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February 6, 2009

Adapt Project No. WA06-14230-PH2

Acrowood Corporation, Inc.
4425 South 3rd Avenue
Everett, Washington 98203

Attention: Mr. Phil Hutmacher

Subject: Supplemental Phase II Environmental Site Assessment
and Groundwater Monitoring
Acrowood Corporation Facility
4425 South 3rd Avenue
Everett, Washington 98203

Dear Mr. Hutmacher,

Adapt Engineering, Inc. (Adapt) is pleased to provide you with the results of our Supplemental Phase II Environmental Site Assessment and Groundwater Monitoring for the above-referenced site. This report is provided for Acrowood Corporation, Inc. (Acrowood) and their agents. If this report is to be reproduced and/or transmitted to a third party, it must be reproduced and/or transmitted in its entirety. Any exceptions will be made only with the written permission of Adapt. Authorization to perform this project was given by Adapt proposal number P-2997, dated June 6, 2007, signed by Mr. Phil Hutmacher on June 27, 2007.

Adapt appreciates the opportunity to be of service to you on this project. Should you have any questions concerning this report, or if we can assist you in any way, please feel free to contact us at (206) 654-7045.

Respectfully Submitted,

Adapt Engineering, Inc.

John T. Bhend

John T. Bhend, L.G.
Senior Project Manager

JTB/jtb

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1.0 INTRODUCTION

1.1 Subject Property Description

Subject Property Description

The subject property is located at 4425 South 3rd Avenue in Everett, Washington (Section 32, Township 29 North, Range 5 East, W.M.). The subject property is approximately 21 acres, and is irregular in shape. The main portion of the subject property is graded level with a steep slope on the eastern property line. According to the USGS topographical map, the graded portion of the site is at an elevation of about 60 feet above mean sea level (amsl) which slopes down to approximately 10 feet amsl at the base of the eastern slope. A location/topographical map is provided as Figure 1.

The subject property is occupied by approximately 13 buildings generally located on the central and northern portions of the site. The southern portion of the site is undeveloped. The remaining areas in the northern and central areas are either gravel covered or paved with asphalt driveway and parking surrounding the administration/office building in the central portion of the site. According to information obtained at the Snohomish County Assessor's office, the site is zoned "M-1" for general manufacturing/industrial uses.

The subject property is currently used as a metal fabrication facility for forestry industry equipment including sorting and chipping machines. The facility was originally constructed in 1913 as an iron and metal foundry (Sumner Iron Works), which occupied the site until the early 1970s. The site has been used as a metal fabrication facility since the early 1970s. Acrowood has occupied the site since 1984.

Site Description

Under the Model Toxics Control Act (MTCA) WAC 173-340-200, a "site" is defined by the nature and extent of contamination associated with one or more releases of hazardous substances prior to any cleanup of that contamination. The subject site, as defined by this definition, appears to be limited to three relatively small areas located within the boundary of the subject property indicated on Figure 2 as the following areas: paint/solvent storage building, former heating oil underground storage tank (UST), and former fuel tank.

1.2 Project Background

Adapt has conducted several phases of environmental assessment and subsurface characterization work at the site. Previous environmental reports prepared by Adapt are summarized below.

- Phase I Environmental Site Assessment (ESA) Report, dated August 20, 1999. Research revealed that the site has been used as either an iron/metal foundry or a metal fabrication facility since 1913. The Phase I ESA identified five potential recognized environmental concerns that included a former (heating oil) underground storage tank (UST), an area where a former fuel oil tank was located, a paint storage building, iron and foundry waste fill area, and a storm water discharge pipe.
- Preliminary Phase II ESA Report, dated November 30, 1999. The Preliminary Phase II ESA consisted of advancing sixteen (16) Geoprobe borings to depths of between 8 and 22 feet in five noted areas of concern. Representative soil and groundwater samples

were collected for analytical testing. The field and analytical data suggested that the following three of the five areas of concern exhibited petroleum hydrocarbon or halogenated volatile organic compounds in soil or groundwater above State of Washington Department of Ecology (Ecology) Model Toxics Control Act Method A or B Cleanup Levels: 1) former heating oil UST, 2) former fuel oil tank, and 3) paint storage building.

- Supplemental Phase II ESA Report, dated May 23, 2000. The Supplemental Phase II was performed to further delineate the extent of soil and groundwater impacts observed in the three areas of concern during Adapt's Preliminary Phase II ESA. The findings of the Supplemental Phase II indicated the impacts to soil and groundwater in the three identified areas of concern appeared to be limited in extent and did not appear to migrate off-site.
- Quarterly Monitoring Well Installation and 1st Quarter Groundwater Quality Monitoring Report, dated August 29, 2000. Based on the results of the Supplemental Phase II ESA, three groundwater-monitoring wells were installed to assess the groundwater beneath the former fuel tank area adjacent to the south wall of the fabrication shop. The results of the quarterly sampling indicated no diesel and heavy oil range hydrocarbons, or polycyclic aromatic hydrocarbons (PAHs), were detected above the standard laboratory detection limits in the up-gradient or down-gradient wells.
- 2nd, 3rd, & 4th Quarter Groundwater Quality Monitoring Reports, dated December 6, 2000, March 14, 2001, and July 2, 2001. Based on the results of the additional quarterly sampling, no diesel and heavy oil range hydrocarbons, or PAHs, were detected above the standard laboratory detection limits in the up-gradient or down-gradient wells.
- Closure Report, dated January 18, 2002. The Closure Report summarized the previous environmental investigation work performed by Adapt and requested a "no further action" (NFA) determination based on the assumption that although site groundwater is impacted with total petroleum hydrocarbons (TPH) and trichloroethene (TCE) above the criteria defined by MTCA Unrestricted Use, the exhibited groundwater concentrations passes the criteria for MTCA Method B Potable Groundwater Protection, and importantly, evidence does not indicate that significant concentrations of analytes are migrating off site. Risk-based calculations indicate existing on-site concentrations of PAHs in groundwater do not pose unacceptable levels of risk to future industrial site development.

A VCP submittal for the subject site was made by Adapt in January 2007. Ecology responded with a Letter of Opinion, dated April 18, 2007, in which Ecology requested the following information:

- *Determination of the areal extent and depth of the trichloroethene groundwater contamination at the paint and solvent storage area using groundwater monitoring wells is needed. The groundwater wells should be sampled quarterly for at least one year. Geoprobe data alone does not offer a complete picture of the aquifer dynamics and is not sufficient.*
- *Determination of the areal extent and depth of a possible plume from the former heating oil tank location using groundwater monitoring wells is needed. The groundwater wells should be sampled quarterly for at least one year. Geoprobe data alone does not offer a complete picture of the aquifer dynamics and is not sufficient.*

- *Because the groundwater flow direction at the former fuel tanks location is southeast as well as east, groundwater monitoring wells located southeast of this feature are needed to determine if an off-site plume of contamination is present.*
- *If the decision for the soil contamination beneath the building at the former fuel tanks location is to leave it in place and not to remediate it, it will be necessary to show, with cross-sections and engineering analysis, why the soil may not be remediated. It is also necessary to show by analysis that the cost of remediation of the soil is disproportionate to leaving it in place.*

1.3 Purpose

The purpose of this assessment is to comply with the additional sampling requirements requested by Ecology in their April 18, 2007 opinion letter.

1.4 Scope of Work and Authorization

The scope of work for this project consisted of the collection of soil and groundwater samples, and analytical testing of recovered samples for volatile organic compounds (VOCs) and petroleum hydrocarbons. This report documents the findings of the four proposed groundwater monitoring events. Authorization to perform this project was given by Adapt proposal number P-2997, dated June 6, 2007, signed by Mr. Phil Hutmacher on June 27, 2007.

2.0 ACTIVITIES

2.1 Soil Boring and Monitoring Well Installation Observations

The completed scope of work consisted of the advancement of eight (8) direct push method borings and four (4) hollow stem auger (HSA) borings on the subject property, with the four HSA borings completed as 2-inch diameter PVC groundwater monitoring wells. The direct push method borings were advanced using a truck-mounted direct push rig and the HSA borings were advance using a truck-mounted drill rig, both owned and operated by ESN Northwest, under subcontract to our firm. The borings were supervised, sampled, and logged by an Adapt Licensed Geologist.

Borings P-23, P-24, P-26, and P-27 were advanced to a depth of 20 feet below ground surface (bgs). Borings P-20A (completed as MW-5), P-21 (completed as MW-6), and P-22 (completed as MW-7) were advanced to a depth of 18 feet bgs and boring P-25 (completed as MW-4) was advanced to a depth of 8 feet bgs. Monitoring wells MW-5, MW-6, and MW-7 were constructed of 10 feet of 0.010-inch slotted PVC screen and monitoring well MW-4 was constructed of 5 feet of 0.010-inch slotted PVC screen. Each well was completed flush to grade with a traffic rated monument and each well head was secured with a locking airtight cap.

Each well was developed using a submersible development pump. The monitoring wells were alternately surged and pumped to clear the casing and filter sand of silt and clay particles and then pumped until the discharge was clear. A total of approximately 20 gallons each was removed from MW-5, MW-6, and MW-7 and approximately 3 gallons was removed from MW-4. Monitoring well MW-4 ran dry after approximately 2 gallons and monitoring well MW-5 ran dry after approximately 6 gallons, both wells were allowed to recover prior to completion of development.

2.2 Soil and Groundwater Sampling

Soil samples were collected continuously from the site exploration. Discrete soil samples for volatile compounds were collected in compliance with EPA Method 5035A. Samples were collected using a Power Stop Handle and Easy Draw Syringe. The syringe was pushed into the core or the bottom of the borehole to obtain an approximately 5-gram soil sample. The soil core was then placed in an empty 40 ml glass vial with a Teflon lined lid with septum. Discrete soil samples from non-volatile compounds were collected using a gloved hand and transferred to a clean 4-ounce glass jar with a Teflon lined lid. After collection, the samples were immediately transported to a subcontracted analytical laboratory under Adapt's chain-of-custody procedures. All soil samples were field screened using a MiniRae 10.6ev Photoionization Detector (PID).

Groundwater samples were collected from monitoring wells MW-1, MW-4, MW-5, MW-6, and MW-7 on August 20, 2007 and January 17, 2008. A peristaltic pump was used to purge water from the monitoring wells until the water became relatively clear and free of significant sediment prior to sampling. Samples were then collected in laboratory prepared glass containers with teflon-lined lids using polyethylene tubing and extracting the sample using a peristaltic pump. Then, as with the soil samples, the groundwater samples were stored at 4 degrees C, and transported as soon as possible to a subcontracted analytical laboratory under Adapt's chain-of-custody procedures.

Top of casing and ground surface elevations of the new monitoring wells were established using optical differential leveling techniques relative to elevation from monitoring well MW-1. An assumed elevation of 100 feet was established for MW-1.

Figure 2 shows the approximate locations of the borings, site boundaries, and pertinent site features. Subsurface exploration logs and soil sampling procedures are described in Appendix B.

3.0 RESULTS

3.1 Subsurface Conditions - Soil

The site borings located near the paint storage building generally disclosed light brown to dark brown, silty sand to a depth of approximately 17 feet bgs and light brown silt at a depth of approximately 17 feet to 18 feet bgs. Groundwater was typically encountered around approximately 10 feet bgs. The site borings located near the former fuel oil tank area generally disclosed light brown to black, silty sand with trace gravel to a depth of approximately 20 feet. Groundwater was typically encountered around approximately 13 feet bgs. All recovered soil samples were field screened using a MiniRae PID.

A sample collected from P-26 (12 feet to 14 feet bgs) exhibited diesel petroleum odors and an elevated PID reading of 23.5 parts-per-million (ppm). Samples collected from P-20A, P-21, P-22, P-23, P-24, P-25, and P-27 did not exhibit obvious signs of contaminant impacts such as stains, odors, or elevated PID readings.

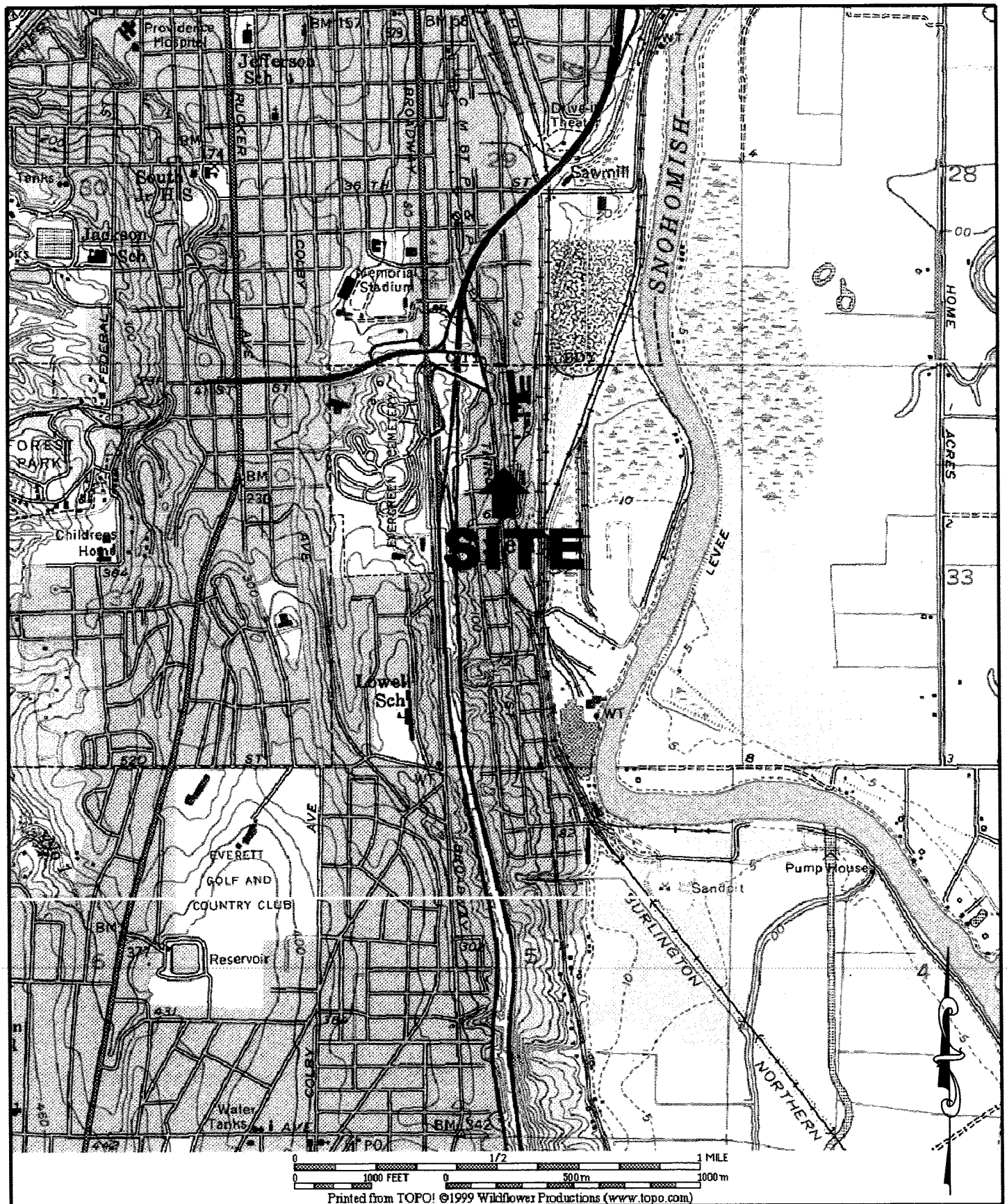

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FIGURE 1 – Location/Topographic Map

Project : Acrowood Corporate Facility
Location : 4425 South 3rd Avenue
Everett, WA 98206
Client : Acrowood Corporation, Inc.
Project No : WA06-14230-PH2 **Date** : 02/05/09

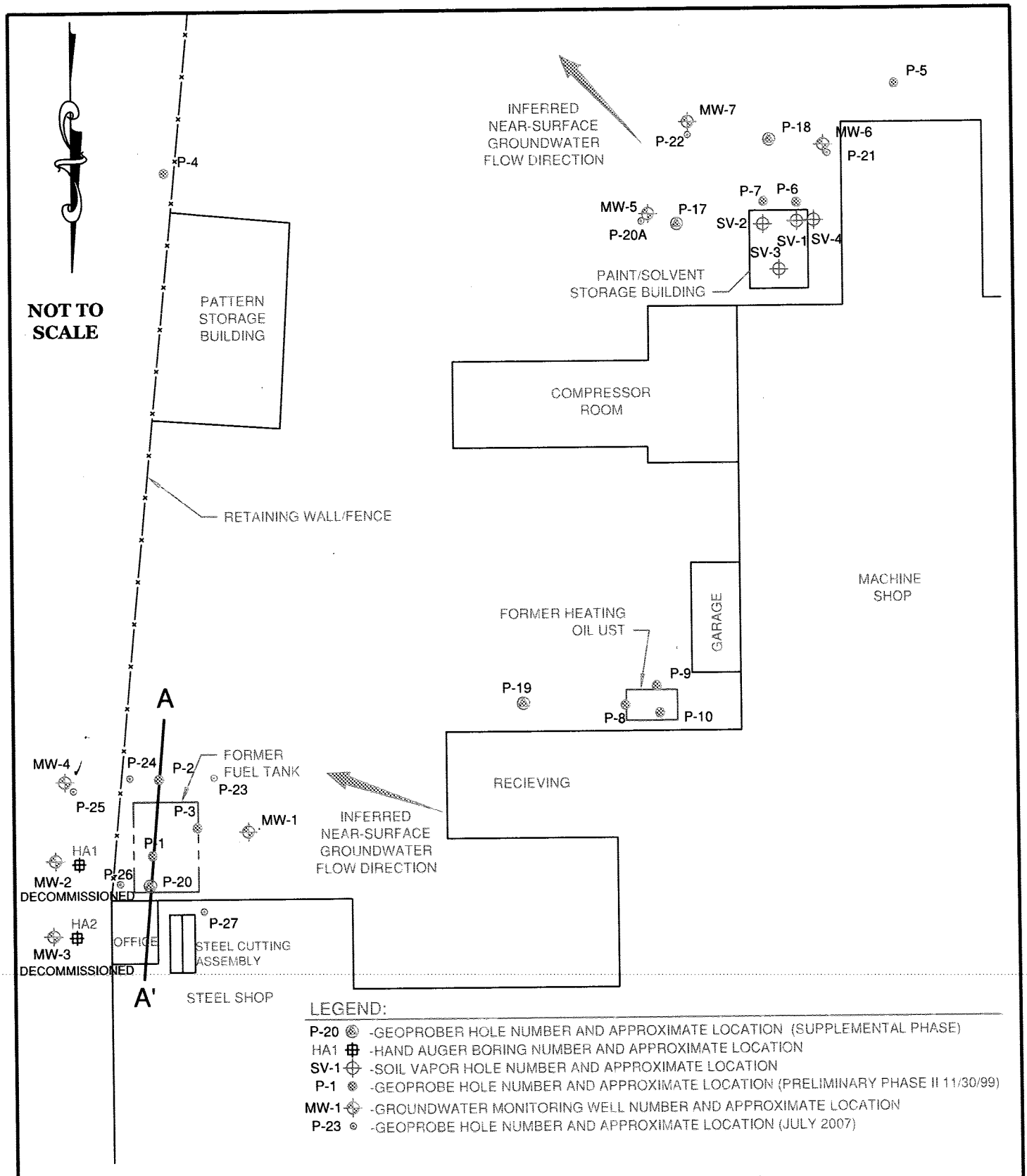

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FIGURE 2 – Site and Exploration Plan

Project : Acrowood Corporate Facility
Location : 4425 South 3rd Avenue
Everett, WA 98206
Client : Acrowood Corporation, Inc.
Project No : WA06-14230-PH2 **Date** : 02/05/09

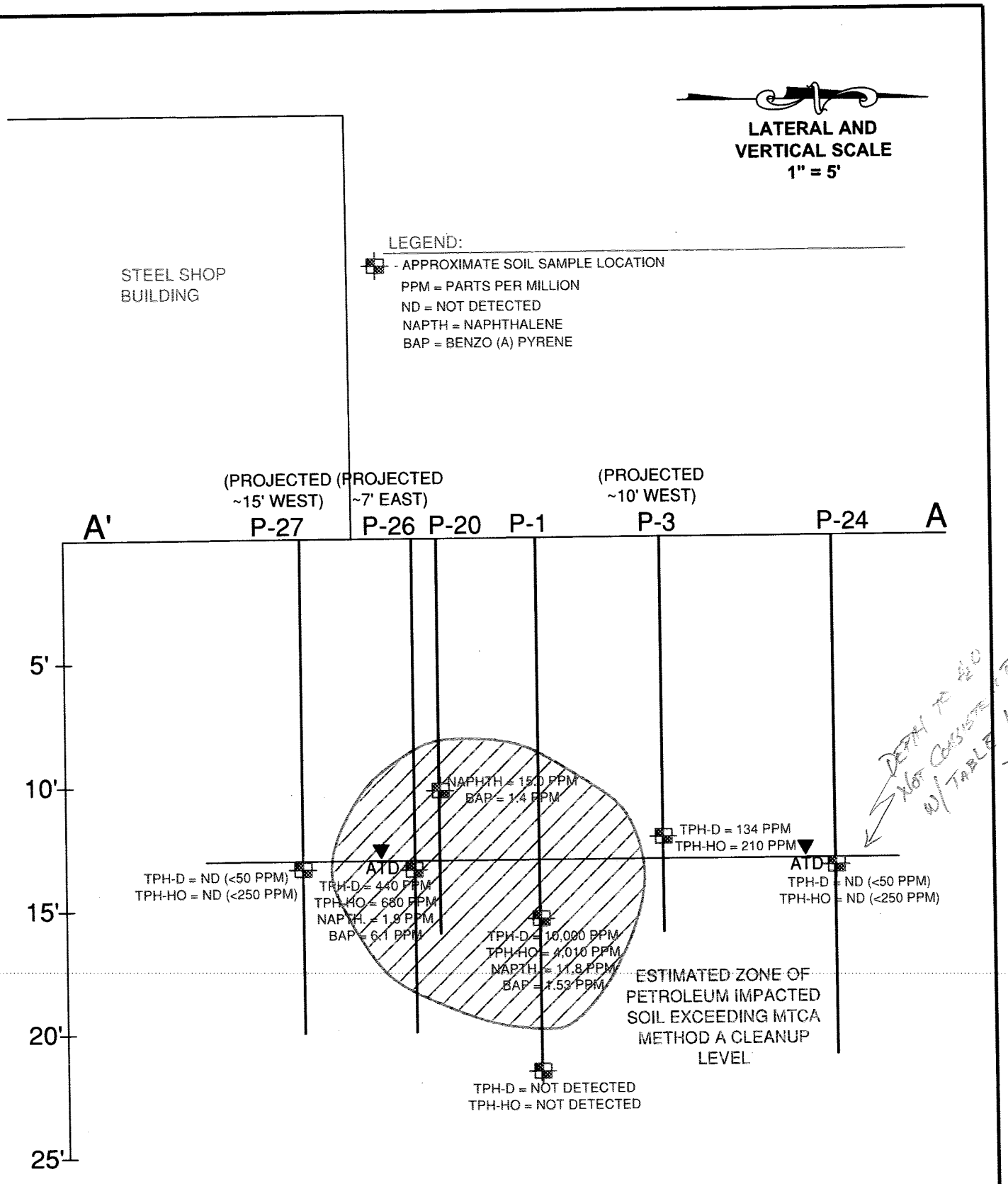

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FIGURE 3 – Cross Section Profile (A–A')

Project : Acrowood Corporate Facility
Location : 4425 South 3rd Avenue
Everett, WA 98206
Client : Acrowood Corporation, Inc.
Project No : WA06-14230-PH2 **Date** : 02/05/09

Table 1: Well Elevations and Water Levels

Well ID	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
	Top of Casing Elevation (feet)						
	100.00	89.92	90.48	89.86	102.34	101.89	102.17
Date	Depth to Water (feet)						
8/10/2000	12.61	5.39	5.52	NA	NA	NA	NA
11/15/2000	12.32	4.34	4.35	NA	NA	NA	NA
2/23/2001	12.21	4.29	4.53	NA	NA	NA	NA
6/5/2001	12.39	4.24	3.90	NA	NA	NA	NA
8/20/2007	12.38	NA	NA	2.05	9.44	8.99	9.48
1/17/2008	9.68	NA	NA	2.75	9.14	8.68	9.23
3/21/2008	10.55	NA	NA	3.00	9.00	8.50	9.15
8/7/2008	NA	NA	NA	NA	NA	NA	NA
	Water Level Elevation (feet)						
8/10/2000	87.39	84.53	84.96	NA	NA	NA	NA
11/15/2000	87.68	85.58	86.13	NA	NA	NA	NA
2/23/2001	87.79	85.63	85.95	NA	NA	NA	NA
6/5/2001	87.61	85.68	86.58	NA	NA	NA	NA
8/20/2007	87.62	NA	NA	87.81	92.90	92.90	92.69
1/17/2008	90.32	NA	NA	87.11	93.20	93.21	92.94
3/21/2008	89.45	NA	NA	86.86	93.34	93.39	93.02
8/7/2008	NA	NA	NA	NA	NA	NA	NA

Notes:

Site datum assigned elevation of 100.00 feet

* = Monitoring wells observed to be damaged beyond repair during the August 2007 sampling and were filled with bentonite.

NA - Not Available

Monitoring wells MW-1, MW-2, and MW-3 installed in August 2000

Monitoring wells MW-4, MW-5, MW-6 and MW-7 installed in July 2007

Monitoring wells MW-2 and MW-3 observed to be damaged beyond repair in August 2007

Table 2: Summary of Analytical Results: Soil - Paint/Solvent Storage Area												
Sample No.	Date	Depth (feet)	PID (ppm)	B	T	E	X	cis-1,2-DCE	TCE	PCE	Acetone	1,1-DCE
P5S2	11/03/99	8	0	ND	ND	ND	ND	ND	ND	ND	ND	ND
P6S2		8	0	ND	ND	ND	ND	ND	ND	ND	ND	ND
P7S2		8	0	ND	ND	ND	ND	ND	**0.055**	ND	ND	ND
SV-1-4	03/27/00	2.5-4	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
SV-2-3.5		2.5-3.5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
SV-3-3.5		2.5-3.5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
SV-4-3.5		2.5-3.5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
P-20A		10-12	*34	<0.03	<0.05	<0.05	<0.1	<0.05	<0.03	<0.025	<0.5	<0.05
P-21		8-10	5	<0.03	<0.05	<0.05	<0.1	<0.05	<0.03	<0.025	<0.5	<0.05
P-22		8-10	9.1	<0.03	<0.05	<0.05	<0.1	<0.05	<0.03	<0.025	<0.5	<0.05
MTCA Method A Soil Cleanup Levels for Industrial Properties				0.03	7	6	9	NA	0.03	0.05	NA	NA

All concentrations given in parts per million (ppm), which is equivalent to milligrams per kilogram
PID = Photo-ionization Detector.
* - PID readings elevated due to potential moisture and calibration issues
NT = Not tested
NA = Not available
ND = Not detected at the standard laboratory detection level
BTEX = benzene, toluene, ethylbenzene, and xylenes
DCE = dichloroethene
TCE = trichloroethene
PCE = tetrachloroethene
DCA = dichloroethane
MTCA = Model Toxics Control Act (MTCA Cleanup levels shown)

Table 2 (Cont'd): Summary of Analytical Results: Soil - Former Fuel Tank Area

Sample No.	Date	Depth (feet)	PID (ppm)	TPH-D	TPH-HO	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(g,h,i)perylene	Benz(a)anthracene	Chrysene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Indeno(1,2,3-cd)pyrene	Dibenz(a,h)anthracene	Total cPAHs
P1S2	11/03/99	8	3	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
P1S3		12	22	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
P1S4		16	35	**10,000**	**4,010**	**11.8**	1.21	6.27	7.88	28.2	6.94	2.86	11.3	0.745	4.62	7.01	**1.53**	0.705	ND	ND	ND	**2.133**
P1S5		19	18	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
P1S6		22	7	ND	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
P2S3		12	0	ND	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
P3S3		12	0	134	210	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
P20-9	04/17/00	6-9	3.7	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
P20-12		9-12	41.3	NT	NT	**15.0**	ND	7.9	12	33	7.1	2.1	11	<2	5.1	8	**1.4**	<2	<2	ND	ND	**1.99**
P20-15		12-15	15.3	ND	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
HA1-4		3-4	5	75	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
NA2-5		4-5	5.4	ND	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
P-23	07/23/07	12-14	2.3	<50	<250	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
P-24		12-14	8.3	<50	<250	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
P-25	07/24/07	4-6	4.8	<50	<250	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
P-26		12-14	23.5	440	680	1.9	<0.5	1.9	2.0	6.8	1.6	1.7	4.0	6.2	3.1	5.0	**6.1**	7.0	2.9	5.4	1.9	**8.2**
P-27		12-14	7.3	<50	<250	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
Toxicity Equivalency Factors (TEF)				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1	0.01	1	0.1	0.1	0.1	0.1	NA
MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses				2,000	2,000	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1	NA	NA	NA	NA	0.1
MTCA Method A Soil Cleanup Levels for Industrial Properties				2,000	2,000	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.0	NA	NA	NA	NA	2

All concentrations given in parts per million (ppm), which is equivalent to milligrams per kilogram
PID = Photo-ionization Detector.
NT = Not tested
NA = Not available
ND = Not detected at the standard laboratory detection level
TPH-D, HO = Total petroleum hydrocarbons – diesel and heavy oil
cPAHs = Carcinogenic polycyclic aromatic hydrocarbons
Total cPAHs = Sum of all (concentrations of individual congener * TEFs of individual congener)
MTCA = Model Toxics Control Act (MTCA Cleanup levels shown)

Table 3: Summary of Analytical Results: Groundwater - Paint/Solvent Storage Area										
Sample No.	Date	B	T	E	X	cis-1,2-DCE	TCE	PCE	Acetone	1,1-DCE
P6W1	11/03/99	ND	ND	ND	ND	ND	**8.38**	ND	ND	ND
P17-W	04/17/00	ND	ND	ND	ND	ND	4.9	ND	ND	ND
P18-W		ND	ND	ND	ND	ND	0.27	ND	ND	ND
MW-5	08/20/07	<1	<1	<1	<2	<1	1.6	<1	<10	<1
	01/17/08	<1	<1	<1	<2	<1	<1	<1	<10	<1
	03/21/08	<1	<1	<1	<2	<1	<1	<1	<10	<1
	08/07/08	<1	<1	<1	<2	<1	<1	<1	<10	<1
MW-6	08/20/07	<1	<1	<1	<2	<1	<1	<1	<10	<1
	01/17/08	<1	<1	<1	<2	<1	<1	<1	<10	<1
	03/21/08	<1	<1	<1	<2	<1	<1	<1	<10	<1
	08/07/08	<1	<1	<1	<2	<1	<1	<1	<10	<1
MW-7	08/20/07	<1	<1	<1	<2	<1	<1	<1	<10	<1
	01/17/08	<1	<1	<1	<2	<1	<1	<1	<10	<1
	03/21/08	<1	<1	<1	<2	<1	<1	<1	<10	<1
	08/07/08	<1	<1	<1	<2	<1	<1	<1	<10	<1
MTCA Method A Cleanup Level		5	1,000	700	1,000	NA	5	5	NA	NA

All concentrations given in parts per billion (ppb), which is equivalent to micrograms per liter
NT = Not tested
NA = Not available
ND = Not detected at the standard laboratory detection level
BTEX = benzene, toluene, ethylbenzene, and xylenes
DCE = dichloroethene
TCE = trichloroethene
PCE = tetrachloroethene
DCA = dichloroethane
MTCA = Model Toxics Control Act (MTCA Cleanup levels shown)

Table 3 (Cont'd): Summary of Analytical Results: Groundwater - Former Fuel Tank Area

Sample No.	Date	TPH-D	TPH-HO	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(g,h,i)perylene	Benz(a)anthracene	Chrysene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Indeno(1,2,3-cd)pyrene	Dibenz(a,h)anthracene	Total cPAHs
P-20	04/17/00	NT	NT	60	2.1	16	17	36	8.7	2.7	12	0.94	5.6	8.8	**1.6**	0.77	<0.5	<0.5	<0.5	**2.325**
HA1-W		ND	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
HA2-W		ND	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
P-23:GW	07/23/07	52	<250	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
P-26:GW	07/24/07	**7,800**	**3,100**	68	<1	17	16	49	11	4.9	18	4.4	7.4	13	**6.2**	5.4	2.3	3.4	1.1	**8.29**
P-27:GW		160	**510**	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
MW-1	08/10/00	<250	<500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	11/15/00	<250	<500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	02/23/01	<250	<500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	06/05/01	<250	<500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	08/20/07	<50	<250	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
	01/17/08	<50	<250	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
	03/21/08	<50	<250	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
	08/07/08	<50	<250	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
MW-2 *	08/10/00	<250	<500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	11/15/00	<250	<500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	02/23/01	<250	<500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	06/05/01	<250	<500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
MW-3 *	08/10/00	<250	<500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	11/15/00	<250	<500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	02/23/01	<250	<500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	06/05/01	<250	<500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
MW-4	08/20/07	<50	<250	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
	01/17/08	<50	<250	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
	03/21/08	<50	<250	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
	08/07/08	<50	<250	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NA
Toxicity Equivalency Factors (TEF)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1	0.01	1	0.1	0.1	0.1	0.1	0.1
MTCA Method A Cleanup Level		500	500	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1	NA	NA	NA	NA	NA

All concentrations given in parts per billion (ppb), which is equivalent to micrograms per liter

* = Monitoring wells observed to be damaged beyond repair during the August 2007 sampling and were filled with bentonite.

NT = Not tested

NA = Not available

ND = Not detected at the standard laboratory detection level

TPH-D, HO = Total petroleum hydrocarbons – diesel and heavy oil

cPAHs = Carcinogenic polycyclic aromatic hydrocarbons

Total cPAHs = Sum of all (concentrations of individual congener * TEFs of individual congener)

MTCA = Model Toxics Control Act (MTCA Cleanup levels shown)

Table 4: Summary of Analytical Results - Soil: Former Heating Oil UST									
Sample No.	Date	Depth (feet)	PID	HCID-G	HCID-D	HCID-HO	TPH-G	TPH-D	TPH-HO
P8S3	11/04/99	8.5	0	<20	**>50**	**>100**	NT	983	1,920
P9S3	11/03/99	12	0	<20	<50	<100	NT	NT	NT
P10S3	11/04/99	12	NA	<20	<50	<100	NT	NT	NT
P19-3	04/17/00	0-3	1.4	NT	NT	NT	NT	NT	NT
P19-6		3-6	2.4	NT	NT	NT	NT	NT	NT
P19-9		6-9	2.1	NT	NT	NT	NT	<30	<60
MTCA Method A Soil Cleanup Level for Unrestricted Land Uses				NA	NA	NA	30/100	2,000	2,000

All concentrations given in parts per million (ppm), which is equivalent to milligrams per kilogram
MTCA = Model Toxics Control Act (MTCA Cleanup levels shown)
Bolded concentrations exceed Method A Cleanup Level
NT = Not tested
NA = Not available
HCID-G, D, HO = Total petroleum hydrocarbons Hydrocarbon Identification – gasoline, diesel, and heavy oil
TPH-G, D, HO = Total petroleum hydrocarbons – gasoline, diesel, and heavy oil

SO WHAT IS IT ?

TPHo – 1920
TPHd – 983
2903

⇒ CLEAN G.W. ?
THEN OK

APPENDIX B

SUBSURFACE EXPLORATION PROCEDURES AND BORING LOGS

APPENDIX B

SUBSURFACE EXPLORATION PROCEDURES AND BORING LOGS

Direct Push Method and Hollow-Stem Auger Borings

The field exploration program conducted for this study consisted of the advancement of eight (8) direct push method borings and four (4) hollow stem auger (HSA) borings. The approximate locations are illustrated on Figure 2. These locations were obtained in the field by taping and pacing from existing site features.

The direct push method and HSA borings were advanced on July 23-24, 2007 by ESN Northwest, a local exploration drilling company under subcontract to our firm. Each direct push method boring consisted of driving a 1.5-Inch outside diameter drill rod and attached sample barrel and probe tip with a truck-mounted drill rig. Each HSA boring consisted of advancing a 4-inch inside diameter hollow-stem auger with a truck-mounted drill rig. During the direct push boring drilling process, soil samples were continuously obtained using a four-foot long sampler. The borings were continuously observed and logged in the field by a geologist from our firm.

Prior to each boring, the drilling equipment were pressure-washed with hot water and sampling tools were scrubbed with a stiff brush and a solution of Liquinox (a phosphate free detergent) and water, and then rinsed with potable water and deionized water.

Characterization of Soil

Relatively undisturbed soil samples were collected at four-foot intervals by using a four-foot long split spoon sample barrel lined with an acetate liner. The split spoon sample barrel was pushed to the desired depth and then pushed into undisturbed soil at the bottom of the boring.

All soil samples were field screened using a MiniRae 10.6ev Photoionization Detector (PID). Field screen samples were collected from the remaining soil in the sampled interval. A representative soil sample was placed in a Ziplock® type plastic bag and sealed. The sample was allowed to volatilize for at least 10 minutes prior to obtaining a reading. The PID tip was inserted in small hole poked in the bag just prior to reading. The highest PID reading observed was recorded on the boring log sheet, as were any subjective olfactory impressions of the sample by the on-site geologist.

Monitoring Well Construction

The monitoring well was constructed of ten (10) feet of 2-inch diameter schedule 40 PVC well screen (0.010 slot size) with the remainder of the wells constructed of 2-inch diameter schedule 40 PVC casing. The screened interval for MW-4 was set at 3 feet to 8 feet bgs and the screened interval for MW-5, MW-6, and MW-7 were set at 8 feet to 18 feet bgs. Filter pack sand was placed around the well screen up to a level approximately two (2) feet above the top of the well screen. Bentonite chips were placed above the filter pack sand to a level approximately two (2) feet bgs. A surface seal consisting of concrete was placed around the well casing and flush-mount well monument from a depth of approximately two (2) feet bgs up to the ground surface.

Adapt Engineering, Inc.
615 - 8th Avenue South
Seattle, Washington 98104

Tel (206) 654-7045
Fax (206) 654-7048

BORING/MONITORING WELL LOG

Project : Acrowood Corporate Facility
Location : 4425 South 3rd Avenue
Everett, WA 98206
Client : Acrowood Corporation, Inc.
Project No : WA06-14230-PH2

Boring No. : **P-20A**

Monitoring Well No.: **MW-5**

Ground Surface Elevation : N/A **Casing Elevation :** N/A
Elevation Reference : N/A

DEPTH (feet)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNT	PID READING	GROUND WATER	WELL	LABORATORY TESTING
0	6" gravel over moist, dark brown, SAND with trace silt		1		-		Flush-mounted monument with concrete seal	
	Becomes brown		2		-			
5			3		-		2" I.D. Schedule 40 PVC with Bentonite chips	
			4		-			
			5		-		Select #2/12 sand backfill	
10	Becomes saturated		6		-	ATD		
					-		2" I.D. Schedule 40 PVC with 0.010" slots	VOCs
15			7		-			
	Boring terminated @ ~18.0' bgs Groundwater encountered @ ~10.0' bgs							
20								
25								
30								

LEGEND

- 2-inch O. D. Split-Spoon Sample (SPT Blowcount)
- 3 ¼ - inch O.D. Dames & Moore Sample (Equivalent SPT Blowcount Shown)
- Shelby Tube Sample
- Grab Sample (Soil Cuttings)
- Sample not Recovered
- ATD — Static Water Level at Time of Drilling
- DATE — Static Water Level Reading
- Perched Groundwater
- D.O.T. Approved Flush-Mounted Well Monument with Concrete Seal
- 2" I.D. Schedule 40 PVC with Bentonite Backfill
- 2" Schedule 40 PVC with 0.20-inch slots and Select 10-20 Sand Backfill
- Bentonite Backfill
- WTPH-D Ext 8010 — Type of Analytical Testing Performed
- XX — Grain Size Analysis (% fines shown)
- XX — 200 Wash (% fines shown)
- TV - Torvane Reading (tsf)
- PP - Pocket Pentetrometer Reading (tsf)
- PID - Photo Ionization Detector (PPM)
- SPT - Standard Penetration Test

MOISTURE CONTENT
0 10 20 30 40 50
Plastic Limit — Natural — Liquid Limit

File Name : Boring & Monitoring Well Log.dwg

Start Date : 07/23/07 **Completion Date :** 07/23/07 **Logged By :** J.T.B.

Adapt Engineering, Inc.
615 - 8th Avenue South
Seattle, Washington 98104
Tel (206) 654-7045
Fax (206) 654-7048

BORING/MONITORING WELL LOG

Project : Acrowood Corporate Facility
Location : 4425 South 3rd Avenue
Everett, WA 98206
Client : Acrowood Corporation, Inc.
Project No : WA06-14230-PH2

Boring No. : **P-21**

Monitoring Well No.: **MW-6**

Ground Surface Elevation : N/A **Casing Elevation :** N/A
Elevation Reference : N/A

Page : 01 of 01

DEPTH (feet)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNT	PID READING	GROUND WATER	WELL	LABORATORY TESTING
0	6" gravel over moist, brown, fine SAND with trace silt		1		-		Flush-mounted monument with concrete seal	
			2		-			
	Moist, light brown SILT		3		-		2" I.D. Schedule 40 PVC with Bentonite chips	
5	Moist, brown, fine SAND with trace silt		4		-			
	Becomes saturated		5		4.1	ATD	Select #2/12 sand backfill	VOCS
10			6		5.0			
			7		3.1		2" I.D. Schedule 40 PVC with 0.010" slots VOC's	
			8		2.9			
15			9		3.5			
	Saturated, light brown, SILT							
	Boring terminated @ ~18.0' bgs Groundwater encountered @ ~8.0' bgs							
20								
25								
30								

LEGEND

- 2-inch O. D. Split-Spoon Sample (SPT Blowcount)
- 3 ¼ - inch O.D. Dames & Moore Sample (Equivalent SPT Blowcount Shown)
- Shelby Tube Sample
- Grab Sample (Soil Cuttings)
- Sample not Recovered
- ATD — Static Water Level at Time of Drilling
- DATE — Static Water Level Reading
- Perched Groundwater
- D.O.T. Approved Flush-Mounted Well Monument with Concrete Seal
- 2" I.D. Schedule 40 PVC with Bentonite Backfill
- 2" Schedule 40 PVC with 0.20-inch slots and Select 10-20 Sand Backfill
- Bentonite Backfill
- NTPH-D Ext 8015 — Type of Analytical Testing Performed
- XX — Grain Size Analysis (% fines shown)
- XX — 200 Wash (% fines shown)
- TV - Torvane Reading (tsf)
- PP - Pocket Penetrometer Reading (tsf)
- PID - Photo Ionization Detector (PPM)
- SPT - Standard Penetration Test

MOISTURE CONTENT

0 10 20 30 40 50

Plastic Limit — Natural — Liquid Limit

File Name : Boring & Monitoring Well Log.dwg

Start Date : 07/23/07 Completion Date : 07/23/07 Logged By : J.T.B.

Adapt Engineering, Inc.
615 - 8th Avenue South
Seattle, Washington 98104

Tel (206) 654-7045
Fax (206) 654-7048

BORING/MONITORING WELL LOG

Project : Acrowood Corporate Facility
Location : 4425 South 3rd Avenue
Everett, WA 98206
Client : Acrowood Corporation, Inc.
Project No : WA06-14230-PH2

Boring No. : **P-22**

Monitoring Well No.: **MW-7**

Ground Surface Elevation : N/A **Casing Elevation :** N/A
Elevation Reference : N/A

Page : 01 of 01

DEPTH (feet)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNT	PID READING	GROUND WATER	WELL	LABORATORY TESTING
0	6" gravel over moist, dark brown, fine SAND with trace silt		1		10		Flush-mounted monument with concrete seal	
	Becomes brown		2		12			
5			3		14		2" I.D. Schedule 40 PVC with Bentonite chips	
			4		11			
			5		9.1	ATD	Select #2/12 sand backfill	VOCS
10	Becomes saturated		6		8.5			
			7		2.2		2" I.D. Schedule 40 PVC with 0.010" slots	
			8		1.3			
15			9		1.3			
	Saturated, light brown, SILT							
	Boring terminated @ ~18.0' bgs Groundwater encountered @ ~9.5' bgs							
20								
25								
30								

LEGEND

- 2-inch O. D. Split-Spoon Sample (SPT Blowcount)
- 3 ¼ - inch O.D. Dames & Moore Sample (Equivalent SPT Blowcount Shown)
- Shelby Tube Sample
- Grab Sample (Soil Cuttings)
- Sample not Recovered
- ATD — Static Water Level at Time of Drilling
- DATE — Static Water Level Reading
- Perched Groundwater
- D.O.T. Approved Flush-Mounted Well Monument with Concrete Seal
- 2" I.D. Schedule 40 PVC with Bentonite Backfill
- 2" Schedule 40 PVC with 0.20-inch slots and Select 10-20 Sand Backfill
- Bentonite Backfill
- NTPH-Dx 8015 — Type of Analytical Testing Performed
- XX — Grain Size Analysis (% fines shown)
- XX — 200 Wash (% fines shown)
- TV - Torvane Reading (tsf)
- PP - Pocket Penetrometer Reading (tsf)
- PID - Photo Ionization Detector (PPM)
- SPT - Standard Penetration Test

0 10 20 30 40 50
MOISTURE CONTENT
Plastic Limit — Natural — Liquid Limit

File Name : Boring & Monitoring Well Log.dwg

Start Date : 07/23/07 Completion Date : 07/23/07 Logged By : J.T.B.

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615 - 8th Avenue South
Seattle, Washington 98104

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BORING/MONITORING WELL LOG

Project : Acrowood Corporate Facility
Location : 4425 South 3rd Avenue
Everett, WA 98206
Client : Acrowood Corporation, Inc.
Project No : WA06-14230-PH2

Boring No. : **P-23**

Monitoring Well No.: -

Ground Surface Elevation : N/A **Casing Elevation :** N/A
Elevation Reference : N/A

Page : 01 of 01

DEPTH (feet)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNT	PID READING	GROUND WATER	WELL	LABORATORY TESTING
0	Moist, dark brown to black, fine SAND with little gravel and trace silt		1		1.5			
	Decrease in gravel content		2		1.9			
5	Becomes brown to light brown, no gravel		3		1.9			
			4		2.5			
			5		3.5			
10	Becomes saturated, trace to little gravel		6		2.3	ATD		TPH PAHS
			7		3.3			
15			8		2.5			
	No gravel		9		3.1			
20	Boring terminated @ ~20.0' bgs Groundwater encountered @ ~13.0' bgs							
25								
30								

LEGEND

- 2-inch O. D. Split-Spoon Sample (SPT Blowcount)
- 3 ¼ - inch O.D. Dames & Moore Sample (Equivalent SPT Blowcount Shown)
- Shelby Tube Sample
- Grab Sample (Soil Cuttings)
- Sample not Recovered
- ATD — Static Water Level at Time of Drilling
- DATE — Static Water Level Reading
- Perched Groundwater
- D.O.T. Approved Flush-Mounted Well Monument with Concrete Seal
- 2" I.D. Schedule 40 PVC with Bentonite Backfill
- 2" Schedule 40 PVC with 0.20-inch slots and Select 10-20 Sand Backfill
- Bentonite Backfill
- NTPH-D Ext. 8010 — Type of Analytical Testing Performed
- XX — Grain Size Analysis (% fines shown)
- XX — 200 Wash (% fines shown)
- TV - Torvane Reading (tsf)
- PP - Pocket Pentetrometer Reading (tsf)
- PID - Photo Ionization Detector (PPM)
- SPT - Standard Penetration Test

MOISTURE CONTENT
0 10 20 30 40 50
Plastic Limit — Natural — Liquid Limit

File Name : Boring & Monitoring Well Log.dwg

Start Date : 07/23/07 Completion Date : 07/23/07 Logged By : J.T.B.

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BORING/MONITORING WELL LOG

Project : Acrowood Corporate Facility
Location : 4425 South 3rd Avenue
Everett, WA 98206
Client : Acrowood Corporation, Inc.
Project No : WA06-14230-PH2

Boring No. : **P-24**

Monitoring Well No.: -

Ground Surface Elevation : N/A **Casing Elevation :** N/A
Elevation Reference : N/A

DEPTH (feet)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNT	PID READING	GROUND WATER	WELL	LABORATORY TESTING
0	Moist, dark brown to black, fine SAND with little gravel		1		5.5			
			2		6.3			
			3		6.7			
5								
	Becomes brown, trace silt and trace gravel		4		9.0			
			5		7.1			
10	Becomes dark brown, increase silt		6		7.4			
	Becomes saturated, trace silt		7		8.3	ATD		TPH PAHS
			8		8.4			
15	Increase silt content		9		8.5			
			10		6.5			
20	Boring terminated @ ~20.0' bgs Groundwater encountered @ ~13.0' bgs							
25								
30								

LEGEND

- 2-inch O. D. Split-Spoon Sample (SPT Blowcount)
- 3 ¼ - inch O.D. Dames & Moore Sample (Equivalent SPT Blowcount Shown)
- Shelby Tube Sample
- Grab Sample (Soil Cuttings)
- Sample not Recovered
- ATD — Static Water Level at Time of Drilling
- DATE — Static Water Level Reading
- Perched Groundwater
- D.O.T. Approved Flush-Mounted Well Monument with Concrete Seal
- 2" I.D. Schedule 40 PVC with Bentonite Backfill
- 2" Schedule 40 PVC with 0.20-inch slots and Select 10-20 Sand Backfill
- Bentonite Backfill
- WTPHD Ext 8015 — Type of Analytical Testing Performed
- XX — Grain Size Analysis (% fines shown)
- XX — 200 Wash (% fines shown)
- TV - Torvane Reading (tsf)
- PP - Pocket Pentetrometer Reading (tsf)
- PID - Photo Ionization Detector (PPM)
- SPT - Standard Penetration Test

MOISTURE CONTENT
0 10 20 30 40 50
Plastic Limit — Natural — Liquid Limit

File Name : Boring & Monitoring Well Log.dwg

Start Date : 07/23/07 Completion Date : 07/23/07 Logged By : J.T.B.

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BORING/MONITORING WELL LOG

Project : Acrowood Corporate Facility
Location : 4425 South 3rd Avenue
Everett, WA 98206
Client : Acrowood Corporation, Inc.
Project No : WA06-14230-PH2

Boring No. : **P-25**

Monitoring Well No.: **MW-4**

Ground Surface Elevation : N/A **Casing Elevation :** N/A
Elevation Reference : N/A

Page : 01 of 01

DEPTH (feet)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNT	PID READING	GROUND WATER	WELL	LABORATORY TESTING
0	Moist, dark brown, fine SAND with little silt		1		3.6		Flush-mounted monument with concrete seal	
	Becomes brown		2		4.7		2" I.D. Schedule 40 PVC with Bentonite chips	
			3		4.8	ATD	Select #2/12 sand backfill	TPH PAHS
5	Becomes saturated		4		4.5		2" I.D. Schedule 40 PVC with 0.010" slots	
	Boring terminated @ ~8.0' bgs Groundwater encountered @ ~5.0' bgs							
10								
15								
20								
25								
30								

LEGEND

- 2-inch O. D. Split-Spoon Sample (SPT Blowcount)
- 3 ¼ - inch O.D. Dames & Moore Sample (Equivalent SPT Blowcount Shown)
- Shelby Tube Sample
- Grab Sample (Soil Cuttings)
- Sample not Recovered
- ATD Static Water Level at Time of Drilling
- DATE Static Water Level Reading
- Perched Groundwater
- D.O.T. Approved Flush-Mounted Well Monument with Concrete Seal
- 2" I.D. Schedule 40 PVC with Bentonite Backfill
- 2" Schedule 40 PVC with 0.20-inch slots and Select 10-20 Sand Backfill
- Bentonite Backfill
- Type of Analytical Testing Performed
- XX Grain Size Analysis (% fines shown)
- XX 200 Wash (% fines shown)
- TV - Torvane Reading (tsf)
- PP - Pocket Pentetrometer Reading (tsf)
- PID - Photo Ionization Detector (PPM)
- SPT - Standard Penetration Test

0 10 20 30 40 50
MOISTURE CONTENT
Plastic Limit — Natural — Liquid Limit

File Name : Boring & Monitoring Well Log.dwg

Start Date : 07/24/07 Completion Date : 07/24/07 Logged By : J.T.B.

Adapt Engineering, Inc.
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Seattle, Washington 98104

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BORING/MONITORING WELL LOG

Project : Acrowood Corporate Facility
Location : 4425 South 3rd Avenue
Everett, WA 98206
Client : Acrowood Corporation, Inc.
Project No : WA06-14230-PH2

Boring No. : **P-26**

Monitoring Well No.: -

Ground Surface Elevation : N/A **Casing Elevation :** N/A
Elevation Reference : N/A

Page : 01 of 01

DEPTH (feet)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNT	PID READING	GROUND WATER	WELL	LABORATORY TESTING
0	Moist, brown to dark brown, fine SAND with trace silt and gravel		1		5.8			
	Becomes black		2		9.6			
5			3		6.8			
			4		5.3			
	Increase in silt content		5		5.8			
10			6		4.5			
	Strong petroleum odor		7		23.5			TPH PAHS
	Becomes saturated, light gray, very slight petroleum odor		8		5.4	ATD		
15					-			
			9		5.1			
20	Boring terminated @ ~20.0' bgs Groundwater encountered @ ~14.0' bgs							
25								
30								

MOISTURE CONTENT
0 10 20 30 40 50
Plastic Limit — Natural — Liquid Limit

LEGEND

- 2-inch O. D. Split-Spoon Sample (SPT Blowcount)
- 3 ¼ - inch O.D. Dames & Moore Sample (Equivalent SPT Blowcount Shown)
- Shelby Tube Sample
- Grab Sample (Soil Cuttings)
- Sample not Recovered
- ATD — Static Water Level at Time of Drilling
- DATE — Static Water Level Reading
- Perched Groundwater
- D.O.T. Approved Flush-Mounted Well Monument with Concrete Seal
- 2" I.D. Schedule 40 PVC with Bentonite Backfill
- 2" Schedule 40 PVC with 0.20-inch slots and Select 10-20 Sand Backfill
- Bentonite Backfill
- Type of Analytical Testing Performed
- XX — Grain Size Analysis (% fines shown)
- XX — 200 Wash (% fines shown)
- TV - Torvane Reading (tsf)
- PP - Pocket Pentetrometer Reading (tsf)
- PID - Photo Ionization Detector (PPM)
- SPT - Standard Penetration Test

File Name : Boring & Monitoring Well Log.dwg

Start Date : 07/24/07 Completion Date : 07/24/07 Logged By : J.T.B.

APPENDIX C

LABORATORY CERTIFICATION

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

August 1, 2007

Charles Cacek, Project Manager
Adapt Engineering
615 8th Avenue South
Seattle, WA 98104

Dear Mr. Cacek:

Included are the results from the testing of material submitted on July 24, 2007 from the WA07-14230-PH2, F&BI 707306 project. There are 18 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: John Bhend
ADP0801R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on July 24, 2007 by Friedman & Bruya, Inc. from the Adapt Engineering WA07-14230-PH2, F&BI 707306 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Adapt Engineering
707306-01	P-20:6-8'
707306-02	P-20:10-12'
707306-03	P-21:6-8'
707306-04	P-21:8-10'
707306-05	P-22:4-6'
707306-06	P-22:8-10'
707306-07	P-23:2-4'
707306-08	P-23:6-8'
707306-09	P-23:12-14'
707306-10	P-23:GW
707306-11	P-24:2-4'
707306-12	P-24:6-8'
707306-13	P-24:12-14'
707306-14	P-25:4-6'
707306-15	P-26:2-4'
707306-16	P-26:12-14'
707306-17	P-26:14-16'
707306-18	P-26:GW
707306-19	P-27:2-4'
707306-20	P-27:8-10'
707306-21	P-27:12-14'
707306-22	P-27:GW

All quality control requirements were acceptable.

Date of Report: 08/01/07
Date Received: 07/24/07
Project: WA07-14230-PH2, F&BI 707306
Date Extracted: 07/26/07
Date Analyzed: 07/26/07

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 67-127)
P-23:12-14' 707306-09	<50	<250	97
P-24:12-14' 707306-13	<50	<250	104
P-25:4-6' 707306-14	<50	<250	99
P-26:12-14' 707306-16	440	680	97
P-27:12-14' 707306-21	<50	<250	94
Method Blank	<50	<250	97

Date of Report: 08/01/07
Date Received: 07/24/07
Project: WA07-14230-PH2, F&BI 707306
Date Extracted: 07/25/07
Date Analyzed: 0725/07 and 07/27/07

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
P-23:GW 707306-10	52	<250	98
P-26:GW 707306-18	7,800	3,100	113
P-27:GW 707306-22	160 x	510	118
Method Blank	<50	<250	88

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	P-20:10-12'	Client:	Adapt Engineering
Date Received:	07/24/07	Project:	WA07-14230-PH2, F&BI 707306
Date Extracted:	07/25/07	Lab ID:	707306-02
Date Analyzed:	07/26/07	Data File:	072530.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	65	56	118
1,2-Dichloroethane-d4	65	59	116
Toluene-d8	66	51	121
4-Bromofluorobenzene	68	32	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	Tetrachloroethene	<0.025
Chloromethane	<0.05	Dibromochloromethane	<0.05
Vinyl chloride	<0.05	1,2-Dibromoethane (EDB)	<0.05
Bromomethane	<0.5	Chlorobenzene	<0.05
Chloroethane	<0.5	Ethylbenzene	<0.05
Trichlorofluoromethane	<0.5	1,1,1,2-Tetrachloroethane	<0.05
Acetone	<0.5	m,p-Xylene	<0.1
1,1-Dichloroethene	<0.05	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.1
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.1
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.1
1,3-Dichloropropane	<0.05		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	P-21:8-10'	Client:	Adapt Engineering
Date Received:	07/24/07	Project:	WA07-14230-PH2, F&BI 707306
Date Extracted:	07/25/07	Lab ID:	707306-04
Date Analyzed:	07/26/07	Data File:	072531.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	63	56	118
1,2-Dichloroethane-d4	62	59	116
Toluene-d8	66	51	121
4-Bromofluorobenzene	69	32	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	Tetrachloroethene	<0.025
Chloromethane	<0.05	Dibromochloromethane	<0.05
Vinyl chloride	<0.05	1,2-Dibromoethane (EDB)	<0.05
Bromomethane	<0.5	Chlorobenzene	<0.05
Chloroethane	<0.5	Ethylbenzene	<0.05
Trichlorofluoromethane	<0.5	1,1,1,2-Tetrachloroethane	<0.05
Acetone	<0.5	m,p-Xylene	<0.1
1,1-Dichloroethene	<0.05	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.1
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.1
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.1
1,3-Dichloropropane	<0.05		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	P-22:8-10'	Client:	Adapt Engineering
Date Received:	07/24/07	Project:	WA07-14230-PH2, F&BI 707306
Date Extracted:	07/25/07	Lab ID:	707306-06
Date Analyzed:	07/26/07	Data File:	072532.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	81	56	118
1,2-Dichloroethane-d4	81	59	116
Toluene-d8	85	51	121
4-Bromofluorobenzene	91	32	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	Tetrachloroethene	<0.025
Chloromethane	<0.05	Dibromochloromethane	<0.05
Vinyl chloride	<0.05	1,2-Dibromoethane (EDB)	<0.05
Bromomethane	<0.5	Chlorobenzene	<0.05
Chloroethane	<0.5	Ethylbenzene	<0.05
Trichlorofluoromethane	<0.5	1,1,1,2-Tetrachloroethane	<0.05
Acetone	<0.5	m,p-Xylene	<0.1
1,1-Dichloroethene	<0.05	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.1
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.1
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.1
1,3-Dichloropropane	<0.05		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	Method Blank	Client:	Adapt Engineering
Date Received:	Not Applicable	Project:	WA07-14230-PH2, F&BI 707306
Date Extracted:	07/25/07	Lab ID:	071099 mb
Date Analyzed:	07/25/07	Data File:	072507.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	75	56	118
1,2-Dichloroethane-d4	83	59	116
Toluene-d8	84	51	121
4-Bromofluorobenzene	82	32	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	Tetrachloroethene	<0.025
Chloromethane	<0.05	Dibromochloromethane	<0.05
Vinyl chloride	<0.05	1,2-Dibromoethane (EDB)	<0.05
Bromomethane	<0.5	Chlorobenzene	<0.05
Chloroethane	<0.5	Ethylbenzene	<0.05
Trichlorofluoromethane	<0.5	1,1,1,2-Tetrachloroethane	<0.05
Acetone	<0.5	m,p-Xylene	<0.1
1,1-Dichloroethene	<0.05	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.1
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.1
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.1
1,3-Dichloropropane	<0.05		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270C SIM

Client Sample ID:	P-26:12-14'	Client:	Adapt Engineering
Date Received:	07/24/07	Project:	WA07-14230-PH2, F&BI 707306
Date Extracted:	07/26/07	Lab ID:	707306-16 1/250
Date Analyzed:	07/26/07	Data File:	072616.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	0 ds	50	150
Benzo(a)anthracene-d12	0 ds	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	1.9
Acenaphthylene	<0.5
Acenaphthene	1.9
Fluorene	2.0
Phenanthrene	6.8
Anthracene	1.6
Fluoranthene	1.7
Pyrene	4.0
Benz(a)anthracene	3.1
Chrysene	5.0
Benzo(a)pyrene	6.1
Benzo(b)fluoranthene	7.0
Benzo(k)fluoranthene	2.9
Indeno(1,2,3-cd)pyrene	5.4
Dibenz(a,h)anthracene	1.9
Benzo(g,h,i)perylene	6.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270C SIM

Client Sample ID:	Method Blank	Client:	Adapt Engineering
Date Received:	Not Applicable	Project:	WA07-14230-PH2, F&BI 707306
Date Extracted:	07/26/07	Lab ID:	071116mb 1/5
Date Analyzed:	07/26/07	Data File:	072612.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	101	50	150
Benzo(a)anthracene-d12	91	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	<0.01
Anthracene	<0.01
Fluoranthene	<0.01
Pyrene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	<0.01

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270C SIM

Client Sample ID:	P-26:GW	Client:	Adapt Engineering
Date Received:	07/24/07	Project:	WA07-14230-PH2, F&BI 707306
Date Extracted:	07/25/07	Lab ID:	707306-18 1/10
Date Analyzed:	07/25/07	Data File:	072517.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	123	50	150
Benzo(a)anthracene-d12	91	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	68
Acenaphthylene	<1
Acenaphthene	17
Fluorene	16
Phenanthrene	49
Anthracene	11
Fluoranthene	4.9
Pyrene	18
Benz(a)anthracene	7.4
Chrysene	13
Benzo(a)pyrene	6.2
Benzo(b)fluoranthene	5.4
Benzo(k)fluoranthene	2.3
Indeno(1,2,3-cd)pyrene	3.4
Dibenz(a,h)anthracene	1.1
Benzo(g,h,i)perylene	4.4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270C SIM

Client Sample ID:	Method Blank	Client:	Adapt Engineering
Date Received:	Not Applicable	Project:	WA07-14230-PH2, F&BI 707306
Date Extracted:	07/25/07	Lab ID:	071114mb
Date Analyzed:	07/25/07	Data File:	072507.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	98	50	150
Benzo(a)anthracene-d12	95	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.1
Acenaphthylene	<0.1
Acenaphthene	<0.1
Fluorene	<0.1
Phenanthrene	<0.1
Anthracene	<0.1
Fluoranthene	<0.1
Pyrene	<0.1
Benz(a)anthracene	<0.1
Chrysene	<0.1
Benzo(a)pyrene	<0.1
Benzo(b)fluoranthene	<0.1
Benzo(k)fluoranthene	<0.1
Indeno(1,2,3-cd)pyrene	<0.1
Dibenz(a,h)anthracene	<0.1
Benzo(g,h,i)perylene	<0.1

Date of Report: 08/01/07
Date Received: 07/24/07
Project: WA07-14230-PH2, F&BI 707306

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 707306-21 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	101	110	69-125	9

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	112	70-127

Date of Report: 08/01/07
Date Received: 07/24/07
Project: WA07-14230-PH2, F&BI 707306

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: 707314-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	<0.05	<0.05	nm
Chloromethane	mg/kg (ppm)	<0.05	<0.05	nm
Vinyl chloride	mg/kg (ppm)	<0.05	<0.05	nm
Bromomethane	mg/kg (ppm)	<0.05	<0.05	nm
Chloroethane	mg/kg (ppm)	<0.05	<0.05	nm
Trichlorofluoromethane	mg/kg (ppm)	<0.05	<0.05	nm
Acetone	mg/kg (ppm)	<0.5	<0.5	nm
1,1-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
Methylene chloride	mg/kg (ppm)	<0.5	<0.5	nm
trans-1,2-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
1,1-Dichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
2,2-Dichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
cis-1,2-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
Chloroform	mg/kg (ppm)	<0.05	<0.05	nm
2-Butanone (MEK)	mg/kg (ppm)	<0.5	<0.5	nm
1,2-Dichloroethane (EDC)	mg/kg (ppm)	<0.05	<0.05	nm
1,1,1-Trichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
1,1-Dichloropropene	mg/kg (ppm)	<0.05	<0.05	nm
Carbon Tetrachloride	mg/kg (ppm)	<0.05	<0.05	nm
Benzene	mg/kg (ppm)	<0.03	<0.03	nm
Trichloroethene	mg/kg (ppm)	0.17	0.18	6
1,2-Dichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
Bromodichloromethane	mg/kg (ppm)	<0.05	<0.05	nm
Dibromomethane	mg/kg (ppm)	<0.05	<0.05	nm
4-Methyl-2-pentanone	mg/kg (ppm)	<0.5	<0.5	nm
cis-1,3-Dichloropropene	mg/kg (ppm)	<0.05	<0.05	nm
Toluene	mg/kg (ppm)	<0.05	<0.05	nm
trans-1,3-Dichloropropene	mg/kg (ppm)	<0.05	<0.05	nm
1,1,2-Trichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
2-Hexanone	mg/kg (ppm)	<0.5	<0.5	nm
1,3-Dichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
Tetrachloroethene	mg/kg (ppm)	<0.025	<0.025	nm
Dibromochloromethane	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dibromoethane (EDB)	mg/kg (ppm)	<0.05	<0.05	nm
Chlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
Ethylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	<0.05	<0.05	nm
m,p-Xylene	mg/kg (ppm)	<0.1	<0.1	nm
o-Xylene	mg/kg (ppm)	<0.05	<0.05	nm
Styrene	mg/kg (ppm)	<0.05	<0.05	nm
Isopropylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
Bromoform	mg/kg (ppm)	<0.05	<0.05	nm
n-Propylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
Bromobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,3,5-Trimethylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	<0.05	<0.05	nm
1,2,3-Trichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
2-Chlorotoluene	mg/kg (ppm)	<0.05	<0.05	nm
4-Chlorotoluene	mg/kg (ppm)	<0.05	<0.05	nm
tert-Butylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,2,4-Trimethylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
sec-Butylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
p-Isopropyltoluene	mg/kg (ppm)	<0.05	<0.05	nm
1,3-Dichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,4-Dichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	<0.05	<0.05	nm
1,2,4-Trichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
Hexachlorobutadiene	mg/kg (ppm)	<0.05	<0.05	nm
Naphthalene	mg/kg (ppm)	<0.05	<0.05	nm
1,2,3-Trichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm

Date of Report: 08/01/07
Date Received: 07/24/07
Project: WA07-14230-PH2, F&BI 707306

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2.5	52	54	10-146	4
Chloromethane	mg/kg (ppm)	2.5	71	73	6-137	3
Vinyl chloride	mg/kg (ppm)	2.5	79	83	22-139	5
Bromomethane	mg/kg (ppm)	2.5	100	107	41-119	7
Chloroethane	mg/kg (ppm)	2.5	152 vo	165 vo	38-142	8
Trichlorofluoromethane	mg/kg (ppm)	2.5	134	143	5-198	6
Acetone	mg/kg (ppm)	2.5	115	115	10-230	0
1,1-Dichloroethene	mg/kg (ppm)	2.5	101	103	46-131	2
Methylene chloride	mg/kg (ppm)	2.5	69	72	46-131	4
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	89	91	67-120	2
1,1-Dichloroethane	mg/kg (ppm)	2.5	90	87	77-117	3
2,2-Dichloropropane	mg/kg (ppm)	2.5	98	100	53-139	2
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	94	90	75-122	4
Chloroform	mg/kg (ppm)	2.5	91	88	74-118	3
2-Butanone (MEK)	mg/kg (ppm)	2.5	110	115	11-189	4
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	91	91	74-122	0
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	88	89	74-125	1
1,1-Dichloropropene	mg/kg (ppm)	2.5	92	90	73-120	2
Carbon Tetrachloride	mg/kg (ppm)	2.5	96	97	72-125	1
Benzene	mg/kg (ppm)	2.5	91	88	70-122	3
Trichloroethene	mg/kg (ppm)	2.5	90	87	81-124	3
1,2-Dichloropropane	mg/kg (ppm)	2.5	92	92	77-131	0
Bromodichloromethane	mg/kg (ppm)	2.5	95	94	75-125	1
Dibromomethane	mg/kg (ppm)	2.5	99	98	80-125	1
4-Methyl-2-pentanone	mg/kg (ppm)	2.5	108	116	23-187	7
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	100	100	75-136	0
Toluene	mg/kg (ppm)	2.5	94	90	66-126	4
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	106	103	72-132	3
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	103	101	65-136	2
2-Hexanone	mg/kg (ppm)	2.5	119	127	22-196	7
1,3-Dichloropropane	mg/kg (ppm)	2.5	100	99	72-130	1
Tetrachloroethene	mg/kg (ppm)	2.5	92	90	79-127	2
Dibromochloromethane	mg/kg (ppm)	2.5	105	105	76-130	0
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	105	106	74-132	1
Chlorobenzene	mg/kg (ppm)	2.5	91	91	79-115	0
Ethylbenzene	mg/kg (ppm)	2.5	92	91	64-123	1
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	93	94	69-135	1
m,p-Xylene	mg/kg (ppm)	5	96	93	66-120	3
o-Xylene	mg/kg (ppm)	2.5	95	95	66-118	0
Styrene	mg/kg (ppm)	2.5	99	97	81-112	2
Isopropylbenzene	mg/kg (ppm)	2.5	93	93	79-112	0
Bromoform	mg/kg (ppm)	2.5	114	118	76-129	3
n-Propylbenzene	mg/kg (ppm)	2.5	94	89	81-118	5
Bromobenzene	mg/kg (ppm)	2.5	96	90	72-122	6
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	96	93	74-111	3
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	107	105	57-143	2
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	108	107	61-137	1
2-Chlorotoluene	mg/kg (ppm)	2.5	94	87	83-114	8
4-Chlorotoluene	mg/kg (ppm)	2.5	96	87	82-113	10
tert-Butylbenzene	mg/kg (ppm)	2.5	93	90	78-111	3
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	97	92	75-111	5
sec-Butylbenzene	mg/kg (ppm)	2.5	94	88	78-119	7
p-Isopropyltoluene	mg/kg (ppm)	2.5	95	92	74-114	3
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	93	89	82-114	4
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	92	89	79-109	3
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	94	93	81-117	1
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	114	115	42-166	1
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	105	99	70-129	6
Hexachlorobutadiene	mg/kg (ppm)	2.5	89	81	50-153	9
Naphthalene	mg/kg (ppm)	2.5	123	119	65-138	3
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	106	101	74-125	5

Note: The initial calibration verification result for methylene chloride exceeded 15% deviation. The average deviation for all compounds was not greater than 15%; therefore, the initial calibration is considered valid.

Note: The calibration verification result for chloromethane exceeded 15% deviation. The average deviation for all compounds was not greater than 15%; therefore, the calibration is considered valid.

Date of Report: 08/01/07
Date Received: 07/24/07
Project: WA07-14230-PH2, F&BI 707306

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PNA'S BY EPA METHOD 8270C SIM

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	mg/kg (ppm)	0.17	89	93	63-104	4
Acenaphthylene	mg/kg (ppm)	0.17	88	88	65-105	0
Acenaphthene	mg/kg (ppm)	0.17	88	91	62-106	3
Fluorene	mg/kg (ppm)	0.17	88	93	59-110	6
Phenanthrene	mg/kg (ppm)	0.17	84	92	62-104	9
Anthracene	mg/kg (ppm)	0.17	86	91	64-102	6
Fluoranthene	mg/kg (ppm)	0.17	89	98	66-109	10
Pyrene	mg/kg (ppm)	0.17	88	97	66-109	10
Benz(a)anthracene	mg/kg (ppm)	0.17	79	85	60-96	7
Chrysene	mg/kg (ppm)	0.17	82	90	63-98	9
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	81	89	58-102	9
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	84	91	68-109	8
Benzo(a)pyrene	mg/kg (ppm)	0.17	78	82	63-106	5
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	81	88	63-108	8
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	80	87	63-111	8
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	82	88	62-108	7

Date of Report: 08/01/07
Date Received: 07/24/07
Project: WA07-14230-PH2, F&BI 707306

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR PNA'S BY EPA METHOD 8270C SIM

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	5	81	87	70-130	7
Acenaphthylene	ug/L (ppb)	5	84	90	70-130	7
Acenaphthene	ug/L (ppb)	5	82	88	70-130	7
Fluorene	ug/L (ppb)	5	83	89	70-130	7
Phenanthrene	ug/L (ppb)	5	81	86	70-130	6
Anthracene	ug/L (ppb)	5	88	93	70-130	6
Fluoranthene	ug/L (ppb)	5	91	95	70-130	4
Pyrene	ug/L (ppb)	5	91	95	70-130	4
Benz(a)anthracene	ug/L (ppb)	5	78	84	70-130	7
Chrysene	ug/L (ppb)	5	79	85	70-130	7
Benzo(b)fluoranthene	ug/L (ppb)	5	85	93	70-130	9
Benzo(k)fluoranthene	ug/L (ppb)	5	83	88	70-130	6
Benzo(a)pyrene	ug/L (ppb)	5	86	91	70-130	6
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	5	87	90	70-130	3
Dibenz(a,h)anthracene	ug/L (ppb)	5	86	90	70-130	5
Benzo(g,h,i)perylene	ug/L (ppb)	5	87	90	70-130	3

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probablility.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - The sample was diluted due to insufficient sample volume. Detection limits are raised due to dilution

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

fc – The compound is a common laboratory and field contaminant.

fp – Compounds in the sample matrix interfered with quantitation of the analyte. The reported concentration may be a false positive.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.

707306

SAMPLE CHAIN OF CUSTODY

ME 07/24/07

B05 / VS2

Send Report To Chuck Cacek
Company Adapt Engineering
Address 616 - 8th Avenue South
City, State, ZIP Seattle, WA 98104
Phone # 206-654-7045 Fax # 206-654-7048

SAMPLERS (signature) John Blenk

PROJECT NAME/NO. WA07-14230 PH2

PO #

REMARKS

TURNAROUND TIME
☒ Standard (2 Weeks)
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☒ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	PAHs by 8270						Notes
						ANALYSES REQUESTED												
P-20 : 6-8'	01 A-D	7-23-07	1020	Soil	4				X									Hold
P-20 : 10-12'	02 A-D		1030						X									
P-21 : 6-8'	03 A-D		1115						X									Hold
P-21 : 8-10'	04 A-D		1135						X									
P-22 : 4-6'	05 A-D		1310						X									Hold
P-22 : 8-10'	06 A-D		1330						X									
P-23 : 2-4'	07		1520		1	X						X						Hold
P-23 : 6-8'	08		1525		1	X						X						Hold
P-23 : 12-14	09		1540		1	X						X						Dx only
P-23 : GW	10 A-B		1630	GW	2	X						X						Dx only

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	John Blenk	John Blenk	Adapt	7-24-07	1625
Received by:	[signature]	Nhan Phan	FEBI	7/24/07	16:25
Relinquished by:					
Received by:		Samples received at 10 °C			

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707306

SAMPLE CHAIN OF CUSTODY

ME 07/24/07

BOS/VSZ

Page # 2 of 3

Send Report To Chuck Cacek

Company Adapt Engineering

Address 615 · 8th Avenue South

City, State, ZIP Seattle, WA 98104

Phone # 206-654-7045 Fax # 206-654-7048

SAMPLERS (signature) John Blum

PROJECT NAME/NO. ~~WA07-~~ ~~[illegible]~~ WA07-14230-PH2

PO #

REMARKS

TURNAROUND TIME
- [x] Standard (2 Weeks)
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Return samples
- [ ] Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	PAHs by 8270						Notes
P-24 : 2-4'	11	7-23-07	1650	Soil	1	X						X						Hold
P-24 : 6-8'	12	↓	1655	↓	1	X						X						Hold
P-24 : 12-14'	13	↓	1705	↓	1	X						~~X~~						Dx only
P-25 : 4-6'	14	7-24-07	0830	↓	1	X						~~X~~						~~Hold~~ Dx only
P-26 : 2-4'	15	↓	0900	↓	1	X						X						Hold
P-26 : 12-14'	16	↓	0925	↓	1	X						X						
P-26 : 14-16'	17	↓	0930	↓	1	X						X						Hold
P-26 : GW	18 A-B	↓	1000	GW	2	X						X						
P-27 : 2-4'	19	↓	1045	Soil	1	X						X						Hold
P-27 : 8-10'	20	↓	1055	↓	1	X						X						Hold

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: John Blum	John Blum	Adapt	7-24-07	16:25
Received by: Nhan Phan	Nhan Phan	FEBI	7/24/07	16:25
Relinquished by:				
Received by:		Samples received at 10 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

707306

SAMPLE CHAIN OF CUSTODY

ME 07/24/07

BOS/VS2/

Page # 3 of 3

Send Report To Chuck Cacek
Company Adapt Engineering
Address 615 - 8th Avenue South
City, State, ZIP Seattle, WA 98104
Phone # 206-654-7845 Fax # 206-654-7848

SAMPLERS (signature) John Bhan

PROJECT NAME/NO. 07-07-14230-PH2

PO #

REMARKS

TURNAROUND TIME
☒ Standard (2 Weeks)
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☒ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	PAHs by 8270					Notes
P-27; 12-14'	21	7-24-07	1105	Soil	1	X						X					Dx Only
P-27. GW	22 AB	↓	1145	GW	2	X						X					Dx only

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	John Bhan	John Bhan	Adapt	7-24-07	1625
Received by:	[signature]	Khan Phan	FedEx	7/24/07	16:25
Relinquished by:					
Received by:					

Samples received at 10 °C

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

August 30, 2007

Chuck Cacek, Project Manager
Adapt Engineering
615 8th Avenue South
Seattle, WA 98104

Dear Mr. Cacek:

Included are the results from the testing of material submitted on August 20, 2007 from the WA07-14230-PH2, F&BI 708266 project. There are 9 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: John Bhend
ADP0830R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/30/07
Date Received: 08/20/07
Project: WA07-14230-PH2, F&BI 708266
Date Extracted: 08/21/07
Date Analyzed: 08/21/07

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 51-132)
MW-1 708266-01	<50	<250	95
MW-4 708266-02	69 x, jr	<250	101
Method Blank	<50	<250	95

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	MW-5	Client:	Adapt Engineering
Date Received:	08/20/07	Project:	WA07-14230-PH2, F&BI 708266
Date Extracted:	08/24/07	Lab ID:	708266-03
Date Analyzed:	08/24/07	Data File:	082322.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	86	55	118
1,2-Dichloroethane-d4	83	53	121
Toluene-d8	85	55	121
4-Bromofluorobenzene	87	29	181

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	Tetrachloroethene	<1
Chloromethane	<1	Dibromochloromethane	<1
Vinyl chloride	<0.2 j	1,2-Dibromoethane (EDB)	<1
Bromomethane	<1	Chlorobenzene	<1
Chloroethane	<1	Ethylbenzene	<1
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<1
Acetone	<10	m,p-Xylene	<2
1,1-Dichloroethene	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	1.6	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<1
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1
1,3-Dichloropropane	<1		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	MW-6	Client:	Adapt Engineering
Date Received:	08/20/07	Project:	WA07-14230-PH2, F&BI 708266
Date Extracted:	08/24/07	Lab ID:	708266-04
Date Analyzed:	08/24/07	Data File:	082323.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	86	55	118
1,2-Dichloroethane-d4	84	53	121
Toluene-d8	85	55	121
4-Bromofluorobenzene	88	29	181

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	Tetrachloroethene	<1
Chloromethane	<1	Dibromochloromethane	<1
Vinyl chloride	<0.2 j	1,2-Dibromoethane (EDB)	<1
Bromomethane	<1	Chlorobenzene	<1
Chloroethane	<1	Ethylbenzene	<1
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<1
Acetone	<10	m,p-Xylene	<2
1,1-Dichloroethene	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<1
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1
1,3-Dichloropropane	<1		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	MW-7	Client:	Adapt Engineering
Date Received:	08/20/07	Project:	WA07-14230-PH2, F&BI 708266
Date Extracted:	08/24/07	Lab ID:	708266-05
Date Analyzed:	08/24/07	Data File:	082324.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	88	55	118
1,2-Dichloroethane-d4	83	53	121
Toluene-d8	85	55	121
4-Bromofluorobenzene	87	29	181

Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1
Chloromethane	<1
Vinyl chloride	<0.2 j
Bromomethane	<1
Chloroethane	<1
Trichlorofluoromethane	<1
Acetone	<10
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
2,2-Dichloropropane	<1
cis-1,2-Dichloroethene	<1
Chloroform	<1
2-Butanone (MEK)	<10
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
1,1-Dichloropropene	<1
Carbon Tetrachloride	<1
Benzene	<1
Trichloroethene	<1
1,2-Dichloropropane	<1
Bromodichloromethane	<1
Dibromomethane	<1
4-Methyl-2-pentanone	<10
cis-1,3-Dichloropropene	<1
Toluene	<1
trans-1,3-Dichloropropene	<1
1,1,2-Trichloroethane	<1
2-Hexanone	<10
1,3-Dichloropropane	<1

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<1
Dibromochloromethane	<1
1,2-Dibromoethane (EDB)	<1
Chlorobenzene	<1
Ethylbenzene	<1
1,1,1,2-Tetrachloroethane	<1
m,p-Xylene	<2
o-Xylene	<1
Styrene	<1
Isopropylbenzene	<1
Bromoform	<1
n-Propylbenzene	<1
Bromobenzene	<1
1,3,5-Trimethylbenzene	<1
1,1,2,2-Tetrachloroethane	<1
1,2,3-Trichloropropane	<1
2-Chlorotoluene	<1
4-Chlorotoluene	<1
tert-Butylbenzene	<1
1,2,4-Trimethylbenzene	<1
sec-Butylbenzene	<1
p-Isopropyltoluene	<1
1,3-Dichlorobenzene	<1
1,4-Dichlorobenzene	<1
1,2-Dichlorobenzene	<1
1,2-Dibromo-3-chloropropane	<1
1,2,4-Trichlorobenzene	<1
Hexachlorobutadiene	<1
Naphthalene	<1
1,2,3-Trichlorobenzene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	Method Blank	Client:	Adapt Engineering
Date Received:	Not Applicable	Project:	WA07-14230-PH2, F&BI 708266
Date Extracted:	08/23/07	Lab ID:	071276 mb
Date Analyzed:	08/24/07	Data File:	082320.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	83	55	118
1,2-Dichloroethane-d4	83	53	121
Toluene-d8	83	55	121
4-Bromofluorobenzene	86	29	181

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	Tetrachloroethene	<1
Chloromethane	<1	Dibromochloromethane	<1
Vinyl chloride	<0.2 j	1,2-Dibromoethane (EDB)	<1
Bromomethane	<1	Chlorobenzene	<1
Chloroethane	<1	Ethylbenzene	<1
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<1
Acetone	<10	m,p-Xylene	<2
1,1-Dichloroethene	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<1
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1
1,3-Dichloropropane	<1		

Date of Report: 08/30/07
Date Received: 08/20/07
Project: WA07-14230-PH2, F&BI 708266

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: 708271-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	<1	<1	nm
Chloromethane	ug/L (ppb)	<1	<1	nm
Vinyl chloride	ug/L (ppb)	<0.2	<0.2	nm
Bromomethane	ug/L (ppb)	<1	<1	nm
Chloroethane	ug/L (ppb)	<1	<1	nm
Trichlorofluoromethane	ug/L (ppb)	<1	<1	nm
Acetone	ug/L (ppb)	27	31	14
1,1-Dichloroethene	ug/L (ppb)	<1	<1	nm
Methylene chloride	ug/L (ppb)	<5	<5	nm
trans-1,2-Dichloroethene	ug/L (ppb)	<1	<1	nm
1,1-Dichloroethane	ug/L (ppb)	<1	<1	nm
2,2-Dichloropropane	ug/L (ppb)	<1	<1	nm
cis-1,2-Dichloroethene	ug/L (ppb)	<1	<1	nm
Chloroform	ug/L (ppb)	<1	<1	nm
2-Butanone (MEK)	ug/L (ppb)	<10	<10	nm
1,2-Dichloroethane (EDC)	ug/L (ppb)	<1	<1	nm
1,1,1-Trichloroethane	ug/L (ppb)	<1	<1	nm
1,1-Dichloropropene	ug/L (ppb)	<1	<1	nm
Carbon Tetrachloride	ug/L (ppb)	<1	<1	nm
Benzene	ug/L (ppb)	<1	<1	nm
Trichloroethene	ug/L (ppb)	<1	<1	nm
1,2-Dichloropropane	ug/L (ppb)	<1	<1	nm
Bromodichloromethane	ug/L (ppb)	<1	<1	nm
Dibromomethane	ug/L (ppb)	<1	<1	nm
4-Methyl-2-pentanone	ug/L (ppb)	<10	<10	nm
cis-1,3-Dichloropropene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
trans-1,3-Dichloropropene	ug/L (ppb)	<1	<1	nm
1,1,2-Trichloroethane	ug/L (ppb)	<1	<1	nm
2-Hexanone	ug/L (ppb)	<10	<10	nm
1,3-Dichloropropane	ug/L (ppb)	<1	<1	nm
Tetrachloroethene	ug/L (ppb)	<1	<1	nm
Dibromochloromethane	ug/L (ppb)	<1	<1	nm
1,2-Dibromoethane (EDB)	ug/L (ppb)	<1	<1	nm
Chlorobenzene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
1,1,1,2-Tetrachloroethane	ug/L (ppb)	<1	<1	nm
m,p-Xylene	ug/L (ppb)	<2	<2	nm
o-Xylene	ug/L (ppb)	<1	<1	nm
Styrene	ug/L (ppb)	<1	<1	nm
Isopropylbenzene	ug/L (ppb)	<1	<1	nm
Bromoform	ug/L (ppb)	<1	<1	nm
n-Propylbenzene	ug/L (ppb)	<1	<1	nm
Bromobenzene	ug/L (ppb)	<1	<1	nm
1,3,5-Trimethylbenzene	ug/L (ppb)	<1	<1	nm
1,1,2,2-Tetrachloroethane	ug/L (ppb)	<1	<1	nm
1,2,3-Trichloropropane	ug/L (ppb)	<1	<1	nm
2-Chlorotoluene	ug/L (ppb)	<1	<1	nm
4-Chlorotoluene	ug/L (ppb)	<1	<1	nm
tert-Butylbenzene	ug/L (ppb)	<1	<1	nm
1,2,4-Trimethylbenzene	ug/L (ppb)	<1	<1	nm
sec-Butylbenzene	ug/L (ppb)	<1	<1	nm
p-Isopropyltoluene	ug/L (ppb)	<1	<1	nm
1,3-Dichlorobenzene	ug/L (ppb)	<1	<1	nm
1,4-Dichlorobenzene	ug/L (ppb)	<1	<1	nm
1,2-Dichlorobenzene	ug/L (ppb)	<1	<1	nm
1,2-Dibromo-3-chloropropane	ug/L (ppb)	<1	<1	nm
1,2,4-Trichlorobenzene	ug/L (ppb)	<1	<1	nm
Hexachlorobutadiene	ug/L (ppb)	<1	<1	nm
Naphthalene	ug/L (ppb)	<1	<1	nm
1,2,3-Trichlorobenzene	ug/L (ppb)	<1	<1	nm

Date of Report: 08/30/07
Date Received: 08/20/07
Project: WA07-14230-PH2, F&BI 708266

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	50	105	108	50-136	3
Chloromethane	ug/L (ppb)	50	92	103	55-134	11
Vinyl chloride	ug/L (ppb)	50	98	101	56-144	3
Bromomethane	ug/L (ppb)	50	96	99	58-140	3
Chloroethane	ug/L (ppb)	50	101	105	55-144	4
Trichlorofluoromethane	ug/L (ppb)	50	108	114	54-142	5
Acetone	ug/L (ppb)	50	99	98	52-162	1
1,1-Dichloroethene	ug/L (ppb)	50	94	95	34-135	1
Methylene chloride	ug/L (ppb)	50	97	100	65-112	3
trans-1,2-Dichloroethene	ug/L (ppb)	50	89	95	66-120	7
1,1-Dichloroethane	ug/L (ppb)	50	98	101	65-119	3
2,2-Dichloropropane	ug/L (ppb)	50	88	94	42-143	7
cis-1,2-Dichloroethene	ug/L (ppb)	50	87	93	75-121	7
Chloroform	ug/L (ppb)	50	99	103	63-117	4
2-Butanone (MEK)	ug/L (ppb)	50	97	102	77-125	5
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	100	104	67-116	4
1,1,1-Trichloroethane	ug/L (ppb)	50	102	104	63-124	2
1,1-Dichloropropene	ug/L (ppb)	50	89	94	62-122	5
Carbon Tetrachloride	ug/L (ppb)	50	100	103	63-126	3
Benzene	ug/L (ppb)	50	93	96	55-134	3
Trichloroethene	ug/L (ppb)	50	97	101	75-116	4
1,2-Dichloropropane	ug/L (ppb)	50	96	99	75-118	3
Bromodichloromethane	ug/L (ppb)	50	99	103	69-129	4
Dibromomethane	ug/L (ppb)	50	102	105	68-117	3
4-Methyl-2-pentanone	ug/L (ppb)	50	87	92	68-124	6
cis-1,3-Dichloropropene	ug/L (ppb)	50	96	99	64-123	3
Toluene	ug/L (ppb)	50	94	98	56-140	4
trans-1,3-Dichloropropene	ug/L (ppb)	50	96	100	71-124	4
1,1,2-Trichloroethane	ug/L (ppb)	50	95	99	66-123	4
2-Hexanone	ug/L (ppb)	50	95	101	66-128	6
1,3-Dichloropropane	ug/L (ppb)	50	96	99	71-125	3
Tetrachloroethene	ug/L (ppb)	50	98	101	78-116	3
Dibromochloromethane	ug/L (ppb)	50	100	103	75-122	3
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	96	101	72-124	5
Chlorobenzene	ug/L (ppb)	50	97	100	72-116	3
Ethylbenzene	ug/L (ppb)	50	97	100	76-123	3
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	97	101	69-121	4
m,p-Xylene	ug/L (ppb)	100	97	99	49-166	2
o-Xylene	ug/L (ppb)	50	96	98	68-121	2
Styrene	ug/L (ppb)	50	96	99	72-119	3
Isopropylbenzene	ug/L (ppb)	50	97	100	66-121	3
Bromoform	ug/L (ppb)	50	98	100	70-127	2
n-Propylbenzene	ug/L (ppb)	50	95	96	67-118	1
Bromobenzene	ug/L (ppb)	50	95	97	71-124	2
1,3,5-Trimethylbenzene	ug/L (ppb)	50	94	96	69-116	2
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	92	94	57-128	2
1,2,3-Trichloropropane	ug/L (ppb)	50	92	95	58-126	3
2-Chlorotoluene	ug/L (ppb)	50	95	97	66-116	2
4-Chlorotoluene	ug/L (ppb)	50	95	98	67-117	3
tert-Butylbenzene	ug/L (ppb)	50	97	99	65-121	2
1,2,4-Trimethylbenzene	ug/L (ppb)	50	88	89	69-123	1
sec-Butylbenzene	ug/L (ppb)	50	96	97	70-118	1
p-Isopropyltoluene	ug/L (ppb)	50	97	98	72-120	1
1,3-Dichlorobenzene	ug/L (ppb)	50	96	97	76-114	1
1,4-Dichlorobenzene	ug/L (ppb)	50	96	97	72-113	1
1,2-Dichlorobenzene	ug/L (ppb)	50	95	96	76-115	1
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	98	102	54-131	4
1,2,4-Trichlorobenzene	ug/L (ppb)	50	102	105	72-123	3
Hexachlorobutadiene	ug/L (ppb)	50	99	99	80-111	0
Naphthalene	ug/L (ppb)	50	95	99	61-137	4
1,2,3-Trichlorobenzene	ug/L (ppb)	50	96	101	74-126	5

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probablility.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - The sample was diluted due to insufficient sample volume. Detection limits are raised due to dilution

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

fc – The compound is a common laboratory and field contaminant.

fp – Compounds in the sample matrix interfered with quantitation of the analyte. The reported concentration may be a false positive.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.

708266

SAMPLE CHAIN OF CUSTODY

ME 08/20/07

V2 | D03

Page # 1 of 1

Send Report To: Chuck Carek
Company: Adapt Engineering, Inc.
Address: 615 - 8th Avenue South
City, State, ZIP: Seattle, WA 98104
Phone # 206-654-7045 Fax # 206-654-7048

SAMPLERS (signature): John Bhend

PROJECT NAME/NO.: WA07-14230-PH2

PO #:

REMARKS:

TURNAROUND TIME
- [x] Standard (2 Weeks)
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Return samples
- [ ] Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	Notes
MW-1	01	8-20-07	1330	GW	1	X						
MW-4	02	↓	1355	↓	1	X						
MW-5	03A-D		1220		4				X			
MW-6	04 A-D		1245		4				X			
MW-7	05 A-D	↓	1305	↓	4				X			

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: John Bhend	John Bhend	Adapt	8-20-07	1500
Received by: Nhan Phan	Nhan Phan	FedEx	8-20-07	15:00
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

Samples received at 9 °C

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

January 24, 2008

John Bhend, Project Manager
Adapt Engineering
615 8th Avenue South
Seattle, WA 98104

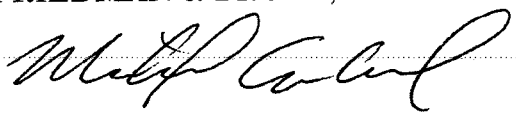
Dear Mr. Bhend:

Included are the results from the testing of material submitted on January 17, 2008 from the WA06-14230-PH2, F&BI 801177 project. There are 10 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
ADP0124R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on January 17, 2008 by Friedman & Bruya, Inc. from the Adapt Engineering WA06-14230-PH2, F&BI 801177 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Adapt Engineering
801177-01	MW-1
801177-02	MW-4
801177-03	MW-5
801177-04	MW-6
801177-05	MW-7

All quality control requirements were acceptable.

Date of Report: 01/24/08
Date Received: 01/17/08
Project: WA06-14230-PH2, F&BI 801177
Date Extracted: 01/21/08
Date Analyzed: 01/22/08

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 51-132)
MW-1 801177-01	<50	<250	80
MW-4 801177-02	<50	<250	80
Method Blank	<50	<250	78

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	MW-5	Client:	Adapt Engineering
Date Received:	01/17/08	Project:	WA06-14230-PH2, F&BI 801177
Date Extracted:	01/18/08	Lab ID:	801177-03
Date Analyzed:	01/18/08	Data File:	011807.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	74	55	118
1,2-Dichloroethane-d4	75	53	121
Toluene-d8	74	55	121
4-Bromofluorobenzene	92	29	181

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<1	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<1
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	MW-6	Client:	Adapt Engineering
Date Received:	01/17/08	Project:	WA06-14230-PH2, F&BI 801177
Date Extracted:	01/18/08	Lab ID:	801177-04
Date Analyzed:	01/18/08	Data File:	011809.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	77	55	118
1,2-Dichloroethane-d4	77	53	121
Toluene-d8	75	55	121
4-Bromofluorobenzene	88	29	181

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<1	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<1
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	MW-7	Client:	Adapt Engineering
Date Received:	01/17/08	Project:	WA06-14230-PH2, F&BI 801177
Date Extracted:	01/18/08	Lab ID:	801177-05
Date Analyzed:	01/18/08	Data File:	011810.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	78	55	118
1,2-Dichloroethane-d4	77	53	121
Toluene-d8	75	55	121
4-Bromofluorobenzene	89	29	181

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<1	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<1
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	Method Blank	Client:	Adapt Engineering
Date Received:	Not Applicable	Project:	WA06-14230-PH2, F&BI 801177
Date Extracted:	01/18/08	Lab ID:	080079 mb
Date Analyzed:	01/18/08	Data File:	011806.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	73	55	118
1,2-Dichloroethane-d4	72	53	121
Toluene-d8	70	55	121
4-Bromofluorobenzene	82	29	181

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<1	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<1
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

Date of Report: 01/24/08
Date Received: 01/17/08
Project: WA06-14230-PH2, F&BI 801177

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	86	88	67-141	2

Date of Report: 01/24/08
Date Received: 01/17/08
Project: WA06-14230-PH2, F&BI 801177

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: 801177-03 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	<1	<1	nm
Chloromethane	ug/L (ppb)	<1	<1	nm
Vinyl chloride	ug/L (ppb)	<0.2	<0.2	nm
Bromomethane	ug/L (ppb)	<1	<1	nm
Chloroethane	ug/L (ppb)	<1	<1	nm
Trichlorofluoromethane	ug/L (ppb)	<1	<1	nm
Acetone	ug/L (ppb)	<10	<10	nm
1,1-Dichloroethene	ug/L (ppb)	<1	<1	nm
Methylene chloride	ug/L (ppb)	<5	<5	nm
Methyl t-butyl ether (MTBE)	ug/L (ppb)	<1	<1	nm
trans-1,2-Dichloroethene	ug/L (ppb)	<1	<1	nm
1,1-Dichloroethane	ug/L (ppb)	<1	<1	nm
2,2-Dichloropropane	ug/L (ppb)	<1	<1	nm
cis-1,2-Dichloroethene	ug/L (ppb)	<1	<1	nm
Chloroform	ug/L (ppb)	<1	<1	nm
2-Butanone (MEK)	ug/L (ppb)	<10	<10	nm
1,2-Dichloroethane (EDC)	ug/L (ppb)	<1	<1	nm
1,1,1-Trichloroethane	ug/L (ppb)	<1	<1	nm
1,1-Dichloropropene	ug/L (ppb)	<1	<1	nm
Carbon Tetrachloride	ug/L (ppb)	<1	<1	nm
Benzene	ug/L (ppb)	<1	<1	nm
Trichloroethene	ug/L (ppb)	<1	1.0	nm
1,2-Dichloropropane	ug/L (ppb)	<1	<1	nm
Bromodichloromethane	ug/L (ppb)	<1	<1	nm
Dibromomethane	ug/L (ppb)	<1	<1	nm
4-Methyl-2-pentanone	ug/L (ppb)	<10	<10	nm
cis-1,3-Dichloropropene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
trans-1,3-Dichloropropene	ug/L (ppb)	<1	<1	nm
1,1,2-Trichloroethane	ug/L (ppb)	<1	<1	nm
2-Hexanone	ug/L (ppb)	<10	<10	nm
1,3-Dichloropropane	ug/L (ppb)	<1	<1	nm
Tetrachloroethene	ug/L (ppb)	<1	<1	nm
Dibromochloromethane	ug/L (ppb)	<1	<1	nm
1,2-Dibromoethane (EDB)	ug/L (ppb)	<1	<1	nm
Chlorobenzene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
1,1,1,2-Tetrachloroethane	ug/L (ppb)	<1	<1	nm
m,p-Xylene	ug/L (ppb)	<2	<2	nm
o-Xylene	ug/L (ppb)	<1	<1	nm
Styrene	ug/L (ppb)	<1	<1	nm
Isopropylbenzene	ug/L (ppb)	<1	<1	nm
Bromoform	ug/L (ppb)	<1	<1	nm
n-Propylbenzene	ug/L (ppb)	<1	<1	nm
Bromobenzene	ug/L (ppb)	<1	<1	nm
1,3,5-Trimethylbenzene	ug/L (ppb)	<1	<1	nm
1,1,2,2-Tetrachloroethane	ug/L (ppb)	<1	<1	nm
1,2,3-Trichloropropane	ug/L (ppb)	<1	<1	nm
2-Chlorotoluene	ug/L (ppb)	<1	<1	nm
4-Chlorotoluene	ug/L (ppb)	<1	<1	nm
tert-Butylbenzene	ug/L (ppb)	<1	<1	nm
1,2,4-Trimethylbenzene	ug/L (ppb)	<1	<1	nm
sec-Butylbenzene	ug/L (ppb)	<1	<1	nm
p-Isopropyltoluene	ug/L (ppb)	<1	<1	nm
1,3-Dichlorobenzene	ug/L (ppb)	<1	<1	nm
1,4-Dichlorobenzene	ug/L (ppb)	<1	<1	nm
1,2-Dichlorobenzene	ug/L (ppb)	<1	<1	nm
1,2-Dibromo-3-chloropropane	ug/L (ppb)	<1	<1	nm
1,2,4-Trichlorobenzene	ug/L (ppb)	<1	<1	nm
Hexachlorobutadiene	ug/L (ppb)	<1	<1	nm
Naphthalene	ug/L (ppb)	<1	<1	nm
1,2,3-Trichlorobenzene	ug/L (ppb)	<1	<1	nm

Date of Report: 01/24/08
Date Received: 01/17/08
Project: WA06-14230-PH2, F&BI 801177

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	50	61	62	50-136	2
Chloromethane	ug/L (ppb)	50	66	75	55-134	13
Vinyl chloride	ug/L (ppb)	50	76	92	56-144	19
Bromomethane	ug/L (ppb)	50	74	96	58-140	26 vo
Chloroethane	ug/L (ppb)	50	76	99	55-144	26 vo
Trichlorofluoromethane	ug/L (ppb)	50	99	115	54-142	15
Acetone	ug/L (ppb)	50	112	106	52-162	6
1,1-Dichloroethene	ug/L (ppb)	50	75	90	34-135	18
Methylene chloride	ug/L (ppb)	50	66	83	65-112	23 vo
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	83	97	71-119	16
trans-1,2-Dichloroethene	ug/L (ppb)	50	88	92	66-120	4
1,1-Dichloroethane	ug/L (ppb)	50	94	93	65-119	1
2,2-Dichloropropane	ug/L (ppb)	50	90	102	42-143	12
cis-1,2-Dichloroethene	ug/L (ppb)	50	89	92	75-121	3
Chloroform	ug/L (ppb)	50	93	94	63-117	1
2-Butanone (MEK)	ug/L (ppb)	50	102	97	77-125	5
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	94	96	67-116	2
1,1,1-Trichloroethane	ug/L (ppb)	50	86	99	63-124	14
1,1-Dichloropropene	ug/L (ppb)	50	97	93	62-122	4
Carbon Tetrachloride	ug/L (ppb)	50	88	98	63-126	11
Benzene	ug/L (ppb)	50	89	90	55-134	1
Trichloroethene	ug/L (ppb)	50	91	91	75-116	0
1,2-Dichloropropane	ug/L (ppb)	50	91	93	75-118	2
Bromodichloromethane	ug/L (ppb)	50	91	97	69-129	6
Dibromomethane	ug/L (ppb)	50	86	93	68-117	8
4-Methyl-2-pentanone	ug/L (ppb)	50	84	90	68-124	7
cis-1,3-Dichloropropene	ug/L (ppb)	50	93	96	64-123	3
Toluene	ug/L (ppb)	50	110	100	56-140	10
trans-1,3-Dichloropropene	ug/L (ppb)	50	116	107	71-124	8
1,1,2-Trichloroethane	ug/L (ppb)	50	104	96	66-123	8
2-Hexanone	ug/L (ppb)	50	121	107	66-128	12
1,3-Dichloropropane	ug/L (ppb)	50	105	98	71-125	7
Tetrachloroethene	ug/L (ppb)	50	108	99	78-116	9
Dibromochloromethane	ug/L (ppb)	50	106	106	75-122	0
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	102	101	72-124	1
Chlorobenzene	ug/L (ppb)	50	101	101	72-116	0
Ethylbenzene	ug/L (ppb)	50	104	101	76-123	3
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	96	102	69-121	6
m,p-Xylene	ug/L (ppb)	100	101	98	49-166	3
o-Xylene	ug/L (ppb)	50	100	102	68-121	2
Styrene	ug/L (ppb)	50	100	102	72-119	2
Isopropylbenzene	ug/L (ppb)	50	100	104	66-121	4
Bromoform	ug/L (ppb)	50	99	106	70-127	7
n-Propylbenzene	ug/L (ppb)	50	113	105	67-118	7
Bromobenzene	ug/L (ppb)	50	104	100	71-124	4
1,3,5-Trimethylbenzene	ug/L (ppb)	50	107	104	69-116	3
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	102	100	57-128	2
1,2,3-Trichloropropane	ug/L (ppb)	50	104	100	58-126	4
2-Chlorotoluene	ug/L (ppb)	50	107	105	66-116	2
4-Chlorotoluene	ug/L (ppb)	50	109	105	67-117	4
tert-Butylbenzene	ug/L (ppb)	50	105	101	65-121	4
1,2,4-Trimethylbenzene	ug/L (ppb)	50	107	103	69-123	4
sec-Butylbenzene	ug/L (ppb)	50	107	103	70-118	4
p-Isopropyltoluene	ug/L (ppb)	50	109	105	72-120	4
1,3-Dichlorobenzene	ug/L (ppb)	50	104	104	76-114	0
1,4-Dichlorobenzene	ug/L (ppb)	50	100	101	72-113	1
1,2-Dichlorobenzene	ug/L (ppb)	50	101	102	76-115	1
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	103	104	54-131	1
1,2,4-Trichlorobenzene	ug/L (ppb)	50	108	102	72-123	6
Hexachlorobutadiene	ug/L (ppb)	50	109	93	80-111	16
Naphthalene	ug/L (ppb)	50	104	99	61-137	5
1,2,3-Trichlorobenzene	ug/L (ppb)	50	110	102	74-126	8

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probablility.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.

801177

SAMPLE CHAIN OF CUSTODY

ME 01-17-08 V2/B03

Page # 1 of 1

Send Report To John Bhend
Company Adapt
Address 615 8th Ave. S.
City, State, ZIP Seattle WA
Phone # 206-654-7045 Fax # 206-654-7048

SAMPLERS (signature)
PROJECT NAME/NO. WA06-14230-PH2
PO #
REMARKS per JB 1/24/08 mj

TURNAROUND TIME
☑ Standard (2 Weeks)
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel (Ext)	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS							Notes
MW-1	01	1/17/07	1345	GW	1	X												TPH-Diesel Extended
MW-4	02		1400		1	X												
MW-5	03 A-C		1315		3				X									
MW-6	04 A-C		1230		3				X									
MW-7	05 A-C	✓	1200	✓	3				X									

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Brent Laws	Adapt	1/17/08	1545
Received by:	Nhan Phan	FEBI	1/17/08	
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044
FORMS\COC\COC.DOC

Samples received at 3 °C

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

April 2, 2008

John Bhend, Project Manager
Adapt Engineering
615 8th Avenue South
Seattle, WA 98104

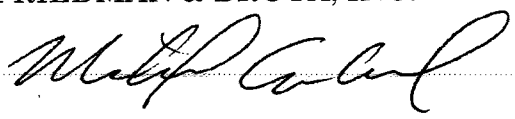
Dear Mr. Bhend:

Included are the results from the testing of material submitted on March 24, 2008 from the WA06-14230-PH2, F&BI 803238 project. There are 10 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
ADP0402R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 24, 2008 by Friedman & Bruya, Inc. from the Adapt Engineering WA06-14230-PH2, F&BI 803238 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Adapt Engineering
803238-01	MW-1
803238-02	MW-4
803238-03	MW-5
803238-04	MW-6
803238-05	MW-7

All quality control requirements were acceptable.

Date of Report: 04/02/08
Date Received: 03/24/08
Project: WA06-14230-PH2, F&BI 803238
Date Extracted: 03/26/08
Date Analyzed: 03/27/08

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
MW-1 803238-01	<50	<250	70
MW-4 803238-02	<50	<250	78
Method Blank	<50	<250	69

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	MW-5	Client:	Adapt Engineering
Date Received:	03/24/08	Project:	WA06-14230-PH2, F&BI 803238
Date Extracted:	03/31/08	Lab ID:	803238-03
Date Analyzed:	03/31/08	Data File:	033118.D
Matrix:	Water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	101	69	124
1,2-Dichloroethane-d4	96	67	131
Toluene-d8	111	73	132
4-Bromofluorobenzene	128	81	146

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	Tetrachloroethene	<1
Chloromethane	<1	Dibromochloromethane	<1
Vinyl chloride	<0.2	1,2-Dibromoethane (EDB)	<1
Bromomethane	<1	Chlorobenzene	<1
Chloroethane	<1	Ethylbenzene	<1
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<1
Acetone	<10	m,p-Xylene	<2
1,1-Dichloroethene	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<1
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1
1,3-Dichloropropane	<1		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	MW-6	Client:	Adapt Engineering
Date Received:	03/24/08	Project:	WA06-14230-PH2, F&BI 803238
Date Extracted:	03/31/08	Lab ID:	803238-04
Date Analyzed:	04/01/08	Data File:	033119.D
Matrix:	Water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	96	69	124
1,2-Dichloroethane-d4	93	67	131
Toluene-d8	106	73	132
4-Bromofluorobenzene	121	81	146

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	Tetrachloroethene	<1
Chloromethane	<1	Dibromochloromethane	<1
Vinyl chloride	<0.2	1,2-Dibromoethane (EDB)	<1
Bromomethane	<1	Chlorobenzene	<1
Chloroethane	<1	Ethylbenzene	<1
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<1
Acetone	<10	m,p-Xylene	<2
1,1-Dichloroethene	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<1
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1
1,3-Dichloropropane	<1		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	MW-7	Client:	Adapt Engineering
Date Received:	03/24/08	Project:	WA06-14230-PH2, F&BI 803238
Date Extracted:	03/31/08	Lab ID:	803238-05
Date Analyzed:	04/01/08	Data File:	033120.D
Matrix:	Water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	101	69	124
1,2-Dichloroethane-d4	98	67	131
Toluene-d8	112	73	132
4-Bromofluorobenzene	129	81	146

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	Tetrachloroethene	<1
Chloromethane	<1	Dibromochloromethane	<1
Vinyl chloride	<0.2	1,2-Dibromoethane (EDB)	<1
Bromomethane	<1	Chlorobenzene	<1
Chloroethane	<1	Ethylbenzene	<1
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<1
Acetone	<10	m,p-Xylene	<2
1,1-Dichloroethene	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<1
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1
1,3-Dichloropropane	<1		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	Method Blank	Client:	Adapt Engineering
Date Received:	NA	Project:	WA06-14230-PH2, F&BI 803238
Date Extracted:	03/31/08	Lab ID:	080489 mb
Date Analyzed:	03/31/08	Data File:	033117.D
Matrix:	Water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	95	69	124
1,2-Dichloroethane-d4	92	67	131
Toluene-d8	106	73	132
4-Bromofluorobenzene	122	81	146

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	Tetrachloroethene	<1
Chloromethane	<1	Dibromochloromethane	<1
Vinyl chloride	<0.2	1,2-Dibromoethane (EDB)	<1
Bromomethane	<1	Chlorobenzene	<1
Chloroethane	<1	Ethylbenzene	<1
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<1
Acetone	<10	m,p-Xylene	<2
1,1-Dichloroethene	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<1
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1
1,3-Dichloropropane	<1		

Date of Report: 04/02/08
Date Received: 03/24/08
Project: WA06-14230-PH2, F&BI 803238

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: 803327-02 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	<1	<1	nm
Chloromethane	ug/L (ppb)	<1	<1	nm
Vinyl chloride	ug/L (ppb)	<0.2	<0.2	nm
Bromomethane	ug/L (ppb)	<1	<1	nm
Chloroethane	ug/L (ppb)	<1	<1	nm
Trichlorofluoromethane	ug/L (ppb)	<1	<1	nm
Acetone	ug/L (ppb)	<10	<10	nm
1,1-Dichloroethene	ug/L (ppb)	<1	<1	nm
Methylene chloride	ug/L (ppb)	<5	<5	nm
trans-1,2-Dichloroethene	ug/L (ppb)	<1	<1	nm
1,1-Dichloroethane	ug/L (ppb)	<1	<1	nm
2,2-Dichloropropane	ug/L (ppb)	<1	<1	nm
cis-1,2-Dichloroethene	ug/L (ppb)	<1	<1	nm
Chloroform	ug/L (ppb)	<1	<1	nm
2-Butanone (MEK)	ug/L (ppb)	<10	<10	nm
1,2-Dichloroethane (EDC)	ug/L (ppb)	<1	<1	nm
1,1,1-Trichloroethane	ug/L (ppb)	<1	<1	nm
1,1-Dichloropropene	ug/L (ppb)	<1	<1	nm
Carbon Tetrachloride	ug/L (ppb)	<1	<1	nm
Benzene	ug/L (ppb)	<1	<1	nm
Trichloroethene	ug/L (ppb)	<1	<1	nm
1,2-Dichloropropane	ug/L (ppb)	<1	<1	nm
Bromodichloromethane	ug/L (ppb)	<1	<1	nm
Dibromomethane	ug/L (ppb)	<1	<1	nm
4-Methyl-2-pentanone	ug/L (ppb)	<10	<10	nm
cis-1,3-Dichloropropene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
trans-1,3-Dichloropropene	ug/L (ppb)	<1	<1	nm
1,1,2-Trichloroethane	ug/L (ppb)	<1	<1	nm
2-Hexanone	ug/L (ppb)	<10	<10	nm
1,3-Dichloropropane	ug/L (ppb)	<1	<1	nm
Tetrachloroethene	ug/L (ppb)	<1	<1	nm
Dibromochloromethane	ug/L (ppb)	<1	<1	nm
1,2-Dibromoethane (EDB)	ug/L (ppb)	<1	<1	nm
Chlorobenzene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
1,1,1,2-Tetrachloroethane	ug/L (ppb)	<1	<1	nm
m,p-Xylene	ug/L (ppb)	<2	<2	nm
o-Xylene	ug/L (ppb)	<1	<1	nm
Styrene	ug/L (ppb)	<1	<1	nm
Isopropylbenzene	ug/L (ppb)	<1	<1	nm
Bromoform	ug/L (ppb)	<1	<1	nm
n-Propylbenzene	ug/L (ppb)	<1	<1	nm
Bromobenzene	ug/L (ppb)	<1	<1	nm
1,3,5-Trimethylbenzene	ug/L (ppb)	<1	<1	nm
1,1,2,2-Tetrachloroethane	ug/L (ppb)	<1	<1	nm
1,2,3-Trichloropropane	ug/L (ppb)	<1	<1	nm
2-Chlorotoluene	ug/L (ppb)	<1	<1	nm
4-Chlorotoluene	ug/L (ppb)	<1	<1	nm
tert-Butylbenzene	ug/L (ppb)	<1	<1	nm
1,2,4-Trimethylbenzene	ug/L (ppb)	<1	<1	nm
sec-Butylbenzene	ug/L (ppb)	<1	<1	nm
p-Isopropyltoluene	ug/L (ppb)	<1	<1	nm
1,3-Dichlorobenzene	ug/L (ppb)	<1	<1	nm
1,4-Dichlorobenzene	ug/L (ppb)	<1	<1	nm
1,2-Dichlorobenzene	ug/L (ppb)	<1	<1	nm
1,2-Dibromo-3-chloropropane	ug/L (ppb)	<1	<1	nm
1,2,4-Trichlorobenzene	ug/L (ppb)	<1	<1	nm
Hexachlorobutadiene	ug/L (ppb)	<1	<1	nm
Naphthalene	ug/L (ppb)	<1	<1	nm
1,2,3-Trichlorobenzene	ug/L (ppb)	<1	<1	nm

Date of Report: 04/02/08
Date Received: 03/24/08
Project: WA06-14230-PH2, F&BI 803238

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	50	92	98	22-164	6
Chloromethane	ug/L (ppb)	50	99	100	43-147	1
Vinyl chloride	ug/L (ppb)	50	103	102	48-142	1
Bromomethane	ug/L (ppb)	50	105	108	37-160	3
Chloroethane	ug/L (ppb)	50	100	105	28-161	5
Trichlorofluoromethane	ug/L (ppb)	50	106	103	52-143	3
Acetone	ug/L (ppb)	50	98	79	21-187	21 vo
1,1-Dichloroethene	ug/L (ppb)	50	103	102	61-127	1
Methylene chloride	ug/L (ppb)	50	96	95	56-136	1
trans-1,2-Dichloroethene	ug/L (ppb)	50	105	103	78-118	2
1,1-Dichloroethane	ug/L (ppb)	50	100	100	78-117	0
2,2-Dichloropropane	ug/L (ppb)	50	106	107	62-139	1
cis-1,2-Dichloroethene	ug/L (ppb)	50	102	101	81-118	1
Chloroform	ug/L (ppb)	50	100	100	78-120	0
2-Butanone (MEK)	ug/L (ppb)	50	111	118	53-159	6
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	99	100	74-128	1
1,1,1-Trichloroethane	ug/L (ppb)	50	105	106	70-135	1
1,1-Dichloropropene	ug/L (ppb)	50	101	102	83-120	1
Carbon Tetrachloride	ug/L (ppb)	50	115	119	65-140	3
Benzene	ug/L (ppb)	50	100	101	79-115	1
Trichloroethene	ug/L (ppb)	50	100	102	80-114	2
1,2-Dichloropropane	ug/L (ppb)	50	100	100	80-117	0
Bromodichloromethane	ug/L (ppb)	50	110	110	79-127	0
Dibromomethane	ug/L (ppb)	50	106	104	85-116	2
4-Methyl-2-pentanone	ug/L (ppb)	50	96	97	57-163	1
cis-1,3-Dichloropropene	ug/L (ppb)	50	107	107	85-121	0
Toluene	ug/L (ppb)	50	100	100	82-116	0
trans-1,3-Dichloropropene	ug/L (ppb)	50	111	111	83-125	0
1,1,2-Trichloroethane	ug/L (ppb)	50	98	97	81-114	1
2-Hexanone	ug/L (ppb)	50	100	99	60-167	1
1,3-Dichloropropane	ug/L (ppb)	50	99	99	81-115	0
Tetrachloroethene	ug/L (ppb)	50	100	101	83-115	1
Dibromochloromethane	ug/L (ppb)	50	97	97	77-128	0
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	103	102	81-117	1
Chlorobenzene	ug/L (ppb)	50	98	99	80-109	1
Ethylbenzene	ug/L (ppb)	50	99	100	82-113	1
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	115	116	74-126	1
m,p-Xylene	ug/L (ppb)	100	99	99	82-115	0
o-Xylene	ug/L (ppb)	50	100	101	83-116	1
Styrene	ug/L (ppb)	50	100	102	85-116	2
Isopropylbenzene	ug/L (ppb)	50	100	100	83-120	0
Bromoform	ug/L (ppb)	50	96	97	77-119	1
n-Propylbenzene	ug/L (ppb)	50	102	102	77-122	0
Bromobenzene	ug/L (ppb)	50	99	99	80-112	0
1,3,5-Trimethylbenzene	ug/L (ppb)	50	101	101	80-119	0
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	97	97	72-115	0
1,2,3-Trichloropropane	ug/L (ppb)	50	94	93	77-114	1
2-Chlorotoluene	ug/L (ppb)	50	100	100	76-116	0
4-Chlorotoluene	ug/L (ppb)	50	100	100	78-116	0
tert-Butylbenzene	ug/L (ppb)	50	99	100	77-121	1
1,2,4-Trimethylbenzene	ug/L (ppb)	50	100	101	80-120	1
sec-Butylbenzene	ug/L (ppb)	50	102	102	77-122	0
p-Isopropyltoluene	ug/L (ppb)	50	104	104	84-119	0
1,3-Dichlorobenzene	ug/L (ppb)	50	100	100	78-114	0
1,4-Dichlorobenzene	ug/L (ppb)	50	99	100	79-110	1
1,2-Dichlorobenzene	ug/L (ppb)	50	99	99	80-114	0
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	97	96	84-125	1
1,2,4-Trichlorobenzene	ug/L (ppb)	50	111	110	76-113	1
Hexachlorobutadiene	ug/L (ppb)	50	108	109	65-129	1
Naphthalene	ug/L (ppb)	50	113	112	68-114	1
1,2,3-Trichlorobenzene	ug/L (ppb)	50	115	116	74-124	1

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probablility.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.

803238

SAMPLE CHAIN OF CUSTODY

ME 03-24-08 V3/B04

Send Report To
Company Adapt: John Bhend
Address Adapt
City, State, ZIP 615 8th Ave S.
Phone # 206-654-7045 Fax # 206-654-7048

SAMPLERS (signature) Dylan Myss
PROJECT NAME/NO. WA06-14230-PH 2
PO #
REMARKS PW SIS 1/24

Page # ____ of ____

TURNAROUND TIME
☒ Standard (2 Weeks)
☐ RUSH ____
Rush charges authorized by: ____

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS							Notes
MW-1	01	3-21-08			1	X												
MW-4	02	"			1	X												
MW-5	03A-D	"							X									
MW-6	04A-D	"							X									
MW-7	05A-D	"							X									

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Dylan Myss	Dylan Myss	Adapt	3-24-08	10:10 AM
Received by: Michael Erdahl	Michael Erdahl	F&B	1	1
Relinquished by:				
Received by:		Samples received at 9 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

803238

SAMPLE CHAIN OF CUSTODY

ME 03-24-08 V3/B04

Page # _____ of _____

Send Report To

Company: Adapt : John Blend

Address: Adapt

City, State, ZIP: 615 8th Ave S.

Phone #: 206-654-7045 Fax #: 206-654-7048

SAMPLERS (signature): Dylan Myers

PROJECT NAME/NO.: WA06-14230-PH 2

PO #:

REMARKS: PW SB 1/24

TURNAROUND TIME
- ☒ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS							Notes
MW-1	01	3-21-08			1	X												
MW-4	02				1	X												
MW-5	03A-D								X									
MW-6	04A-D								X									
MW-7	05A-D	↓							X									

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Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Dylan Myers	Dylan Myers	Adapt	3-24-08	10:10 AM
Received by:	Michael Erdahl	Michael Erdahl	FB	1	1
Relinquished by:					
Received by:			Samples received at 9 °C		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

August 25, 2008

John Bhend, Project Manager
Adapt Engineering
615 8th Avenue South
Seattle, WA 98104

Dear Mr. Bhend:

Included are the results from the testing of material submitted on August 8, 2008 from the Aerowood, F&BI 808087 project. There are 10 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
ADP0825R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 8, 2008 by Friedman & Bruya, Inc. from the Adapt Engineering Aerowood, F&BI 808087 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Adapt Engineering
808087-01	MW6-S1
808087-02	MW7-S2
808087-03	MW5-S3
808087-04	MW1-S4
808087-05	MW4-S5

All quality control requirements were acceptable.

Date of Report: 08/25/08
Date Received: 08/08/08
Project: Aerowood, F&BI 808087
Date Extracted: 08/12/08
Date Analyzed: 08/13/08

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 52-134)
MW1-S4 808087-04	<50	<250	95
MW4-S5 808087-05	<50	330	84
Method Blank	<50	<250	86

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	MW6-S1	Client:	Adapt Engineering
Date Received:	08/08/08	Project:	Aerowood, F&BI 808087
Date Extracted:	08/14/08	Lab ID:	808087-01
Date Analyzed:	08/15/08	Data File:	081424.D
Matrix:	Water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	88	69	124
1,2-Dichloroethane-d4	90	67	131
Toluene-d8	92	73	132
4-Bromofluorobenzene	102	81	146

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<1	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	28	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<1 jl
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	MW7-S2	Client:	Adapt Engineering
Date Received:	08/08/08	Project:	Aerowood, F&BI 808087
Date Extracted:	08/14/08	Lab ID:	808087-02
Date Analyzed:	08/15/08	Data File:	081425.D
Matrix:	Water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	89	69	124
1,2-Dichloroethane-d4	90	67	131
Toluene-d8	91	73	132
4-Bromofluorobenzene	100	81	146

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<1	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	93	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<1 jl
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	MW5-S3	Client:	Adapt Engineering
Date Received:	08/08/08	Project:	Aerowood, F&BI 808087
Date Extracted:	08/14/08	Lab ID:	808087-03
Date Analyzed:	08/15/08	Data File:	081426.D
Matrix:	Water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	89	69	124
1,2-Dichloroethane-d4	92	67	131
Toluene-d8	92	73	132
4-Bromofluorobenzene	103	81	146

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<1	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	110	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	1.7	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<1 jl
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	Method Blank	Client:	Adapt Engineering
Date Received:	NA	Project:	Aerowood, F&BI 808087
Date Extracted:	08/14/08	Lab ID:	081294 mb
Date Analyzed:	08/14/08	Data File:	081406.D
Matrix:	Water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	89	69	124
1,2-Dichloroethane-d4	92	67	131
Toluene-d8	92	73	132
4-Bromofluorobenzene	102	81	146

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<1	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<1 jl
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

Date of Report: 08/25/08
Date Received: 08/08/08
Project: Aerowood, F&BI 808087

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	89	94	73-142	5

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QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: 808115-04 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	<1	<1	nm
Chloromethane	ug/L (ppb)	<1	<1	nm
Vinyl chloride	ug/L (ppb)	<0.2	<0.2	nm
Bromomethane	ug/L (ppb)	<1	<1	nm
Chloroethane	ug/L (ppb)	<1	<1	nm
Trichlorofluoromethane	ug/L (ppb)	<1	<1	nm
Acetone	ug/L (ppb)	<10	<10	nm
1,1-Dichloroethene	ug/L (ppb)	<1	<1	nm
Methylene chloride	ug/L (ppb)	<5	<5	nm
Methyl t-butyl ether (MTBE)	ug/L (ppb)	<1	<1	nm
trans-1,2-Dichloroethene	ug/L (ppb)	<1	<1	nm
1,1-Dichloroethane	ug/L (ppb)	<1	<1	nm
2,2-Dichloropropane	ug/L (ppb)	<1	<1	nm
cis-1,2-Dichloroethene	ug/L (ppb)	<1	<1	nm
Chloroform	ug/L (ppb)	<1	<1	nm
2-Butanone (MEK)	ug/L (ppb)	<10	<10	nm
1,2-Dichloroethane (EDC)	ug/L (ppb)	<1	<1	nm
1,1,1-Trichloroethane	ug/L (ppb)	<1	<1	nm
1,1-Dichloropropene	ug/L (ppb)	<1	<1	nm
Carbon Tetrachloride	ug/L (ppb)	<1	<1	nm
Benzene	ug/L (ppb)	<1	<1	nm
Trichloroethene	ug/L (ppb)	<1	<1	nm
1,2-Dichloropropane	ug/L (ppb)	<1	<1	nm
Bromodichloromethane	ug/L (ppb)	<1	<1	nm
Dibromomethane	ug/L (ppb)	<1	<1	nm
4-Methyl-2-pentanone	ug/L (ppb)	<10	<10	nm
cis-1,3-Dichloropropene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
trans-1,3-Dichloropropene	ug/L (ppb)	<1	<1	nm
1,1,2-Trichloroethane	ug/L (ppb)	<1	<1	nm
2-Hexanone	ug/L (ppb)	<10	<10	nm
1,3-Dichloropropane	ug/L (ppb)	<1	<1	nm
Tetrachloroethene	ug/L (ppb)	<1	<1	nm
Dibromochloromethane	ug/L (ppb)	<1	<1	nm
1,2-Dibromoethane (EDB)	ug/L (ppb)	<1	<1	nm
Chlorobenzene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
1,1,1,2-Tetrachloroethane	ug/L (ppb)	<1	<1	nm
m,p-Xylene	ug/L (ppb)	<2	<2	nm
o-Xylene	ug/L (ppb)	<1	<1	nm
Styrene	ug/L (ppb)	<1	<1	nm
Isopropylbenzene	ug/L (ppb)	<1	<1	nm
Bromoform	ug/L (ppb)	<1	<1	nm
n-Propylbenzene	ug/L (ppb)	<1	<1	nm
Bromobenzene	ug/L (ppb)	<1	<1	nm
1,3,5-Trimethylbenzene	ug/L (ppb)	<1	<1	nm
1,1,2,2-Tetrachloroethane	ug/L (ppb)	<1	<1	nm
1,2,3-Trichloropropane	ug/L (ppb)	<1	<1	nm
2-Chlorotoluene	ug/L (ppb)	<1	<1	nm
4-Chlorotoluene	ug/L (ppb)	<1	<1	nm
tert-Butylbenzene	ug/L (ppb)	<1	<1	nm
1,2,4-Trimethylbenzene	ug/L (ppb)	<1	<1	nm
sec-Butylbenzene	ug/L (ppb)	<1	<1	nm
p-Isopropyltoluene	ug/L (ppb)	<1	<1	nm
1,3-Dichlorobenzene	ug/L (ppb)	<1	<1	nm
1,4-Dichlorobenzene	ug/L (ppb)	<1	<1	nm
1,2-Dichlorobenzene	ug/L (ppb)	<1	<1	nm
1,2-Dibromo-3-chloropropane	ug/L (ppb)	<1	<1	nm
1,2,4-Trichlorobenzene	ug/L (ppb)	<1	<1	nm
Hexachlorobutadiene	ug/L (ppb)	<1	<1	nm
Naphthalene	ug/L (ppb)	<1	<1	nm
1,2,3-Trichlorobenzene	ug/L (ppb)	<1	<1	nm

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QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	50	85	82	22-164	4
Chloromethane	ug/L (ppb)	50	88	82	43-147	7
Vinyl chloride	ug/L (ppb)	50	84	80	48-142	5
Bromomethane	ug/L (ppb)	50	100	91	37-160	9
Chloroethane	ug/L (ppb)	50	80	80	28-161	0
Trichlorofluoromethane	ug/L (ppb)	50	107	102	52-143	5
Acetone	ug/L (ppb)	50	109	101	21-187	8
1,1-Dichloroethene	ug/L (ppb)	50	95	90	61-127	5
Methylene chloride	ug/L (ppb)	50	91	89	56-136	2
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	91	90	82-119	1
trans-1,2-Dichloroethene	ug/L (ppb)	50	93	90	78-118	3
1,1-Dichloroethane	ug/L (ppb)	50	92	90	78-117	2
2,2-Dichloropropane	ug/L (ppb)	50	85	82	62-139	4
cis-1,2-Dichloroethene	ug/L (ppb)	50	95	93	81-118	2
Chloroform	ug/L (ppb)	50	93	91	78-120	2
2-Butanone (MEK)	ug/L (ppb)	50	93	88	53-159	6
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	96	95	74-128	1
1,1,1-Trichloroethane	ug/L (ppb)	50	89	86	70-135	3
1,1-Dichloropropene	ug/L (ppb)	50	91	89	83-120	2
Carbon Tetrachloride	ug/L (ppb)	50	86	85	65-140	1
Benzene	ug/L (ppb)	50	91	90	79-115	1
Trichloroethene	ug/L (ppb)	50	89	88	80-114	1
1,2-Dichloropropane	ug/L (ppb)	50	93	92	80-117	1
Bromodichloromethane	ug/L (ppb)	50	96	94	79-127	2
Dibromomethane	ug/L (ppb)	50	99	96	85-116	3
4-Methyl-2-pentanone	ug/L (ppb)	50	96	95	57-163	1
cis-1,3-Dichloropropene	ug/L (ppb)	50	95	94	85-121	1
Toluene	ug/L (ppb)	50	89	87	82-116	2
trans-1,3-Dichloropropene	ug/L (ppb)	50	95	94	83-125	1
1,1,2-Trichloroethane	ug/L (ppb)	50	94	91	81-114	3
2-Hexanone	ug/L (ppb)	50	94	92	60-167	2
1,3-Dichloropropane	ug/L (ppb)	50	92	90	81-115	2
Tetrachloroethene	ug/L (ppb)	50	90	88	83-115	2
Dibromochloromethane	ug/L (ppb)	50	94	93	77-128	1
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	92	90	81-117	2
Chlorobenzene	ug/L (ppb)	50	87	86	80-109	1
Ethylbenzene	ug/L (ppb)	50	89	87	82-113	2
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	89	88	74-126	1
m,p-Xylene	ug/L (ppb)	100	91	88	82-115	3
o-Xylene	ug/L (ppb)	50	88	86	83-116	2
Styrene	ug/L (ppb)	50	92	90	85-116	2
Isopropylbenzene	ug/L (ppb)	50	85	83	83-120	2
Bromoform	ug/L (ppb)	50	98	95	77-119	3
n-Propylbenzene	ug/L (ppb)	50	90	87	77-122	3
Bromobenzene	ug/L (ppb)	50	92	90	80-112	2
1,3,5-Trimethylbenzene	ug/L (ppb)	50	91	88	80-119	3
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	96	94	72-115	2
1,2,3-Trichloropropane	ug/L (ppb)	50	97	96	77-114	1
2-Chlorotoluene	ug/L (ppb)	50	88	86	76-116	2
4-Chlorotoluene	ug/L (ppb)	50	88	85	78-116	3
tert-Butylbenzene	ug/L (ppb)	50	86	83	77-121	4
1,2,4-Trimethylbenzene	ug/L (ppb)	50	89	87	80-120	2
sec-Butylbenzene	ug/L (ppb)	50	87	84	77-122	4
p-Isopropyltoluene	ug/L (ppb)	50	89	86	84-119	3
1,3-Dichlorobenzene	ug/L (ppb)	50	87	84	78-114	4
1,4-Dichlorobenzene	ug/L (ppb)	50	89	87	79-110	2
1,2-Dichlorobenzene	ug/L (ppb)	50	83	81	80-114	2
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	78	76 vo	78-125	3
1,2,4-Trichlorobenzene	ug/L (ppb)	50	81	78	76-113	4
Hexachlorobutadiene	ug/L (ppb)	50	79	75	65-129	5
Naphthalene	ug/L (ppb)	50	81	78	68-114	4
1,2,3-Trichlorobenzene	ug/L (ppb)	50	81	77	74-124	5

Note: The calibration verification result for 1,2-dibromo-3-chloropropane exceeded 15% deviation. The average deviation for all compounds was not greater than 15%; therefore, the calibration is considered valid.

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probablility.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.

808087

SAMPLE CHAIN OF CUSTODY

ME 8/8/08 VI/C03

Page # 1 of 1

Send Report To John Bhend
Company Adapt Engr
Address 615 8th Ave S
City, State, ZIP 98104
Phone # _____ Fax # _____

SAMPLERS (signature) Devron
PROJECT NAME/NO. Aerowood
PO #
REMARKS

TURNAROUND TIME
☐ Standard (2 Weeks)
☐ RUSH _____
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS								Notes
MW6-S1	01 A-C	8/7	1305	H_2O	3				X										
MW7-S2	02 A-C	"	1347	"	3				X										
MW5-S3	03 A-C	"	1435	"	3				X										
MW1-S4	04	"	1512	"	1	X													
MW4-S5	05	"	1601	"	1	X													
																			Samples received at 5 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Devron	Devron Woods	Adapt	8/8	1019
Received by: Mylam	Nhan Pham	F & BT	8/8/08	10:19
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

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