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CLEANUP ACTION PROGRESS REPORT

DECEMBER 2008

WHIDBEY MARINE & AUTO SUPPLY FACILITY 1689 MAIN STREET FREELAND, WASHINGTON

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Farallon PN: 454-001

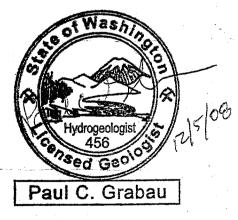
For:

Whidbey Marine & Auto Supply 1689 Main Street Freeland, Washington

December 5, 2008

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1.0 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) has prepared this progress report to document the status of the cleanup action related to the release of gasoline from the underground storage tank (UST) system at the Whidbey Marine & Auto Supply facility located at 1689 Main Street in Freeland, Washington (herein referred to as the Facility) (Figure 1). The cleanup action at the Facility is being conducted under the Washington State Department of Ecology (Ecology) Voluntary Cleanup Program. The Facility has been assigned Toxics Cleanup Program Identification Number NW1529.

This progress report presents the results of the groundwater monitoring event completed in September 2008, and a discussion of the overall progress of the cleanup action. The report also details the operation and maintenance (O&M) activities conducted from June 30 to October 21, 2008 for the soil vapor extraction (SVE) system installed at the Facility. The SVE system currently consists of a regenerative blower and catalytic oxidizer (Catox) connected via subsurface piping to SVE wells SVE-1, SVE-2S, and SVE-2D, and dual purpose SVE/monitoring well MW-1 (Figure 2). The SVE system was installed to remove gasoline-range petroleum hydrocarbons in vadose zone soil identified during soil and groundwater investigations conducted at the Facility in 2005 and 2006.

This progress report is organized as follows:

- Section 2 presents the groundwater sampling methods and analytical results for the September 2008 groundwater monitoring event at the Facility.
- Section 3 details the O&M activities conducted on the SVE system from June 30 to October 21, 2008.
- Section 4 provides Farallon's summary and conclusions pertaining to recent monitoring and remediation activities conducted at the Facility.

2.0 GROUNDWATER MONITORING

The groundwater monitoring conducted at the Facility on September 9, 2008 included obtaining depth to groundwater measurements and collecting groundwater samples from monitoring wells MW-1 through MW-4, MW-6, and MW-8 (Figure 2). Monitoring well MW-5 was dry at the time of the September 2008 monitoring event and there was only 0.11 foot of water measured in monitoring well MW-7. The September 2008 groundwater monitoring and sampling event was the seventh event conducted at the Facility following start-up of the SVE system in September 2006. Details of the field activities and the results for the September 2008 monitoring and sampling event are presented below.

2.1 FIELD METHODS

Prior to sampling, Farallon measured the depth to groundwater in each monitoring well using an electronic water-level indicator. The monitoring wells were opened and the water levels were allowed to equilibrate before measurements were taken. The groundwater level in each monitoring well was measured to the surveyed reference point on the top of the well casing to derive the groundwater elevation at each location. There was not sufficient groundwater in monitoring well MW-7 to sample. The water level measured in monitoring well MW-7 appears to have been static water in the capped portion of the bottom of the well, below the well screen.

Groundwater was purged from each monitoring well at a flow rate of approximately 200 milliliters per minute using a bladder pump, where feasible. There was not sufficient groundwater in monitoring well MW-6 at the time of sampling to use the bladder pump so a disposable bailer was used to purge and collect the groundwater samples from the monitoring well. Field measurements for pH, temperature, specific conductivity, dissolved oxygen, and oxidation/reduction potential were collected during groundwater purging using a YSI Model 600XL water quality analyzer equipped with a flow-through cell. Groundwater samples were collected after the temperature, conductivity, and pH parameters stabilized. Stabilization was determined as a relative percent difference of less than 3 percent for temperature and conductivity, and a change of +0.1 pH unit between readings for three consecutive measurements. The samples obtained using the bladder pump were collected by pumping groundwater directly from each well through dedicated polyethylene tubing into laboratoryprepared containers. The samples from monitoring well MW-6 were collected by pouring the groundwater directly from the dedicated disposable bailer into the sample containers. The samples were labeled, placed on ice, and transported to CCI Analytical Laboratories, Inc. in Everett, Washington for analysis following chain-of-custody protocols.

2.2 ANALYTICAL METHODS

The groundwater samples were analyzed for total petroleum hydrocarbons as gasoline-range organics (GRO) by Northwest Method NWTPH-Gx and for benzene, toluene, ethylbenzene, and xylenes (BTEX) by U.S. Environmental Protection Agency Method 8021B.

2.3 GROUNDWATER MONITORING RESULTS

Table 1 presents a summary of the groundwater elevation data for the Facility. Table 2 presents the groundwater analytical results for September 2008 and previous quarterly monitoring events, including a comparison to the corresponding Washington State Model Toxics Control Act (MTCA) Method A groundwater cleanup levels. A copy of the laboratory analytical report for the September 2008 groundwater monitoring event is provided in Appendix A.

2.3.1 Groundwater Elevation

Groundwater elevations measured at the Facility on September 9, 2008 ranged from 65.0 feet above mean sea level (msl) in monitoring well MW-1 to 56.21 feet above msl in monitoring well MW-6 (Table 1). Monitoring well MW-5 has been dry each time it has been monitored since it was installed in February 2007. Figure 3 depicts the groundwater elevation contours for the Facility based on the water levels measured on September 9, 2008. As shown on Figure 3, the general groundwater flow direction at the Facility is to the west, with a hydraulic gradient of approximately 0.02 foot per foot in the eastern area of the Facility and a considerably steeper gradient of 0.18 foot per foot to the west.

2.3.2 Analytical Results

The groundwater analytical data for the samples collected on September 9, 2008 are summarized in Table 2 along with the previous analytical results for samples collected at the Facility. GRO was detected in the groundwater samples collected from monitoring wells MW-2, MW-4, MW-6, and MW-8 at concentrations exceeding the MTCA Method A cleanup level for groundwater of 800 micrograms/liter (μ g/l). The highest detected concentrations of GRO during the September 2008 monitoring event were 120,000 μ g/l, which were detected in both the groundwater sample and associated quality control duplicate sample collected from monitoring well MW-4. The groundwater sample collected from monitoring well MW-2 contained GRO at a concentration of 20,000 μ g/l. Samples collected from newly installed monitoring wells MW-6 and MW-8 contained GRO concentrations of 42,000 and 34,000 μ g/l, respectively. GRO was not detected at concentrations at or above the MTCA Method A cleanup level or laboratory reporting limits in the groundwater samples collected from monitoring wells MW-1 or MW-3. This is the fifth consecutive groundwater monitoring event in which GRO was not detected above the MTCA Method A cleanup level at monitoring well MW-1, which was installed proximal to the suspected source area.

One or more BTEX constituents were detected above their respective MTCA Method A cleanup levels in the groundwater samples collected from monitoring wells MW-2, MW-4, MW-6, and MW-8 during the September 2008 monitoring event. The highest detected concentration of benzene of 450 μ g/l was detected in the sample collected from monitoring well MW-6.. The highest detected concentration of toluene of 43,000 μ g/l was detected in the duplicate sample collected from monitoring well MW-4. The highest detected concentration of ethylbenzene was detected in the groundwater sample collected from monitoring well MW-4, at 2,000 μ g/l. The highest detected concentrations of xylenes of 11,000 μ g/l were detected in the groundwater sample collected from monitoring well MW-4. BTEX constituents were

not detected at or above their respective laboratory reporting limits in the groundwater samples collected from monitoring wells MW-1 or MW-3 during the September 2008 monitoring event.

2.3.3 Purge Water Handling

A total of approximately 5 gallons of purge and decontamination water was generated during the September 2008 sampling event. The purge water is being stored at the Facility in a 55-gallon drum.

3.0 SVE SYSTEM OPERATION AND MAINTENANCE ACTIVITIES

Continuous operation of the SVE system at the Facility began on September 13, 2006. SVE treatment system monitoring requirements are specified in the Order of Approval to Construct #960 issued by the Northwest Clean Air Agency. During the period covered by this progress report, Facility visits were conducted by Farallon on June 30, August 14, September 9, and October 21, 2008.

The operating temperature for the catalyst beds in the Catox unit is set at 550 degrees Fahrenheit (°F), with the high temperature alarm set at 1,150°F. The catalyst bed temperatures recorded during Facility visits over this monitoring period ranged from 559 to 568°F. The SVE system operation monitoring data are summarized in Table 3.

The SVE system currently extracts soil vapor from each of the four SVE wells at the Facility. The system operates with the air dilution valve located upstream of the SVE blower fully closed so that all influent vapor to the Catox system is derived from the subsurface soil beneath the Facility. As measured with a photoionization detector, influent vapor concentrations to the Catox unit have ranged from 58 to 105 parts per million over this monitoring period, with treatment system air flow rates ranging from 166.3 to 210.3 standard cubic feet per minute. The system air flow rate is measured upstream of the SVE blower and downstream of the water knockout assembly.

Influent gasoline vapor concentrations to the Catox unit have ranged from 30 to 100 parts per million vapor over the monitoring period, as measured with colorimetric tubes for gasoline. Influent vapor samples were collected for laboratory analysis on June 30, August 14, September 9, and October 21, 2008 using Tedlar bags. The analytical results for the Tedlar bag influent vapor samples for GRO ranged from 170 to 590 μ g/l. The GRO and BTEX analytical results for the influent vapor samples are provided in Table 4. Benzene concentrations for the Tedlar bag influent vapor samples ranged from 1 to 3 μ g/l over the monitoring period covered by this report. Toluene concentrations in the influent vapor samples ranged from 2 to 3 μ g/l, and total xylenes concentrations ranged from 7 to 14 μ g/l over the reporting period. Copies of the laboratory analytical reports are provided in Appendix A.

Based on the measured air flow and influent GRO vapor concentrations, contaminant removal rates ranging from 2.4 to 9.7 pounds per day were calculated over the period of SVE system operation from May 14 through October 21, 2008. Contaminant mass removal calculations and results are presented in Table 5. An estimated total mass of 11,863 pounds of gasoline-range petroleum hydrocarbon constituents have been removed in the period from system start-up through October 21, 2008.

4.0 SUMMARY AND CONCLUSIONS

The groundwater elevations measured between June and October 2008 fell slightly and showed a general westerly direction of groundwater flow, consistent with the flow direction previously determined for the April 2008 monitoring event. The groundwater gradient steepens sharply to the west of the Facility, in the down-gradient direction of groundwater flow.

The analytical results of the September 2008 groundwater monitoring event indicate that elevated concentrations of GRO and BTEX constituents are present in groundwater in the southwestern portion of the Facility and in groundwater on the southeastern portion of the west-adjacent property. The highest concentrations of GRO and BTEX constituents were detected in groundwater in the vicinity of groundwater monitoring well MW-4 and in groundwater monitoring wells MW-6 and MW-8 which were installed in March 2008. There was not a sufficient volume of groundwater present in monitoring well MW-7 for sampling during the September 2008 monitoring event.

Concentrations of GRO and BTEX constituents in groundwater near the source area have remained below MTCA Method A cleanup levels since March 2007 as shown by the analytical results for the groundwater samples collected from monitoring well MW-1. The September 2008 analytical results for samples collected from monitoring well MW-2 showed an anomalous yet significant increase in GRO and BTEX concentrations relative to previous monitoring events. The GRO concentrations in groundwater samples from monitoring well MW-2 have been steadily increasing since March 2007, but increased by over five-fold between April and September 2008. The reason for the sharp increase is not clear. The Facility ceased selling fuel earlier in 2008.

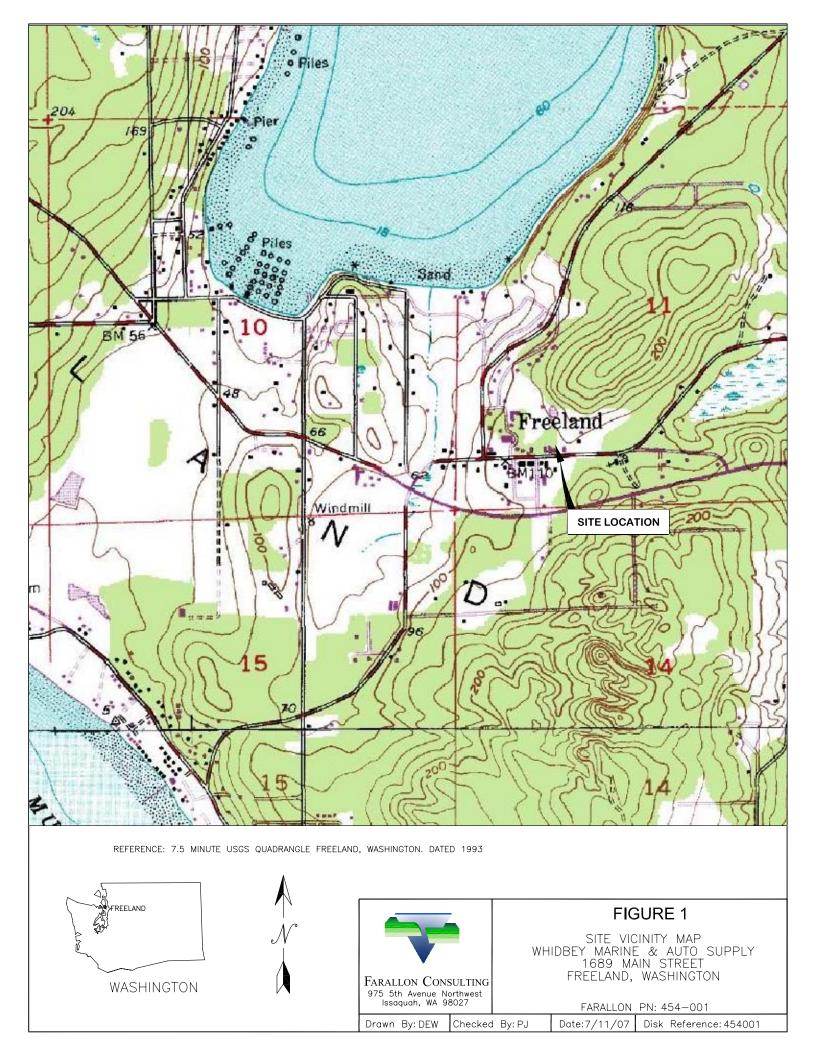
The SVE system is effectively removing and treating vapor-phase petroleum hydrocarbons from subsurface soil at the Facility. Contaminant extraction rates were estimated to be between 2.4 and 9.7 pounds per day over the period of operation of the treatment system covered by this report, and currently are at the lower end of this range. Petroleum hydrocarbons extraction rates of over 150 pounds per day were documented in September 2006. Contaminant extractions rates are decreasing as the bulk of the contaminant mass is removed from subsurface soil. All four of the SVE wells at the Facility currently are being used for extraction of vapors from the vadose zone in the area of the release.

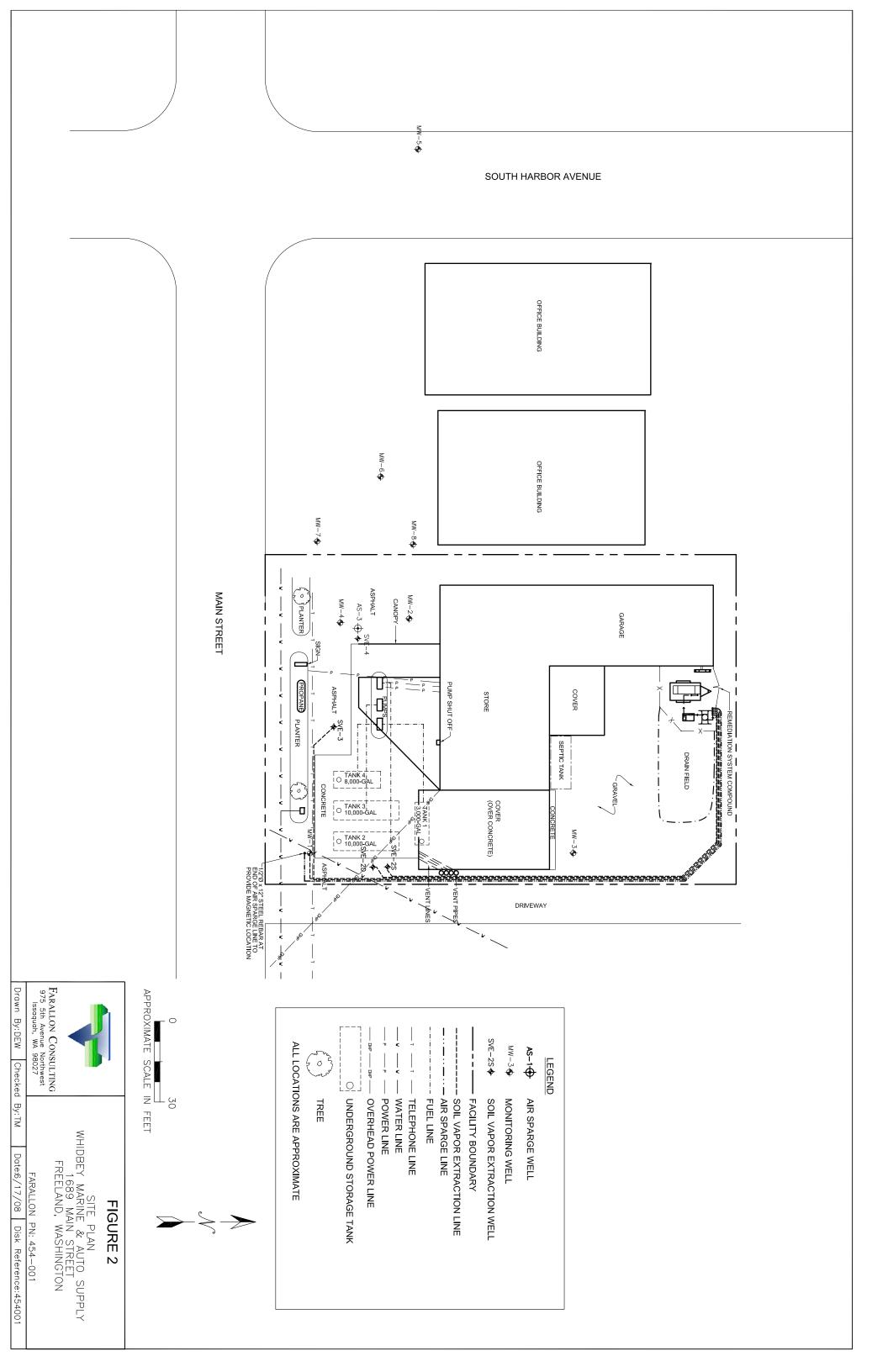
Farallon is currently negotiating with Island County to install additional monitoring wells within the South Harbor Avenue and Main Street rights-of-way. The proposed monitoring well locations are shown on Figure 4. These locations were selected to aid in delineating the extent of groundwater contamination and further characterize the hydrogeologic conditions down-gradient of the Facility. Following completion of the installation and sampling of the new monitoring wells, Farallon will assess the feasibility of cleanup alternatives for groundwater at the Facility and possible augmentation of the soil cleanup methods currently being used.

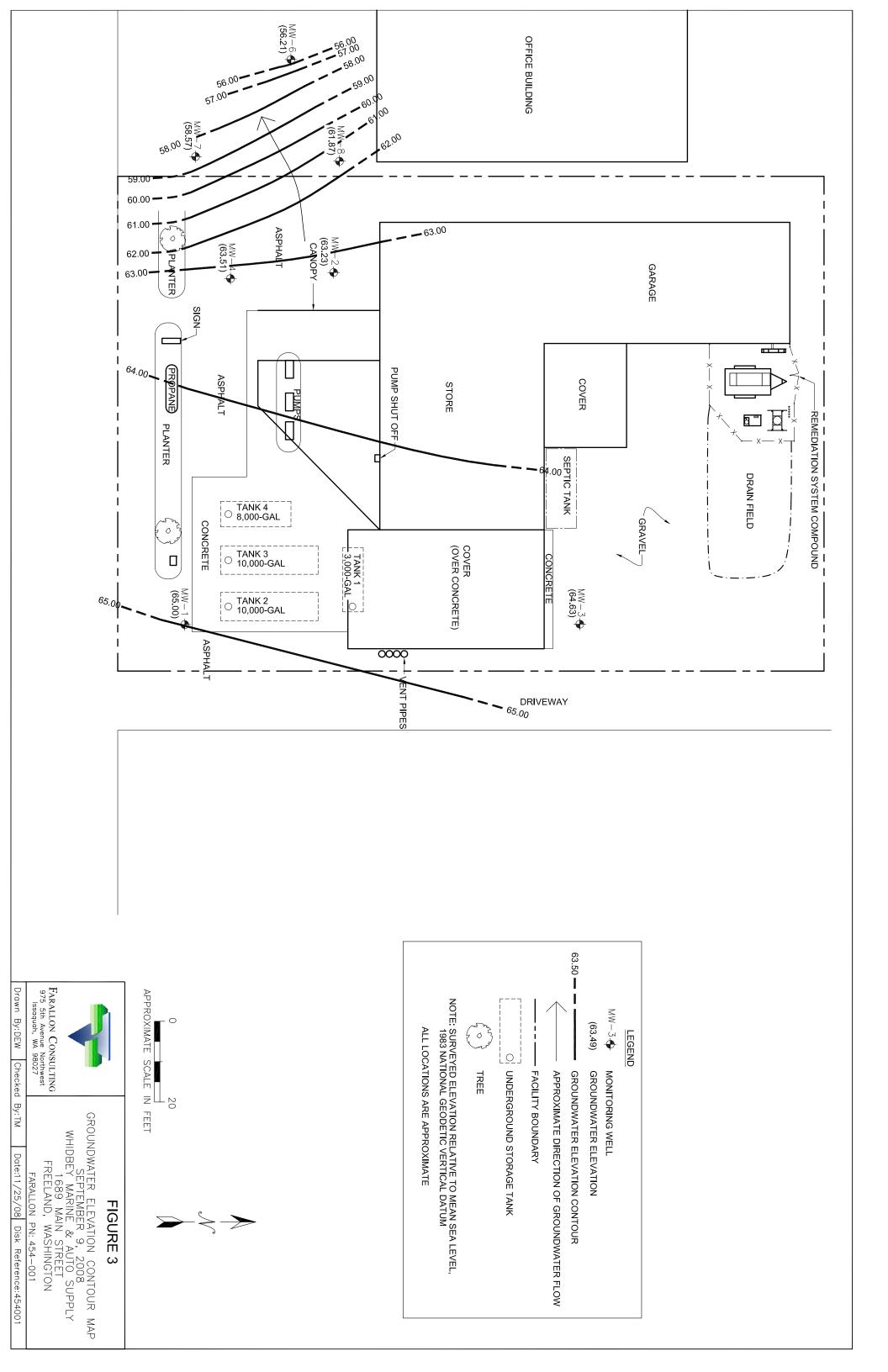
FIGURES

CLEANUP ACTION PROGRESS REPORT DECEMBER 2008 WHIDBEY MARINE & AUTO SUPPLY FACILITY 1689 Main Street Freeland, Washington

Farallon PN: 454-001









TABLES

CLEANUP ACTION PROGRESS REPORT DECEMBER 2008 WHIDBEY MARINE & AUTO SUPPLY FACILITY 1689 Main Street Freeland, Washington

Farallon PN: 454-001

Table 1Groundwater Elevation DataWhidbey Marine & Auto SupplyFreeland, WashingtonFarallon PN: 454-001

Well Identification	Date	Top of Well Casing Elevation (feet) ¹	Depth to Water (feet) ²	Groundwater Elevation (feet) ¹
	12/5/05	116.64	52.54	64.10
	6/7/06		52.67	63.78
	10/9/06		51.93	64.52
	1/9/07		51.80	64.65
	3/27/07		51.50	64.95
MW-1 ³	6/19/07		51.66	64.79
IVI VV - 1	12/7/07	116.45	51.98	64.47
	4/17/08		51.10	65.35
	6/30/08		51.24	65.21
	8/14/08		51.36	65.09
	9/9/08		51.45	65.00
	10/21/08		51.63	64.82
	12/5/05		55.06	62.43
	6/7/06	-	55.56	61.93
	10/9/06		54.69	62.80
	1/9/07	-	54.60	62.89
	3/27/07	-	54.44	63.05
MW-2	6/19/07	117.49	54.50	62.99
11111 2	12/7/07	117.19	54.81	62.68
	4/17/08		54.06	63.43
	6/30/08	-	54.12	63.37
	8/14/08	-	54.21	63.28
	9/9/08	-	54.26	63.23
	10/21/08		54.44	63.05
	12/5/05		53.48	63.99
	6/7/06		53.96	63.51
	10/9/06		53.26	64.21
	1/9/07		53.02	64.45
	3/27/07		52.82	64.65
MW-3	6/19/07	117.47	52.70	64.77
	12/7/07		53.33	64.14
	4/17/08		52.50	64.97
	6/30/08		52.66	64.81
	8/14/08		52.76	64.71
	9/9/08		52.84	64.63
	10/21/08		52.99	64.48

Table 1Groundwater Elevation DataWhidbey Marine & Auto SupplyFreeland, WashingtonFarallon PN: 454-001

Well Identification	Date	Top of Well Casing Elevation (feet) ¹	Depth to Water (feet) ²	Groundwater Elevation (feet) ¹
	3/27/07		53.94	63.33
	6/19/07	-	54.02	63.25
	12/7/07		54.28	62.99
MXX 4	4/17/08	117.07	53.58	63.69
MW-4	6/30/08	117.27	53.64	63.63
	8/14/08		53.71	63.56
	9/9/08		53.76	63.51
	10/21/08	-	53.89	63.38
	4/17/08		59.84	56.72
	6/30/08		60.07	56.49
MW-6	8/14/08	116.56	60.26	56.30
	9/9/08		60.35	56.21
	10/21/08		60.47	56.09
	4/17/08		56.98	59.84
	6/30/08		57.42	59.40
MW-7	8/14/08	116.82	57.87	58.95
	9/9/08		58.25	58.57
	10/21/08		58.34	58.48
	4/17/08		55.29	61.94
	6/30/08		55.34	61.89
MW-8	8/14/08	117.23	55.33	61.90
	9/9/08		55.36	61.87
	10/21/08		55.47	61.76

NOTES:

¹Feet above mean sea level, based on May 2008 survey data.

²Feet below top of well casing.

³Top of well casing elevation adjusted using change in total depth measurements before and after change in well casing length following soil vapor extraction system installation.

Table 2Summary of Laboratory Analytical Results for GroundwaterWhidbey Marine & Auto SupplyFreeland, WashingtonFarallon PN: 454-001

				Analytical R	esults (microg	grams per liter)	
Sample Location	Sample Identification	Sample Date	GRO ¹	Benzene ²	Toluene ²	Ethylbenzene ²	Xylenes ²
	MW1-120505	12/5/05	4,200	480	770	65	318
	MW1-060706	6/7/06	5,800	500	1,000	70	780
	MW-1-100906	10/9/06	17,000	2,400	3,800	270	2,200
	MW1-010907	1/9/07	1,500	14	6	11	120
	QA/QC-010907	1/9/07	1,500	11	6	10	110
MW-1	MW1-032707	3/27/07	290	1	1	<1	17
	QA/QC-032707	3/27/07	320	1	<1	<1	19
	MW1-061907	6/19/07	73	<1	<1	<1	<3
	MW1-120707	12/7/07	110	<1	<1	<1	<3
	MW1-041808	4/18/08	74	<1	<1	<1	<3
	MW1-090908	9/9/08	68	<1	<1	<1	<3
	MW2-120505	12/5/05	570	110	110	2.8	50
	MW2-060706	6/7/06	2,800	440	540	15	430
	MW2-100906	10/9/06	370	20	44	1	77
	MW2-010907	1/9/07	730	35	69	11	150
MW-2	MW2-032707	3/27/07	610	6	9	<1	150
	MW2-061907	6/19/07	1,000	17	52	22	200
	MW2-120707	12/7/07	2,300	7	310	36	270
	MW2-041808	4/18/08	3,700	<1	57	33	890
	MW2-090908	9/9/08	20,000	<50	3,100	470	4,200
	MW3-120505	12/5/05	<100	<1.0	<1.0	<1.0	<2.0
	FD-120505	12/5/05	<100	<1.0	<1.0	<1.0	<2.0
	MW3-060706	6/7/06	<50	<1	<1	<1	<3
	MW3-100906	10/9/06	<50	<1	<1	<1	<3
	MW3-010907	1/9/07	<50	<1	<1	<1	<3
MW-3	MW3-032707	3/27/07	<50	<1	<1	<1	<3
	MW3-061907	6/19/07	<50	<1	<1	<1	<3
	QA/QC-061907	6/19/07	<50	<1	<1	<1	<3
	MW3-120707	12/7/07	<50	<1	<1	<1	<3
	MW3-041808	4/18/08	<50	<1	<1	<1	<3
	MW3-090908	9/9/08	<50	<1	<1	<1	<3
ATCA Metho	od A Cleanup Levels	for					
Groundwater	3		800	5	1,000	700	1,000

Table 2Summary of Laboratory Analytical Results for GroundwaterWhidbey Marine & Auto SupplyFreeland, WashingtonFarallon PN: 454-001

				Analytical R	esults (microg	grams per liter)	
Sample Location	Sample Identification	Sample Date	GRO ¹	Benzene ²	Toluene ²	Ethylbenzene ²	Xylenes ²
	MW4-032707	3/27/07	99,000	31,000	32,000	970	6,000
	MW4-061907	6/19/07	110,000	22,000	36,000	1,600	8,200
	MW4-120707	12/7/07	39,000	7,600	12,000	300	2,400
MW-4	QA/QC-120707	12/7/07	60,000	9,500	18,000	710	4,700
	MW4-041808	4/18/08	140,000	530	42,000	1,600	9,400
	MW4-090908	9/9/08	120,000	150	40,000	2,000	11,000
	QA/QC-1-090908	9/9/08	120,000	150	43,000	1,900	11,000
MW-6	MW6-041708	4/18/08	23,000	260	1,500	530	3,600
IVI VV -0	MW6-090908	9/9/08	42,000	450	8,500	1,300	7,800
MW-7	MW7-041808	4/18/08	54,000	13,000	17,000	420	3,700
	MW8-041808	4/18/08	5,400	<1	57	57	890
MW-8	QA/QC-1-041808	4/18/08	5,600	<1	42	55	930
	MW8-090908	9/9/08	34,000	<50	3,500	670	6,700
MTCA Metho	od A Cleanup Levels						
Groundwater	-	800	5	1,000	700	1,000	

NOTES:

<Indicates analyte not detected at or above the stated laboratory practical quantitation limit (PQL).

GRO = total petroleum hydrocarbons as gasoline-range organics

Results in Bold indicate concentration exceeds Washington State Department of Ecology Model Toxics

Control Act Cleanup Regulation (MTCA) Method A cleanup levels for groundwater.

¹Analyzed by Northwest Method NWTPH-Gx.

²Analyzed by U.S. Environmental Protection Agency Method 8021B.

³MTCA Method A Cleanup Levels for Groundwater, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised November 2007.

Table 3Soil Vapor Extraction System Operation Monitoring ResultsWhidbey Marine & Auto SupplyFreeland, WashingtonFarallon PN: 454-001

	Air Flow			Flow Rates ³ (scfm)					Influent	Concentrat	tions			Catalyst
	Rate ¹	Vacuum ²		Flow Rat	es (scim)	-	SVE Syste	m (ppmv) ⁴		PID Meas	urements	(ppm)	-	Temperature
Date	(scfm)	(iow)	MW-1	SVE-2D	SVE-2S	SVE-3	Gasoline	Benzene	Catox Inlet ⁵	MW-1 ⁶	SVE-2D ⁶	SVE-2S ⁶	SVE-3 ⁶	(°F)
9/8/06	177.0	17.5	NM	NO	NO	NO	1,700	NM	1,320	NM	NO	NO	NO	909
9/13/06	167.0	NM	NM	NO	NO	NO	NM	NM	843	NM	NO	NO	NO	792
9/20/06	179.0	NM	NM	NO	NO	NO	NM	NM	1,248	NM	NO	NO	NO	980
9/27/06	185.2	17.0	18.73	NO	NO	NO	2,200	NM	1,865	NM	NO	NO	NO	984
10/04/06	179.1	18.5	24.77	NO	NO	NO	2,200	NM	NM	NM	NO	NO	NO	1,075
10/09/06	188.1	18.0	26.48	NO	NO	NO	2,000	15	1,909	NM	NO	NO	NO	1,048
11/06/06	172.8	19.0	11.84	25.12	20.51	NO	800	4	1,230	20-79	4,160	>9,999	NO	879
11/20/06	172.8	16.0	11.84	34.53	11.84	NO	500	1	1,200	450-1,000	4,950	900-1,200	3,320	845
12/19/06	176.0	26.0	13.24	49.50	32.43	33.5	200	1	1,050	400-700	1,050	600	475-700	930
1/9/07	166.3	28.5	13.24	57.4	8.37	47.7	100	1	1,750	210	1,950	110	1,200	900
2/6/07	169.6	38.5	5.92	83.7	11.84	71.3	80	0.5	1,489	130	946	65.9	425	723
3/12/07	154.2	38.5	14.5	83.7	11.84	70.1	150	<1	645	14.1	600	22.5	230	663
3/27/07	154.2	38.5	11.84	82.7	22.93	71.3	175	<1	415	7.9	7.8	1.6	1.5	660
5/18/07	159.5	36.0	10.26	82.7	5.92	70.1	50	<1	335	3.5	1.6	1.7	2.3	642
6/19/07	166.3	34.5	11.84	79.4	10.26	74.9	60	<1	435	0	0.0	0	0.0	647
7/16/07	156.0	38.0	10.26	87.8	10.26	74	100	<1	350	0.03	0.2	0.3	0.3	641
8/16/07	166.3	38.0	8.37	74.9	26.48	79.4	150	<1	288	1	1.1	1.3	1.1	646
9/14/07	210.3	39.0	26.48	85.8	25.12	74.9	30	< 0.2	244	0.6	0.5	0.18	1.6	571
10/22/07	135.1	40.0	42.7	85.8	45.9	70.1	<30	< 0.2	258	0	0.0	0	0.0	578
12/6/07	182.2	40.0	41.87	83.7	73.7	68.8	<30	< 0.2	282	0.9	0.3	0.7	0.5	618
1/10/08	157.8	40.2	13.24	81.6	8.37	70.1	NM	NM	184	0.2	0.2	0.4	0.3	646
2/8/08	172.8	43.0	16.75	102.56	99.09	72.5	NM	NM	162	0	1.5	0.3	0.7	636
3/21/08	386.4	43.0	29.01	132.4	39.72	70.1	40	< 0.1	127	1.3	0.9	0.5	1.1	574
4/17/08	182.2	42.0	32.43	81.6	41.87	83.7	60	0.1	105	0	0.1	0.2	0.0	571

Table 3Soil Vapor Extraction System Operation Monitoring ResultsWhidbey Marine & Auto SupplyFreeland, WashingtonFarallon PN: 454-001

				Elerr De4	tes ³ (scfm)		Influent Concentrations							
	Air Flow Rate ¹	Vacuum ²		Flow Kat	es (scim)		SVE Syste	m (ppmv) ⁴		PID Meas	surements	(ppm)		Catalyst Temperature
Date	(scfm)	(iow)	MW-1	SVE-2D	SVE-2S	SVE-3	Gasoline	Benzene	Catox Inlet ⁵	MW-1⁶	SVE-2D ⁶	SVE-2S ⁶	SVE-3 ⁶	
5/14/08	159.5	40.0	11.84	87.8	11.84	79.4	30	< 0.1	106	0.6	0.4	0.8	0.7	562
6/30/08	196.8	39.0	26.48	77.2	27.77	83.7	100	< 0.1	105	0.1	0.6	0.3	0.2	568
8/14/08	166.3	30.8	11.84	78.3	18.73	72.5	60	< 0.1	71	1.2	0.0	0.0	0.0	565
9/9/08	210.3	27.0	10.26	57.4	60.7	53.6	50	<1	86	0.3	0.9	0.8	0.1	564
10/21/08	166.3	29.0	8.37	59.2	59.5	53.0	30	<1	58	0.0	0.0	0.0	0.0	559

NOTES:

¹Soil vapor extraction (SVE) remediation system influent air flow rate measured upstream of blower.

²Vacuum measurement collected downstream of water knockout and upstream of SVE blower.

³Air flow rates as measured at individual SVE pipes at piping array control manifold.

⁴Air concentrations measured using compound-specific Gastec colorimetric detection tubes and pump as

measured through sampling port located downstream of SVE system blower at flame arrestor.

⁵Catox inlet concentrations measured at sampling port located downstream of SVE system blower at flame arrestor.

⁶Concentrations at wells measured with PID at individual SVE pipes at piping aray control manifold.

> = concentration greater than instrument reporting range

° F = degrees Fahrenheit

- iow = inches of water
- NM = not measured
- NO = well not online
- PID = photoionization detector
- ppm = parts per million (PID units)
- ppmv = parts per million volume
- scfm = standard cubic feet per minute
- SVE = soil vapor extraction

Table 4Summary of Laboratory Analytical Results for Vapor SamplesWhidbey Marine & Auto SupplyFreeland, WashingtonFarallon PN: 454-001

		Analytical Results (micrograms per liter)						
Sample Identification	Sample Date	GRO ¹	Benzene ²	Toluene ²	Ethylbenzene ²	Xylenes ²		
Influent - 092006	9/20/06	600	84	25	10	40		
Influent - 100906	10/9/06	2,700	330	200	21	78		
Influent -121906	12/19/06	1,500	130	86	33	120		
Influent - 010907	1/9/07	1,600	100	320	38	140		
Influent - 020607	2/6/07	710	34	160	26	100		
Influent - 031207	3/12/07	630	23	93	27	130		
Influent - 032707	3/27/07	400	16	49	15	68		
Influent - 051807	5/18/07	560	14	65	30	160		
Influent - 061907	6/19/07	430	7	25	12	46		
Influent-071607	7/16/07	350	10	32	18	95		
Influent-081607	8/16/07	320	11	27	13	83		
Influent-091707	9/14/07	230	9	18	8	48		
Influent-102207	10/22/07	260	10	10	5	28		
Influent-120607	12/6/07	440	11	20	8	49		
Influent-11008	1/10/08	420	6	10	6	34		
Influent-020808	2/8/08	110	4	9	4	26		
Influent-032608	3/26/08	1,200	2	7	4	22		
Influent-041708	4/17/08	440	3	6	4	19		
Influent-051408	5/14/08	270	1	4	2	13		
Influent-063008	6/30/08	590	3	5	3	13		
Influent-081408	8/14/08	280	3	4	3	14		
Influent-090908	9/9/08	220	2	2	2	7		
Influent-102108	10/21/08	170	1	2	2	12		

NOTES:

¹Analyzed by Northwest Method NWTPH-Gx.

GRO = total petroleum hydrocarbons as gasoline-range organics

²Analyzed by U.S. Environmental Protection Agency Method 8021.

Table 5Contaminant Mass Removal CalculationsWhidbey Marine & Auto SupplyFreeland, WashingtonFarallon PN: 454-001

		Influent				Mass	
	Flow Rate	Concentration ¹		Extraction Rate		Removed ³	
Date	(scfm)	(ppmv)	Factor ²	(pounds/day)	of Days	(pounds)	Notes
9/13/06	167	1,700	0.000379	107.6	-	-	Using 9/8/06 influent data
9/20/06	179	1,700	0.000379	115.3	7	753	Using 9/8/06 influent data
9/27/06	185.2	2,200	0.000379	154.4	7	807	
10/04/06	179.1	2,200	0.000379	149.3	7	1,081	
10/09/06	188.1	2,000	0.000379	142.6	5	747	
11/06/06	172.8	800	0.000379	52.4	25	3,564	3 days down time this period
11/20/06	172.8	500	0.000379	32.7	13	681	1 day down time this period
12/19/06	176.0	200	0.000379	13.3	26	851	3 days down time this period
1/9/07	166.3	100	0.000379	6.3	21	280	
2/6/07	169.6	80	0.000379	5.1	28	176	
3/12/07	154.22	150	0.000379	8.8	33	170	1 day down time this period
3/27/07	154.22	175	0.000379	10.2	15	132	
5/18/07	159.5	50	0.000379	3.0	17	174	35 days down time this period
6/19/07	166.3	60	0.000379	3.8	32	97	
7/16/07	156	100	0.000379	5.9	27	102	
8/16/07	166.3	150	0.000379	9.5	31	183	
9/14/07	210.3	30	0.000379	2.4	29	274	
10/22/07	135.1	57	0.000379	2.9	30	72	Using Tedlar bag lab data
12/6/07	182.2	97	0.000379	6.7	10	67	35 days down time this period, bag data
1/10/08	157.8	92	0.000379	5.5	33	182	3 days down time this period, bag data
2/8/08	172.8	24	0.000379	1.6	26	41	3 days down time, Tedlar bag data
3/21/08	386.4	264	0.000379	38.7	9	348	31 days down time this period, bag data
4/17/08	182.2	97	0.000379	6.7	27	181	Using Tedlar bag lab data
5/14/08	159.5	59	0.000379	3.6	20	72	7 days down time this period, bag data
6/30/08	196.8	130	0.000379	9.7	47	454	
8/14/08	166.3	62	0.000379	3.9	45	174	
9/9/08	210.3	48	0.000379	3.8	26	100	
10/21/08	166.3	37	0.000379	2.4	42	99	

Total Mass in Pounds Removed Between Start-up and 10/21/08 11,863

Table 5Contaminant Mass Removal CalculationsWhidbey Marine & Auto SupplyFreeland, WashingtonFarallon PN: 454-001

NOTES:

¹Measured by Gastec gasoline colorimetric detection tubes as ppmv or laboratory bag sample in $\mu g/L$ using the following conversion: Influent concentration in ppmv = (influent concentration in $\mu g/L$ *liters of gas per mole)/molecular weight of gasoline Where:

> liters of gas per mole = 22.4133 liters molecular weitht of gasoline = 102^4

²Conversion factor = density of air *minutes per day*molecular weight of gasoline/(molecular weight of air*1,000,000)

Where:

density of air = 0.0748 pounds/cubic foot; minutes per day = 1,440; molecular weight of gasoline = 102^4 ; and molecular weight of air = 28.96^5 . NR = system not running ppmv = parts per million volume scfm = standard cubic feet per minute µg/L = micrograms per liter

³Mass removed = flow rate (scfm)*influent concentration (ppmv)*0.000379*extraction rate (pounds/day)*number of days since last reading.

⁴Reference: U.S. Department of Army Corps of Engineers, *Environmental Engineering Manual EM 1110-1-4001*,

Appendix B - Properties of Common Organic Pollutants

⁵Reference: Handbook of Chemistry and Physics, 80th ed., Section 14, page 16.

APPENDIX A LABORATORY ANALYTICAL REPORTS

CLEANUP ACTION PROGRESS REPORT DECEMBER 2008 WHIDBEY MARINE & AUTO SUPPLY FACILITY 1689 Main Street Freeland, Washington

Farallon PN: 454-001



CLIENT: FARALLON CONSULTING 1201 CORNWALL AVE. #105 BELLINGHAM, WA 98225

DATE:	7/10/2008
CCIL JOB #:	0806213
DATE RECEIVED:	6/30/2008
WDOE ACCREDITATION #:	C1336

CLIENT CONTACT:PAUL GRABAUCLIENT PROJECT ID:454-001CLIENT SAMPLE ID:6/30/200814:50 INFLUENT-063008CCIL SAMPLE #:-01

DATA RESULTS

ANALYTE	METHOD	RESULTS *	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	590	UG/L	7/2/2008	DLC
Benzene	EPA-8021	3	UG/L	7/2/2008	DLC
Toluene	EPA-8021	5	UG/L	7/2/2008	DLC
Ethylbenzene	EPA-8021	3	UG/L	7/2/2008	DLC
Xylenes	EPA-8021	13	UG/L	7/2/2008	DLC

* "ND" INDICATES ANALYZE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

NOTE: SAMPLE INTEGRATED USING AVIATION GAS CALIBRATION CURVE DUE TO EARLY VOLATILE RANGE PEAKS TYPICAL OF AN AIR MATRIX.

APPROVED BY:

Part Bagun



CLIENT: FARALLON CONSULTING 1201 CORNWALL AVE. #105 BELLINGHAM, WA 98225
 DATE:
 7/10/2008

 CCIL JOB #:
 0806213

 DATE RECEIVED:
 6/30/2008

 WDOE ACCREDITATION #:
 C1336

CLIENT CONTACT: PAUL GRABAU CLIENT PROJECT ID: 454-001

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0806213-01	NWTPH-GX	TFT	103
0806213-01	EPA-8021	TFT	117



CLIENT: FARALLON CONSULTING 1201 CORNWALL AVE. #105 BELLINGHAM, WA 98225
 DATE:
 7/10/2008

 CCIL JOB #:
 0806213

 DATE RECEIVED:
 6/30/2008

 WDOE ACCREDITATION #:
 C1336

CLIENT CONTACT: PAUL GRABAU CLIENT PROJECT ID: 454-001

QUALITY CONTROL RESULTS

BLANK RESULTS

METHOD	MATRIX	QC BATCH ID	ASSOCIATED SAMPLES	ANALYTE	RESULT	UNITS
NWTPH-GX	Gas	GA070208	0806213-01	TPH-Volatile Range	ND(<50)	UG/L
EPA-8021	Gas	GA070208	0806213-01	Benzene	ND(<1)	UG/L
EPA-8021	Gas	GA070208	0806213-01	Toluene	ND(<1)	UG/L
EPA-8021	Gas	GA070208	0806213-01	Ethylbenzene	ND(<1)	UG/L
EPA-8021	Gas	GA070208	0806213-01	Xylenes	ND(<3)	UG/L



CLIENT: FARALLON CONSULTING 1201 CORNWALL AVE. #105 BELLINGHAM, WA 98225
 DATE:
 7/10/2008

 CCIL JOB #:
 0806213

 DATE RECEIVED:
 6/30/2008

 WDOE ACCREDITATION #:
 C1336

CLIENT CONTACT: PAUL GRABAU CLIENT PROJECT ID: 454-001

QUALITY CONTROL RESULTS

SPIKE/SPIKE DUPLICATE RESULTS

METHOD	MATRIX	QC BATCH ID	ASSOCIATED SAMPLES	ANALYTE	SPIKE RECOVERY	SPIKE DUP RECOVERY	RPD
NWTPH-GX	Gas	GA070208	0806213-01	TPH-Volatile Range	100 %	94 %	6
EPA-8021	Gas	GA070208	0806213-01	Benzene	111 %	107 %	4
EPA-8021	Gas	GA070208	0806213-01	Toluene	106 %	102 %	4
EPA-8021	Gas	GA070208	0806213-01	Ethylbenzene	110 %	106 %	4
EPA-8021	Gas	GA070208	0806213-01	Xylenes	115 %	111 %	4

APPROVED BY:

Port Bagun

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059



CLIENT: FARALLON CONSULTING 975 5th AVE. NW SUITE 100 ISSAQUAH, WA 98027

DATE:	8/19/2008
CCIL JOB #:	0808066
DATE RECEIVED:	8/14/2008
WDOE ACCREDITATION #:	C1336

CLIENT CONTACT:PAUL GRABAUCLIENT PROJECT ID:454-001CLIENT SAMPLE ID:8/14/2008CCIL SAMPLE #:-01

DATA RESULTS

ANALYTE	METHOD	RESULTS *	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	280	UG/L	8/15/2008	DLC
Benzene	EPA-8021	3	UG/L	8/15/2008	DLC
Toluene	EPA-8021	4	UG/L	8/15/2008	DLC
Ethylbenzene	EPA-8021	3	UG/L	8/15/2008	DLC
Xylenes	EPA-8021	14	UG/L	8/15/2008	DLC

* "ND" INDICATES ANALYZE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

NOTE: SAMPLE INTEGRATED USING AVIATION GAS CALIBRATION CURVE DUE TO EARLY VOLATILE RANGE PEAKS TYPICAL OF AN AIR MATRIX.

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Part Bagun



CLIENT: FARALLON CONSULTING 975 5th AVE. NW SUITE 100 ISSAQUAH, WA 98027
 DATE:
 8/19/2008

 CCIL JOB #:
 0808066

 DATE RECEIVED:
 8/14/2008

 WDOE ACCREDITATION #:
 C1336

CLIENT CONTACT: PAUL GRABAU CLIENT PROJECT ID: 454-001

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0808066-01	NWTPH-GX	TFT	105
0808066-01	EPA-8021	TFT	107



CLIENT: FARALLON CONSULTING 975 5th AVE. NW SUITE 100 ISSAQUAH, WA 98027
 DATE:
 8/19/2008

 CCIL JOB #:
 0808066

 DATE RECEIVED:
 8/14/2008

 WDOE ACCREDITATION #:
 C1336

CLIENT CONTACT: PAUL GRABAU CLIENT PROJECT ID: 454-001

QUALITY CONTROL RESULTS

BLANK RESULTS

METHOD	MATRIX	QC BATCH ID	ASSOCIATED SAMPLES	ANALYTE	RESULT	UNITS
NWTPH-GX	Gas	GA081308	0808066-01	TPH-Volatile Range	ND(<50)	UG/L
EPA-8021	Gas	GA081308	0808066-01	Benzene	ND(<1)	UG/L
EPA-8021	Gas	GA081308	0808066-01	Toluene	ND(<1)	UG/L
EPA-8021	Gas	GA081308	0808066-01	Ethylbenzene	ND(<1)	UG/L
EPA-8021	Gas	GA081308	0808066-01	Xylenes	ND(<3)	UG/L



CLIENT: FARALLON CONSULTING 975 5th AVE. NW SUITE 100 ISSAQUAH, WA 98027
 DATE:
 8/19/2008

 CCIL JOB #:
 0808066

 DATE RECEIVED:
 8/14/2008

 WDOE ACCREDITATION #:
 C1336

CLIENT CONTACT: PAUL GRABAU CLIENT PROJECT ID: 454-001

QUALITY CONTROL RESULTS

SPIKE/SPIKE DUPLICATE RESULTS

METHOD	MATRIX	QC BATCH ID	ASSOCIATED SAMPLES	ANALYTE	SPIKE RECOVERY	SPIKE DUP RECOVERY	RPD
NWTPH-GX	Gas	GA081308	0808066-01	TPH-Volatile Range	108 %	105 %	3
EPA-8021	Gas	GA081308	0808066-01	Benzene	111 %	107 %	4
EPA-8021	Gas	GA081308	0808066-01	Toluene	110 %	105 %	5
EPA-8021	Gas	GA081308	0808066-01	Ethylbenzene	104 %	99 %	5
EPA-8021	Gas	GA081308	0808066-01	Xylenes	109 %	105 %	4

APPROVED BY:

Por Bagun

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059



CLIENT: FARALLON CONSULTING 975 5th AVE. NW SUITE 100 ISSAQUAH, WA 98027

DATE:	9/17/2008
CCIL JOB #:	0809051
DATE RECEIVED:	9/11/2008
WDOE ACCREDITATION #:	C1336

CLIENT CONTACT:PAUL GRABAUCLIENT PROJECT ID:454-001CLIENT SAMPLE ID:9/9/200812:50 MW1-090908CCIL SAMPLE #:-01

DATA RESULTS

ANALYTE	METHOD	RESULTS *	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	68	UG/L	9/14/2008	DLC
Benzene	EPA-8021	ND(<1)	UG/L	9/14/2008	DLC
Toluene	EPA-8021	ND(<1)	UG/L	9/14/2008	DLC
Ethylbenzene	EPA-8021	ND(<1)	UG/L	9/14/2008	DLC
Xylenes	EPA-8021	ND(<3)	UG/L	9/14/2008	DLC

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY HIGHLY WEATHERED GASOLINE.

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

NOTE: SAMPLE INTEGRATED USING AVIATION GAS CALIBRATION CURVE DUE TO EARLY VOLATILE RANGE PEAKS TYPICAL OF AN AIR MATRIX.

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CLIENT: FARALLON CONSULTING 975 5th AVE. NW SUITE 100 ISSAQUAH, WA 98027

DATE:	9/17/2008
CCIL JOB #:	0809051
DATE RECEIVED:	9/11/2008
WDOE ACCREDITATION #:	C1336

CLIENT CONTACT:PAUL GRABAUCLIENT PROJECT ID:454-001CLIENT SAMPLE ID:9/9/200814:30 MW2-090908CCIL SAMPLE #:-02

DATA RESULTS

ANALYTE	METHOD	RESULTS *	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	20000	UG/L	9/14/2008	DLC
Benzene	EPA-8021	ND(<50)	UG/L	9/14/2008	DLC
Toluene	EPA-8021	3100	UG/L	9/14/2008	DLC
Ethylbenzene	EPA-8021	470	UG/L	9/14/2008	DLC
Xylenes	EPA-8021	4200	UG/L	9/14/2008	DLC

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY LIGHTLY WEATHERED GASOLINE.

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

NOTE: SAMPLE INTEGRATED USING AVIATION GAS CALIBRATION CURVE DUE TO EARLY VOLATILE RANGE PEAKS TYPICAL OF AN AIR MATRIX.

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Page 2



CLIENT: FARALLON CONSULTING 975 5th AVE. NW SUITE 100 ISSAQUAH, WA 98027

DATE:	9/17/2008
CCIL JOB #:	0809051
DATE RECEIVED:	9/11/2008
WDOE ACCREDITATION #:	C1336

CLIENT CONTACT:PAUL GRABAUCLIENT PROJECT ID:454-001CLIENT SAMPLE ID:9/9/200812:10 MW3-090908CCIL SAMPLE #:-03

DATA RESULTS

ANALYTE	METHOD	RESULTS *	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	9/14/2008	DLC
Benzene	EPA-8021	ND(<1)	UG/L	9/14/2008	DLC
Toluene	EPA-8021	ND(<1)	UG/L	9/14/2008	DLC
Ethylbenzene	EPA-8021	ND(<1)	UG/L	9/14/2008	DLC
Xylenes	EPA-8021	ND(<3)	UG/L	9/14/2008	DLC

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

NOTE: SAMPLE INTEGRATED USING AVIATION GAS CALIBRATION CURVE DUE TO EARLY VOLATILE RANGE PEAKS TYPICAL OF AN AIR MATRIX.

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Page 3



CLIENT: FARALLON CONSULTING 975 5th AVE. NW SUITE 100 ISSAQUAH, WA 98027

DATE:	9/17/2008
CCIL JOB #:	0809051
DATE RECEIVED:	9/11/2008
WDOE ACCREDITATION #:	C1336

CLIENT CONTACT:PAUL GRABAUCLIENT PROJECT ID:454-001CLIENT SAMPLE ID:9/9/200813:34 MW4-090908CCIL SAMPLE #:-04

DATA RESULTS

ANALYTE	METHOD	RESULTS *	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	120000	UG/L	9/14/2008	DLC
Benzene	EPA-8021	150	UG/L	9/14/2008	DLC
Toluene	EPA-8021	40000	UG/L	9/15/2008	DLC
Ethylbenzene	EPA-8021	2000	UG/L	9/14/2008	DLC
Xylenes	EPA-8021	11000	UG/L	9/14/2008	DLC

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY LIGHTLY WEATHERED GASOLINE.

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

NOTE: SAMPLE INTEGRATED USING AVIATION GAS CALIBRATION CURVE DUE TO EARLY VOLATILE RANGE PEAKS TYPICAL OF AN AIR MATRIX.

Por Bagun



CLIENT: FARALLON CONSULTING 975 5th AVE. NW SUITE 100 ISSAQUAH, WA 98027

DATE:	9/17/2008
CCIL JOB #:	0809051
DATE RECEIVED:	9/11/2008
WDOE ACCREDITATION #:	C1336

CLIENT CONTACT:PAUL GRABAUCLIENT PROJECT ID:454-001CLIENT SAMPLE ID:9/9/200815:50 MW6-090908CCIL SAMPLE #:-05

DATA RESULTS

ANALYTE	METHOD	RESULTS *	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	42000	UG/L	9/14/2008	DLC
Benzene	EPA-8021	450	UG/L	9/14/2008	DLC
Toluene	EPA-8021	8500	UG/L	9/14/2008	DLC
Ethylbenzene	EPA-8021	1300	UG/L	9/14/2008	DLC
Xylenes	EPA-8021	7800	UG/L	9/14/2008	DLC

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY LIGHTLY WEATHERED GASOLINE.

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

NOTE: SAMPLE INTEGRATED USING AVIATION GAS CALIBRATION CURVE DUE TO EARLY VOLATILE RANGE PEAKS TYPICAL OF AN AIR MATRIX.

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Page 5



CLIENT: FARALLON CONSULTING 975 5th AVE. NW SUITE 100 ISSAQUAH, WA 98027

DATE:	9/17/2008
CCIL JOB #:	0809051
DATE RECEIVED:	9/11/2008
WDOE ACCREDITATION #:	C1336

CLIENT CONTACT:PAUL GRABAUCLIENT PROJECT ID:454-001CLIENT SAMPLE ID:9/9/200818:00 MW8-090908CCIL SAMPLE #:-06

DATA RESULTS

ANALYTE	METHOD	RESULTS *	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	34000	UG/L	9/14/2008	DLC
Benzene	EPA-8021	ND(<50)	UG/L	9/14/2008	DLC
Toluene	EPA-8021	3500	UG/L	9/14/2008	DLC
Ethylbenzene	EPA-8021	670	UG/L	9/14/2008	DLC
Xylenes	EPA-8021	6700	UG/L	9/14/2008	DLC

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY LIGHTLY WEATHERED GASOLINE.

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

NOTE: SAMPLE INTEGRATED USING AVIATION GAS CALIBRATION CURVE DUE TO EARLY VOLATILE RANGE PEAKS TYPICAL OF AN AIR MATRIX.

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CLIENT: FARALLON CONSULTING 975 5th AVE. NW SUITE 100 ISSAQUAH, WA 98027

DATE:	9/17/2008
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DATE RECEIVED:	9/11/2008
WDOE ACCREDITATION #:	C1336

CLIENT CONTACT:PAUL GRABAUCLIENT PROJECT ID:454-001CLIENT SAMPLE ID:9/9/200819:15 INFLUENT-090908CCIL SAMPLE #:-07

DATA RESULTS

ANALYTE	METHOD	RESULTS *	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	220	UG/L	9/11/2008	DLC
Benzene	EPA-8021	2	UG/L	9/11/2008	DLC
Toluene	EPA-8021	2	UG/L	9/11/2008	DLC
Ethylbenzene	EPA-8021	2	UG/L	9/11/2008	DLC
Xylenes	EPA-8021	7	UG/L	9/11/2008	DLC

* "ND" INDICATES ANALYZE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

NOTE: SAMPLE INTEGRATED USING AVIATION GAS CALIBRATION CURVE DUE TO EARLY VOLATILE RANGE PEAKS TYPICAL OF AN AIR MATRIX.

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DATE RECEIVED:	9/11/2008
WDOE ACCREDITATION #:	C1336

CLIENT CONTACT:PAUL GRABAUCLIENT PROJECT ID:454-001CLIENT SAMPLE ID:9/9/200816:00 QA/QC-1-090908CCIL SAMPLE #:-08

DATA RESULTS

ANALYTE	METHOD	RESULTS *	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	120000	UG/L	9/14/2008	DLC
Benzene	EPA-8021	150	UG/L	9/14/2008	DLC
Toluene	EPA-8021	43000	UG/L	9/15/2008	DLC
Ethylbenzene	EPA-8021	1900	UG/L	9/14/2008	DLC
Xylenes	EPA-8021	11000	UG/L	9/14/2008	DLC

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY LIGHTLY WEATHERED GASOLINE.

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NOTE: SAMPLE INTEGRATED USING AVIATION GAS CALIBRATION CURVE DUE TO EARLY VOLATILE RANGE PEAKS TYPICAL OF AN AIR MATRIX.

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DATE:	9/17/2008
CCIL JOB #:	0809051
DATE RECEIVED:	9/11/2008
WDOE ACCREDITATION #:	C1336

CLIENT CONTACT: PAUL GRABAU CLIENT PROJECT ID: 454-001

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID		METHOD	SUR ID	% RECV
0809051-01		NWTPH-GX	TFT	77
0809051-01		EPA-8021	TFT	93
0809051-02		NWTPH-GX	TFT	88
0809051-02		EPA-8021	TFT	96
0809051-03		NWTPH-GX	TFT	85
0809051-03		EPA-8021	TFT	102
0809051-04		NWTPH-GX	TFT	87
0809051-04		EPA-8021	TFT	100
0809051-04	DILUTION	EPA-8021	TFT	79
0809051-05		NWTPH-GX	TFT	96
0809051-05		EPA-8021	TFT	104
0809051-06		NWTPH-GX	TFT	93
0809051-06		EPA-8021	TFT	104
0809051-07		NWTPH-GX	TFT	102
0809051-07		EPA-8021	TFT	100
0809051-08		NWTPH-GX	TFT	87
0809051-08		EPA-8021	TFT	99
0809051-08	DILUTION	EPA-8021	TFT	90



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WDOE ACCREDITATION #:	C1336

CLIENT CONTACT: PAUL GRABAU CLIENT PROJECT ID: 454-001

QUALITY CONTROL RESULTS

BLANK RESULTS

METHOD	MATRIX	QC BATCH ID	ASSOCIATED SAMPLES	ANALYTE	RESULT	UNITS
NWTPH-GX	Gas	GA091008	0809051-07	TPH-Volatile Range	ND(<50)	UG/L
EPA-8021	Gas	GA091008	0809051-07	Benzene	ND(<1)	UG/L
EPA-8021	Gas	GA091008	0809051-07	Toluene	ND(<1)	UG/L
EPA-8021	Gas	GA091008	0809051-07	Ethylbenzene	ND(<1)	UG/L
EPA-8021	Gas	GA091008	0809051-07	Xylenes	ND(<3)	UG/L
NWTPH-GX	Water	GW091208)809051-01TO 06, 08	TPH-Volatile Range	ND(<50)	UG/L
EPA-8021	Water	GW091208)809051-01TO 06, 08	Benzene	ND(<1)	UG/L
EPA-8021	Water	GW091208)809051-01TO 06, 08	Toluene	ND(<1)	UG/L
EPA-8021	Water	GW091208)809051-01TO 06, 08	Ethylbenzene	ND(<1)	UG/L
EPA-8021	Water	GW091208)809051-01TO 06, 0{	Xylenes	ND(<3)	UG/L



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WDOE ACCREDITATION #:	C1336

CLIENT CONTACT: PAUL GRABAU CLIENT PROJECT ID: 454-001

QUALITY CONTROL RESULTS

SPIKE/SPIKE DUPLICATE RESULTS

METHOD	MATRIX	QC BATCH ID	ASSOCIATED SAMPLES	ANALYTE	SPIKE RECOVERY	SPIKE DUP RECOVERY	RPD
NWTPH-GX	Gas	GA091008	0809051-07	TPH-Volatile Range	99 %	104 %	5
EPA-8021	Gas	GA091008	0809051-07	Benzene	111 %	117 %	5
EPA-8021	Gas	GA091008	0809051-07	Toluene	108 %	114 %	5
EPA-8021	Gas	GA091008	0809051-07	Ethylbenzene	98 %	104 %	6
EPA-8021	Gas	GA091008	0809051-07	Xylenes	105 %	111 %	6
NWTPH-GX	Water	GW091208	0809051-01TO 06, 08	TPH-Volatile Range	84 %	79 %	6
EPA-8021	Water	GW091208	0809051-01TO 06, 08	Benzene	95 %	96 %	1
EPA-8021	Water	GW091208	0809051-01TO 06, 08	Toluene	95 %	96 %	1
EPA-8021	Water	GW091208	0809051-01TO 06, 08	Ethylbenzene	93 %	93 %	0
EPA-8021	Water	GW091208	0809051-01TO 06, 08	Xylenes	96 %	96 %	0

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* Turnaround request less than standard may incur Rush Charges



CLIENT: FARALLON CONSULTING 975 5th AVE. NW SUITE 100 ISSAQUAH, WA 98027
 DATE:
 10/28/2008

 CCIL JOB #:
 0810124

 DATE RECEIVED:
 10/21/2008

 WDOE ACCREDITATION #:
 C1336

CLIENT CONTACT:PAUL GRABAUCLIENT PROJECT ID:WHIDBEY MARINE & AUTOCLIENT SAMPLE ID:10/21/2008 12:36 INFLUENT-102108CCIL SAMPLE #:-01

DATA RESULTS

ANALYTE	METHOD	RESULTS *	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	170	UG/L	10/22/2008	DLC
Benzene	EPA-8021	1	UG/L	10/22/2008	DLC
Toluene	EPA-8021	2	UG/L	10/22/2008	DLC
Ethylbenzene	EPA-8021	2	UG/L	10/22/2008	DLC
Xylenes	EPA-8021	12	UG/L	10/22/2008	DLC

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 WDOE ACCREDITATION #:
 C1336

CLIENT CONTACT: PAUL GRABAU CLIENT PROJECT ID: WHIDBEY MARINE & AUTO

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0810124-01 0810124-01	NWTPH-GX	TFT TFT	101
0810124-01	EPA-8021	IFI	100



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CLIENT CONTACT: PAUL GRABAU CLIENT PROJECT ID: WHIDBEY MARINE & AUTO

QUALITY CONTROL RESULTS

BLANK RESULTS

METHOD	MATRIX	QC BATCH ID	ASSOCIATED SAMPLES	ANALYTE	RESULT	UNITS
NWTPH-GX	Gas	GA102208	0810124-01	TPH-Volatile Range	ND(<50)	UG/L
EPA-8021	Gas	GA102208	0810124-01	Benzene	ND(<1)	UG/L
EPA-8021	Gas	GA102208	0810124-01	Toluene	ND(<1)	UG/L
EPA-8021	Gas	GA102208	0810124-01	Ethylbenzene	ND(<1)	UG/L
EPA-8021	Gas	GA102208	0810124-01	Xylenes	ND(<3)	UG/L



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CLIENT CONTACT: PAUL GRABAU CLIENT PROJECT ID: WHIDBEY MARINE & AUTO

QUALITY CONTROL RESULTS

BLANK SPIKE/BLANK SPIKE DUPLICATE RESULTS

METHOD	MATRIX	QC BATCH ID	ASSOCIATED SAMPLES	ANALYTE	BLANK SPIKE RECOVERY	BLANK SPIKE DUP RECOVERY	RPD
NWTPH-GX	Gas	GA102208	0810124-01	TPH-Volatile Range	108 %	97 %	11
EPA-8021	Gas	GA102208	0810124-01	Benzene	105 %	100 %	5
EPA-8021	Gas	GA102208	0810124-01	Toluene	101 %	97 %	4
EPA-8021	Gas	GA102208	0810124-01	Ethylbenzene	99 %	95 %	4
EPA-8021	Gas	GA102208	0810124-01	Xylenes	103 %	98 %	5

APPROVED BY:

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