FARALLON CONSULTING, L.L.C.
Cornwall Plaza Building
1201 Cornwall Avenue, Suite 105
Bellingham, Washington 98225

Phone
(360) 527-0241

Fax
(360) 527-0243

T E C H N I C A L M E M O R A N D U M

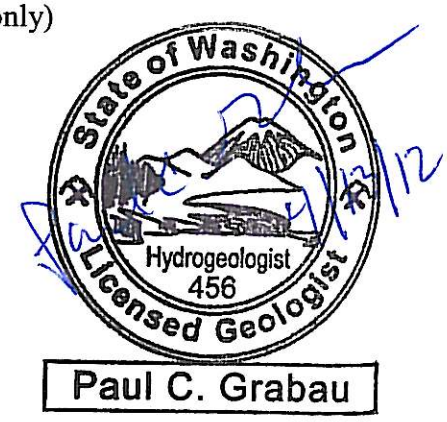
TO: Mark Adams, L.H.G. – Washington State Department of Ecology

cc: Marty Winn, Former Property Owner
William Joyce, Salter Joyce Ziker, P.L.L.C. (email only)
Carol Lybeer, Colony Specialty (email only)
David Campbell, Current Property Owner

FROM: Paul Grabau, L.H.G., Principal Hydrogeologist

DATE: April 13, 2012

RE: **APRIL 2012 PROGRESS REPORT**
WHIDBEY MARINE & AUTO SUPPLY SITE
FREELAND, WASHINGTON
FARALLON PN: 454-001



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 former Whidbey Marine & Auto Supply facility at 1689 Main Street in Freeland, Washington (herein referred to as the Site) (Figure 1). The cleanup action at the Site is being conducted under the Washington State Department of Ecology (Ecology) Voluntary Cleanup Program and in accordance with the provisions of the Washington State Model Toxics Control Act Cleanup Regulation (MTCA), as established in Chapter 173-340 of the Washington Administrative Code. The Site has been assigned Toxics Cleanup Program Identification Number NW1529 by Ecology. The Site has been registered with the Ecology Underground Injection Control (UIC) Program as UIC Site Number 31045. This progress report presents the results of the groundwater monitoring activities conducted at the Site in November 2011 and a summary of well jetting activities that were conducted in October 2011 to mitigate well fouling associated with the in situ chemical oxidant injection that was completed in May 2011 (Farallon 2011). A screening level Tier I vapor intrusion assessment is also provided below.

MONITORING WELL JETTING

During the May 2011 monitoring event, flocculent was observed in groundwater in monitoring well MW-4 as a result of the oxidant injection activities that were conducted during the period from February through April 2011. In addition, dedicated sample tubing that had been placed in monitoring well MW-2 prior to the injection activities was lodged in the well as a result of intrusion of injected materials through the screened section of the well which had solidified. ORC-A, one of the two products that were injected into the groundwater, contains calcium hydroxide and has cement-like qualities once it has set up. The strongly basic calcium hydroxide also elevated the pH of the groundwater in monitoring wells MW-2 and MW-4, as discussed further below. Farallon retained Cascade Drilling LP (Cascade) of Woodinville, Washington to remove the accumulated material from within these wells. On October 20, 2011 Cascade jetted the inside of the well casing and screened sections of monitoring wells MW-2 and MW-4 using potable water and a jetting tool with pressure washer tips on opposing sides of a pipe lowered into the wells. Approximately 25 gallons of water was recovered from the two monitoring wells during the jetting process using a submersible pump and placed in a drum. Monitoring well MW-4 was successfully cleaned by the jetting operation. Cascade was unable to jet out the solidified material present in the bottom of monitoring well MW-2.

GROUNDWATER MONITORING

A Site-wide groundwater monitoring and sampling event was conducted on November 17 and 18, 2011. Groundwater samples were collected from monitoring wells MW-1 through MW-4, MW-6, and MW-8 through MW-12 (Figure 2). Monitoring wells MW-1 through MW-8 are installed in the perched groundwater zone at the Site. Monitoring wells MW-9 through MW-12 are installed within the deeper sea level aquifer. There was an insufficient volume of groundwater present in monitoring well MW-7 for collection of a representative sample during the November 2011 monitoring event and monitoring well MW-5 was dry. Dedicated sample tubing which had been previously placed in monitoring well MW-2 could not be removed during the November 2011 sampling event and the resulting obstruction in the well casing prevented sampling using a bladder pump. Therefore, monitoring well MW-2 was sampled with a dedicated polyethylene bailer. The other monitoring wells were sampled using a bladder pump and dedicated tubing. Details of the field activities and the results for the November 2011 monitoring and sampling events are presented below.

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 measurement. 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.

During the November 2011 monitoring event groundwater was purged from the monitoring wells sampled with the bladder pump at a flow rate of approximately 200 milliliters per minute, where

feasible. Monitoring well MW-2 was sampled using a dedicated disposable bailer using the procedures described below. Field measurements were collected for pH, temperature, specific conductivity, dissolved oxygen, and oxidation/reduction potential 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 defined as a relative percent difference of less than 3 percent for temperature and conductivity, and a change of $\pm$0.1 pH unit between readings for three consecutive measurements. The samples from monitoring wells sampled with the bladder pump were collected by pumping groundwater directly from each well through dedicated polyethylene tubing into laboratory-prepared containers. Monitoring well MW-2 was sampled using a dedicated disposable bailer. A minimum of three submerged casing volumes of water was purged from monitoring well MW-2 prior to sample collection. Groundwater samples were collected from monitoring well MW-2 by decanting the groundwater directly from the disposable bailer into laboratory-prepared containers. The samples were labeled, placed on ice, and transported to ALS Laboratories in Everett, Washington for analysis following chain-of-custody protocols.

ANALYTICAL METHODS

The groundwater samples were analyzed for the presence of 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.

GROUNDWATER MONITORING RESULTS

Table 1 presents a summary of the groundwater elevation data for the Site. Table 2 presents the groundwater analytical results for GRO and BTEX for November 2011 and previous quarterly monitoring events conducted at the Site. A copy of the laboratory analytical report for the November 2011 groundwater monitoring event is provided as Attachment A.

Groundwater Elevation

Groundwater elevations measured at the Site on November 17, 2011 in the perched groundwater zone ranged from 66.47 feet above mean sea level (msl) in monitoring well MW-1 to 58.10 feet above msl in monitoring well MW-7. Groundwater elevation contours for the perched groundwater zone based on the water levels measured on November 17, 2011 are shown on Figure 3. Monitoring well MW-5 has been dry each time it has been monitored since it was installed in February 2007. As shown on Figure 3, the general groundwater flow direction in the perched groundwater zone at the Site is to the west, with a hydraulic gradient of approximately 0.03 foot per foot in the eastern area of the Site and a considerably steeper gradient of 0.22 foot per foot to the west. The groundwater flow direction and gradient are consistent with previous results for the Site.

The depth to water in the monitoring wells installed in the sea level aquifer could not be measured during the November 2011 monitoring event because the length of the tape on the water level meter used was 100 feet and could not reach the water surface in the wells. The depth to water in the sea level aquifer has ranged from about 100 to 104 feet below the ground

surface in previous monitoring events with a flow direction in the vicinity of the Site to the south-southeast with a hydraulic gradient ranging from 0.002 to 0.006 foot per foot.

Analytical Results

The analytical results identified the presence of GRO and one or more of the BTEX constituents at concentrations exceeding their respective MTCA Method A cleanup levels in the groundwater samples collected during the November 2011 monitoring event (Table 2). A general discussion of comparative trends in contaminant concentrations between the May and November 2011 monitoring events is presented below by water-bearing zone and monitoring well.

Perched Zone Monitoring Wells

- Monitoring well MW-1. Neither GRO nor any BTEX constituents have been detected in groundwater samples from monitoring well MW-1 at concentrations exceeding MTCA Method A cleanup levels since January 2007. Monitoring well MW-1 is located up-gradient of the injection area. The prior operation of the soil vapor extraction system at the Site appears to have successfully reduced the contaminant mass flux from vadose zone soil to groundwater in the area of monitoring well MW-1.
- Monitoring well MW-2. GRO and BTEX concentrations in groundwater samples collected from monitoring well MW-2 decreased between the March and November 2011 monitoring events to less than the MTCA Method A cleanup levels. A groundwater sample could not be obtained from the monitoring well during the May 2011 monitoring event. It is possible that the jetting activities had a short-term effect on the GRO and BTEX concentrations in the groundwater samples collected from monitoring well MW-2 but any dilution that may have occurred should dissipate in future monitoring events. The calcium hydroxide in the injected ORC-A product resulted in elevated pH readings of up to 12 pH units in groundwater purged from monitoring well MW-2 prior to sampling in November 2011. With the exception of monitoring well MW-4, the pH of groundwater measured in purge water from the other Site monitoring wells was essentially neutral ranging from 6.5 to about 8 pH units.
- Monitoring well MW-3. Neither GRO nor any BTEX constituents have been detected in groundwater samples collected from monitoring well MW-3 at concentrations exceeding the laboratory reporting limits or MTCA Method A cleanup levels since the well was installed in 2005. This monitoring well is also located up-gradient of the injection area.
- Monitoring well MW-4. The concentration of GRO detected in the groundwater samples collected from monitoring well MW-4 decreased by over an order of magnitude between the May and November 2011 monitoring events. In addition, the concentration of ethylbenzene and xylenes decreased to less than the MTCA Method A cleanup levels between the May and November 2011 monitoring events and the concentrations of benzene and toluene remained less than the MTCA Method A

cleanup levels. It is possible that the jetting activities had a short term effect on the GRO and BTEX concentrations in the groundwater samples collected from monitoring well MW-4 but any dilution that may have occurred should dissipate in future monitoring events. Elevated readings of up to 13 pH units were measured in groundwater purged from monitoring well MW-4 prior to sampling.

- Monitoring well MW-6. GRO, ethylbenzene, and xylenes concentrations detected in groundwater samples collected from monitoring well MW-6 decreased between the May and November 2011 groundwater monitoring events. However, the toluene concentration increased from less than to exceeding the MTCA Method A cleanup level.
- Monitoring well MW-8. GRO, ethylbenzene, and xylenes concentrations detected in groundwater samples collected from monitoring well MW-8 increased between the May and November 2011 groundwater monitoring events in groundwater samples collected from monitoring well MW-8.

Sea Level Aquifer Monitoring Wells

- Monitoring well MW-9. GRO and BTEX concentrations detected in groundwater samples collected from monitoring well MW-9 were similar during the May and November 2011 groundwater monitoring events. The highest concentrations of GRO and BTEX at the Site were detected in groundwater samples collected from monitoring well MW-9 during the November 2011 and previous monitoring events.
- Monitoring well MW-10. GRO and BTEX concentrations detected in groundwater samples collected from monitoring well MW-10 remained less than MTCA Method A cleanup levels during the May and November 2011 groundwater monitoring events. None of the constituents analyzed for were detected above the laboratory reporting limits during the November 2011 monitoring event.
- Monitoring well MW-11. GRO and BTEX concentrations detected in groundwater samples collected from monitoring well MW-11 decreased between the May and November 2011 groundwater monitoring events.
- Monitoring well MW-12. GRO and BTEX concentrations detected in groundwater samples collected from monitoring well MW-12 were similar during the May and November 2011 groundwater monitoring events.

VAPOR INTRUSION ASSESSMENT

Farallon conducted a Tier I screening assessment of the vapor intrusion pathway at the Site following the methodology presented in the Ecology draft *Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remediation* dated October 2009 (Ecology 2009) (Draft Vapor Intrusion Guidance). Because there are no residences within 100 feet of the currently defined extent of contamination in groundwater and the Site and adjacent properties are used for commercial business, Farallon modified the MTCA Method B indoor air cleanup levels

in accordance with Section 6.6.2 of the Draft Vapor Intrusion Guidance which describes methods for determining modified indoor air cleanup levels for non-residential, non-industrial buildings that are being used commercially where the most highly exposed receptors are workers. The Draft Vapor Intrusion Guidance allows changes to default inputs found in Equations 750-1 and 750-2 of Section 750 of Chapter 173-340 of the Washington Administrative Code (Equations 750-1 and 750-2) to reflect a commercial exposure scenario. To determine modified MTCA Method B indoor air cleanup levels, the exposure inputs were adjusted to reflect a work place scenario with workers on location for 8 hours per day, 250 days a year for a total of 2,000 working hours per year. The Exposure Frequency factor was therefore changed from 1.0 (unitless) to 0.23 (unitless) to reflect the ratio of 2,000 annual working hours to 8,760 total hours in a year. Further, the Exposure Duration variable was adjusted from 6 years for the non-carcinogen residential exposure scenario (Equation 750-1) and 30 years for the carcinogen residential exposure scenario (Equation 750-2) to 25 years for both scenarios. The Averaging Time factor was adjusted to be equal to the Exposure Duration factors for the non-carcinogen exposure scenario. The Average Body Weight factor for the non-carcinogen exposure scenario was adjusted from the 16 kilogram default for a child to 70 kilograms to reflect exposure to an adult worker. The Breathing Rate factor for the non-carcinogen exposure scenario was also adjusted from 10 cubic meters per day to 20 cubic meters per day to reflect exposure to an adult worker rather than a child. The modified MTCA Method B cleanup levels for indoor air for BTEX constituents are provided in Table 3 along with the input parameters used in Equations 750-1 and 750-2 to modify the cleanup levels for a commercial exposure scenario.

To develop groundwater screening levels that would be protective of the migration to indoor air pathway, Farallon followed the Ecology procedures outlined in Table D-2 of Appendix D of the Draft Vapor Intrusion Guidance (Table D-2) for use of the Johnson and Ettinger vapor intrusion model (JEM) (EPA 2011) for Ecology cleanup sites. Table D-2 provides the procedures for use of the JEM to develop a groundwater to indoor air attenuation factor which can then be applied to predict a groundwater concentration for volatile organic compounds that would be protective of indoor air based on a MTCA Method B or C indoor air cleanup level. For the Site-specific assessment, Farallon used the Modified MTCA Method B cleanup levels that were developed for BTEX constituents for a commercial exposure scenario. Site-specific inputs used for the JEM assessment included default chemical-specific inputs from the JEM for each of the BTEX constituents, average depth to groundwater for the perched groundwater zone and the sea level aquifer, soil type, building type, and average groundwater temperature. The Site-specific model inputs included the following:

- Benzene, toluene, ethylbenzene, m-xylene, and o-xylene were assessed as the chemicals of concern;
- Depth to groundwater was assumed to be 55 feet below grade plus or minus 3 feet for the perched groundwater zone and 102 feet below grade plus or minus 2 feet for the sea level aquifer;
- Average groundwater temperature of 52° Fahrenheit;
- Sand as the soil type; and

- A slab-on-grade building type.

The analytical laboratory reported xylenes as m- and p-xylenes combined and o-xylene so the m- and p-xylene results were conservatively assumed to be all m-xylene for the assessment. The Forward Calculation of Indoor Air Concentration version of the JEM (EPA 2011) was run as Step 1 using the assumptions outlined above to derive a groundwater to indoor air attenuation factor and a best estimate indoor air concentration prediction at a given groundwater concentration for each BTEX constituent. The groundwater concentration that would be protective of the MTCA Method B or Modified MTCA Method B indoor air cleanup level was then calculated based on the groundwater to indoor air attenuation factor following the procedures outlined in Table D-2 based on the following equation:

$$INPUT_1 = (CUL \times INPUT_0) / IAP$$

WHERE:

$INPUT_1$ = Groundwater concentration corresponding to a predicted indoor air concentration equal to the MTCA Method B or Modified Method B indoor air cleanup level

CUL = MTCA Method B or Modified Method B indoor air cleanup level

$INPUT_0$ = Groundwater concentration used to develop groundwater to indoor air attenuation factor in Step 1.

IAP = Predicted indoor air concentration from Step 1

The input variables used to determine the groundwater concentrations that would be protective of the MTCA Method B or Modified Method B indoor air cleanup level for each of the BTEX constituents for the perched groundwater zone and sea level aquifer are provided on Tables 4 and 5, respectively.

The concentrations of BTEX constituents detected in groundwater samples collected during the May and November 2011 monitoring events from monitoring wells installed in the perched groundwater zone were all less than the groundwater screening level concentrations that were predicted by the JEM to be protective of the Modified MTCA Method B indoor air cleanup levels that were calculated for a commercial exposure scenario (Table 4). However, the laboratory reporting limit for benzene in the groundwater sample collected from monitoring well MW-8 during the November 2011 monitoring event exceeded the predicted groundwater screening level for protection of the indoor air pathway due to dilutions required for the analyses.

Benzene was the only BTEX constituent that was detected in groundwater samples collected during the May and November 2011monitoring events from monitoring wells installed in the sea level aquifer at concentrations exceeding the groundwater screening level concentrations that were predicted by the JEM to be protective of the Modified MTCA Method B indoor air cleanup levels that were calculated for a commercial exposure scenario (Table 5). The benzene

concentrations detected in groundwater samples collected from monitoring wells MW-9, MW-11, and MW-12 exceeded the predicted groundwater screening level of 57.7 micrograms/liter (µg/l) for protection of the indoor air pathway for the sea level aquifer. The benzene concentrations detected in groundwater samples collected from monitoring wells MW-9, MW-11, and MW-12 during the November 2011 monitoring event ranged from 82 µg/l in monitoring well MW-12 to 19,000 µg/l in monitoring well MW-9.

CLOSING

The expected results of the in situ chemical oxidant injection at the Site include:

- Initial increases in contaminant concentrations in groundwater due to desorption from soil;
- Depletion of the chemical oxidant materials over a period of months depending on groundwater flow rate, the presence natural organic material, and contaminant concentrations; and
- Enhanced bioremediation due to the addition of oxygen and nutrients.

The initial results from the post-injection groundwater monitoring events in May and November 2011 are consistent with the expected results. The jetting of monitoring wells MW-2 and MW-4 complicate the interpretation of the groundwater quality data as some dilution likely occurred as part of the cleaning process. However, the effects of the well jetting activities should dissipate in future monitoring events. The effects of the elevated pH values resulting from the chemical injection in the area of monitoring wells MW-2 and MW-4 further complicates interpretation of the data. Farallon will continue to evaluate the performance of the in situ chemical oxidant injection during future groundwater monitoring events. Additional purging of groundwater from monitoring wells MW-2 and MW-4 is recommended for the next sampling event to minimize the effects of dilution that may have occurred from the well jetting activities.

The Site-specific Tier I vapor intrusion assessment for the perched groundwater zone demonstrates that the concentrations of BTEX in groundwater are protective of the vapor intrusion pathway for a commercial exposure scenario, which is appropriate for the buildings at the Site. The Tier I intrusion assessment for the sea level aquifer indicated that the benzene concentrations detected in groundwater samples collected from monitoring wells MW-9, MW-11, and MW-12 exceeded the predicted groundwater screening level for protection of the indoor air pathway for the sea level aquifer. However, the assumptions used for the JEM simulation used the conservative and simplified assumption that all of the soil between the sea level aquifer and the ground surface is sand. The screening level model does not account for the presence of the perched saturated zone or interbedded silt layers beneath the silt zone which should limit the upward migration of BTEX vapors from the sea level aquifer and decrease the potential for vapor intrusion into buildings at the Site.

Farallon is currently evaluating potential additional cleanup measures for the Site including expansion of the soil vapor extraction system which could mitigate the potential intrusion of

vapors into buildings at or near the Site. Once the evaluation of potential additional cleanup measures is completed, Farallon anticipates meeting with Ecology to discuss future actions at the Site. Groundwater monitoring will be conducted at the Site on a semi-annual basis in the spring and fall to evaluate potential seasonal variations in contaminant trends.

REFERENCES

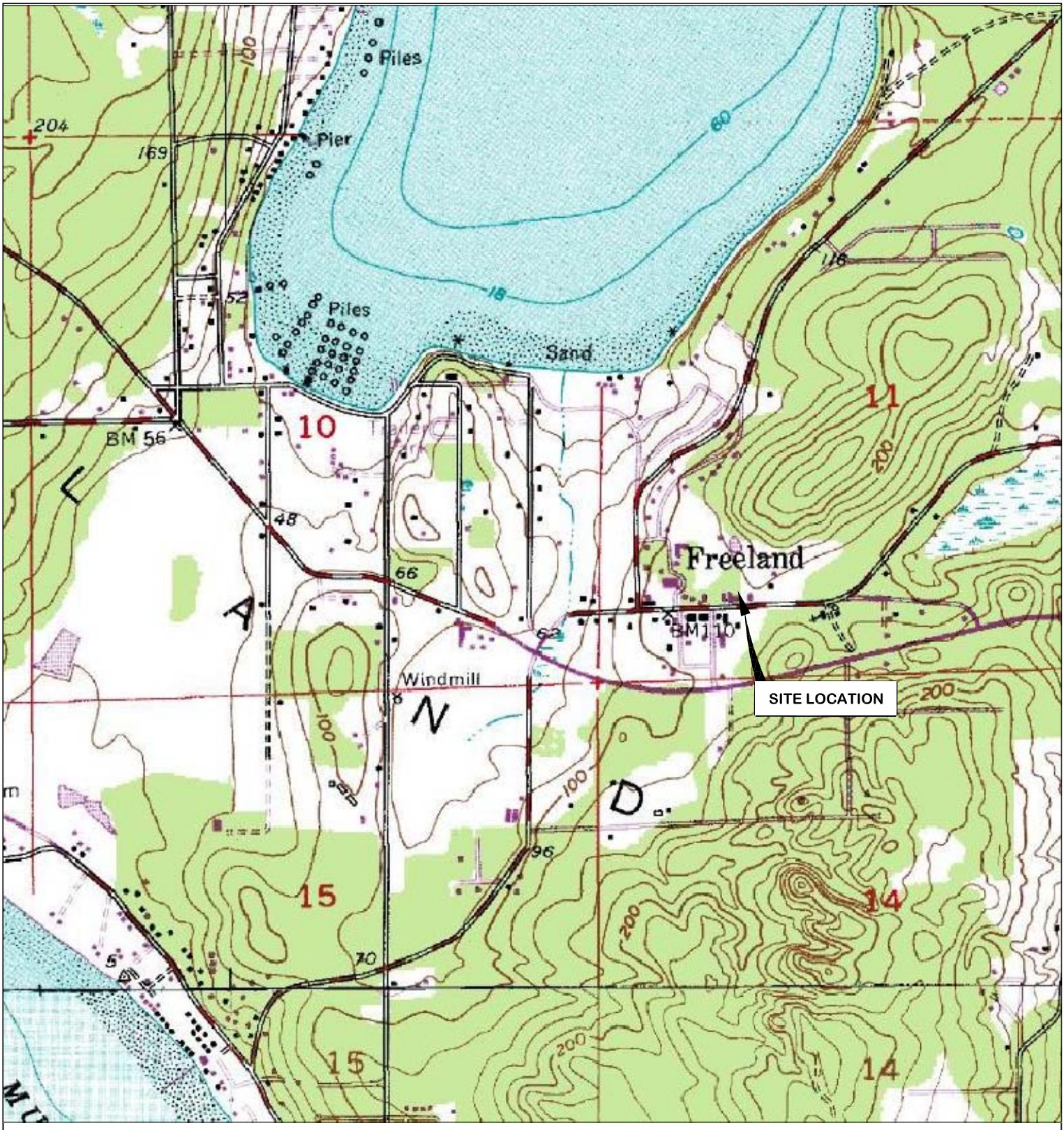
Farallon Consulting, L.L.C. (Farallon). 2011. Technical Memorandum Regarding June 2011 Progress Report. From Paul Grabau, L.H.G., Principal Hydrogeologist. To Mark Adams, L.H.G. – Washington State Department of Ecology. September 14.

Washington State Department of Ecology (Ecology). 2009. *Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remediation*, DRAFT. Publication No. 09-09-047. October.

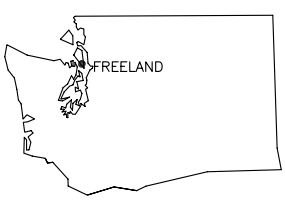
U.S. Environmental Protection Agency (EPA). "Screening Level Implementation of the Johnson and Ettinger Vapor Intrusion Model with two variable/uncertain parameters (source depth/moisture content). Forward Calculation of Indoor Air Concentration." EPA On-line Tools for Site Assessment Calculation. November 30, 2011. http://www.epa.gov/athens/learn2model/part-two/onsite/JnE_lite_forward.html. (December 13, 2011.)

Attachments: Figure 1, *Site Vicinity Map*
Figure 2, *Site Plan*
Figure 3, *Groundwater Elevation Contours - Perched Groundwater Zone – November 17, 2011*
Table 1, *Groundwater Elevation Data*
Table 2, *Summary of Laboratory Results for GRO and BTEX in Groundwater Samples*
Table 3, *MTCA Method B and Modified Method B Air Cleanup Level Calculations*
Table 4, *Johnson and Ettinger Screening Level Model Results-Perched Groundwater Zone*
Table 5, *Johnson and Ettinger Screening Level Model Results-Sea Level Aquifer*
Attachment A, Laboratory Analytical Report

PG:bw



REFERENCE: 7.5 MINUTE USGS QUADRANGLE FREELAND, WASHINGTON. DATED 1993



FARALLON CONSULTING
975 5th Avenue Northwest
Issaquah, WA 98027

FIGURE 1

SITE VICINITY MAP
WHIDBEY MARINE & AUTO SUPPLY
1689 MAIN STREET
FREELAND, WASHINGTON

FARALLON PN: 454-001

Drawn By: DEW	Checked By: PJ	Date: 7/11/07	Disk Reference: 454001

SOUTH HARBOR AVENUE

OFFICE BUILDING

OFFICE BUILDING

REMEDIATION SYSTEM COMPOUND

DRAIN FIELD

GARAGE

GRAVEL

COVER

SEPTIC TANK

MW-3

CONCRETE

DRIVEWAY

STORE

COVER
(OVER CONCRETE)

VENT PIPES

PUMP SHUT OFF

MW-5

MW-8

MW-2

CANOPY

TANK 1
3,000-GAL

SVE-2S

MW-6

PUMPS

ASPHALT

SVE-4

AS-3

SVE-2D

TANK 4
8,000-GAL

TANK 3
10,000-GAL

TANK 2
10,000-GAL

MW-4

ASPHALT

SVE-3

CONCRETE

ASPHALT

MW-11

MW-9

MW-7

SIGN

PLANTER

PROPANE

PLANTER

MW-1

MW-10

PLANTER

STORM DRAIN

1/2"Ø x 12" STEEL REBAR AT
END OF AIR SPARGE LINE TO
PROVIDE MAGNETIC LOCATION

MAIN STREET

MW-12

LEGEND

- PERCHED ZONE MONITORING WELL
- SEA LEVEL AQUIFER MONITORING WELL
- AS-1 AIR SPARGE WELL
- SVE-2S SOIL VAPOR EXTRACTION WELL
- 2011 CHEMICAL OXIDANT INJECTION POINT
- FACILITY BOUNDARY
- SOIL VAPOR EXTRACTION LINE
- AIR SPARGE LINE
- FUEL LINE
- TELEPHONE LINE
- WATER LINE
- POWER LINE
- OVERHEAD POWER LINE
- UNDERGROUND STORAGE TANK
- TREE

0 30

APPROXIMATE SCALE IN FEET

FARALLON CONSULTING
975 5th Avenue Northwest
Issaquah, WA 98027

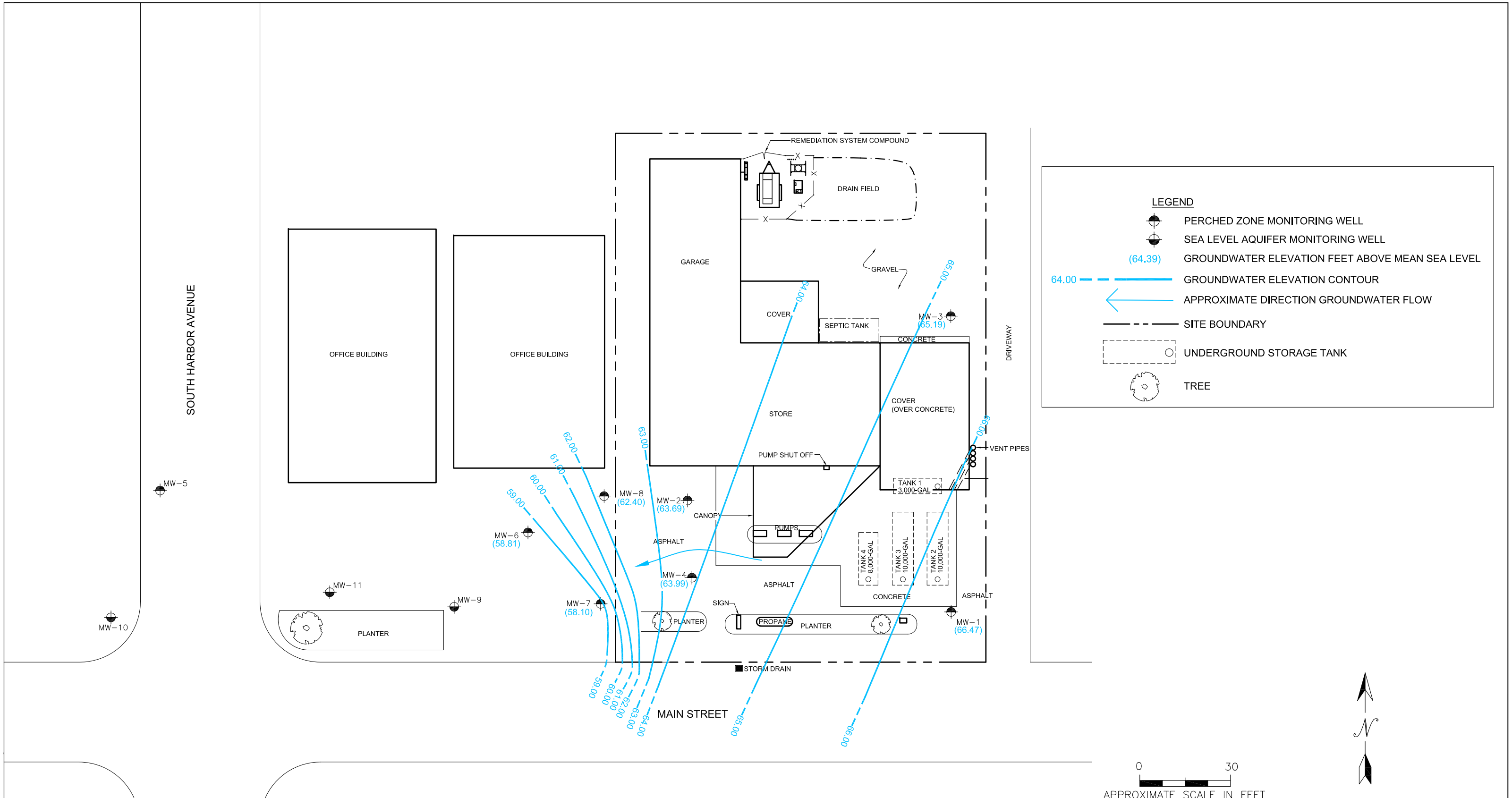
FIGURE 2

SITE PLAN
WHIDBEY MARINE & AUTO SUPPLY
1689 MAIN STREET
FREELAND, WASHINGTON

FARALLON PN: 454-001

Drawn By: DEW	Checked By: TM	Date:2/7/12	Disk Reference: 454001

P:\Projects\454001 Whidbey Marine & Auto\Drawings_Plots\454-001.dwg, 2/9/2012 1:04:33 PM



FARALLON CONSULTING
975 5th Avenue Northwest
Issaquah, WA 98027

FIGURE 3

GROUNDWATER ELEVATION CONTOURS
PERCHED GROUNDWATER ZONE
NOVEMBER 17, 2011
WHIDBEY MARINE & AUTO SUPPLY
FREELAND, WASHINGTON

FARALLON PN: 454-001

Drawn By: DEW	Checked By: PG	Date: 1/31/11	Disk Reference: 454001

Table 1
Groundwater Elevation Data
Whidbey Marine & Auto Supply
Freeland, Washington
Farallon PN: 454-001

Well Identification	Date	Top of Well Casing Elevation (feet)[1]	Depth to Water (feet)[2]	Groundwater Elevation (feet)[1]
MW-1[3]	12/5/05	116.64	52.54	64.10
	6/7/06	116.45	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
	6/19/07		51.66	64.79
	12/7/07		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
	1/15/09		51.63	64.82
	5/12/09		51.29	65.16
	8/5/09		51.46	64.99
	2/10/10		51.13	65.32
	10/21/10		51.28	65.17
	5/18/11		50.20	66.25
	11/17/11		49.98	66.47
MW-2	12/5/05	117.49	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
	6/19/07		54.50	62.99
	12/7/07		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
	1/15/09		54.40	63.09
	5/12/09		54.08	63.41
	8/5/09		54.19	63.30
	2/10/10		53.92	63.57
	10/21/10		54.11	63.38
	5/18/11		53.22	64.27
	11/17/11		53.80	63.69

Table 1
Groundwater Elevation Data
Whidbey Marine & Auto Supply
Freeland, Washington
Farallon PN: 454-001

Well Identification	Date	Top of Well Casing Elevation (feet)[1]	Depth to Water (feet)[2]	Groundwater Elevation (feet)[1]
MW-3	12/5/05	117.47	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
	6/19/07		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
	1/15/09		53.01	64.46
	5/12/09		52.64	64.83
	8/5/09		52.79	64.68
	2/10/10		52.50	64.97
	10/21/10		52.63	64.84
	5/18/11		51.63	65.84
	11/17/11		52.28	65.19
MW-4	3/27/07	117.27	53.94	63.33
	6/19/07		54.02	63.25
	12/7/07		54.28	62.99
	4/17/08		53.58	63.69
	6/30/08		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
	1/15/09		53.88	63.39
	5/12/09		53.50	63.77
	8/5/09		53.65	63.62
	2/10/10		53.44	63.83
	10/21/10		53.58	63.69
	5/18/11		52.76	64.51
	11/17/11		53.28	63.99

Table 1
Groundwater Elevation Data
Whidbey Marine & Auto Supply
Freeland, Washington
Farallon PN: 454-001

Well Identification	Date	Top of Well Casing Elevation (feet)[1]	Depth to Water (feet)[2]	Groundwater Elevation (feet)[1]
MW-6	4/17/08	116.56	59.84	56.72
	6/30/08		60.07	56.49
	8/14/08		60.26	56.30
	9/9/08		60.35	56.21
MW-6	10/21/08	116.56	60.47	56.09
	1/15/09		60.50	56.06
	5/12/09		60.34	56.22
	8/5/09		60.49	56.07
	2/10/10		59.43	57.13
	10/21/10		59.45	57.11
	5/18/11		57.76	58.80
	11/17/11		57.75	58.81
MW-7	4/17/08	116.82	56.98	59.84
	6/30/08		57.42	59.40
	8/14/08		57.87	58.95
	9/9/08		58.25	58.57
	10/21/08		58.34	58.48
	1/15/09		DRY	DRY
	5/12/09		57.43	59.39
	8/5/09		58.32	58.50
	2/10/10		58.24	58.58
	10/21/10		58.30	58.52
	5/18/11		58.05	58.77
	11/17/11		58.72	58.10
MW-8	4/17/08	117.23	55.29	61.94
	6/30/08		55.34	61.89
	8/14/08		55.33	61.90
	9/9/08		55.36	61.87
	10/21/08		55.47	61.76
	1/15/09		55.37	61.86
	5/12/09		55.09	62.14
	8/5/09		55.21	62.02
	2/10/10		54.93	62.30
	10/21/10		55.08	62.15
	5/18/21		54.47	62.76
	11/17/11		54.83	62.40

Table 1
Groundwater Elevation Data
Whidbey Marine & Auto Supply
Freeland, Washington
Farallon PN: 454-001

Well Identification	Date	Top of Well Casing Elevation (feet)[1]	Depth to Water (feet)[2]	Groundwater Elevation (feet)[1]
MW-9	5/12/09	114.79	103.54	11.25
	8/5/09		103.85	10.94
	2/10/10		103.79	11.00
	10/21/10		103.77	11.02
	5/18/11		103.12	11.67
	11/17/11		NM	NM
MW-10	5/12/09	113.45	102.02	11.43
	8/5/09		102.29	11.16
	2/10/10		102.25	11.20
	10/21/10		101.95	11.50
	5/18/11		101.47	11.98
	11/17/11		100.3	13.15
MW-11	5/12/09	114.24	102.82	11.42
	8/5/09		103.09	11.15
	2/10/10		103.09	11.15
	10/21/10		102.82	11.42
	5/18/11		102.31	11.93
	11/17/11		NM	NM
MW-12	5/12/09	114.23	103.96	10.27
	8/5/09		103.24	10.99
	2/10/10		103.36	10.87
	10/21/10		102.90	11.33
	5/18/11		103.37	10.86
	11/17/11		NM	NM

NOTES:

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

[2]Feet below top of well casing.

[3]Top 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 2
Summary of Laboratory Analytical Results for GRO and BTEX in Groundwater Samples
Whidbey Marine & Auto Supply
Freeland, Washington
Farallon PN: 454-001

Sample Location	Sample Identification	Sample Date	Analytical Results (micrograms per liter)				
			GRO[1]	Benzene[2]	Toluene[2]	Ethylbenzene[2]	Xylenes[2]
MW-1	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
	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
	MW1-051409	5/14/09	<50	<1	<1	<1	<3
	MW1-021110	2/11/10	<50	<1	<1	<1	<3
	MW1-102110	10/21/10	<50	<1	<1	<1	<3
	MW1-051811	5/18/11	<50	<1	<1	<1	<3
	MW-1-111711	11/17/11	<50	<1.0	<1.0	<1.0	<3.0
MW-2	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
	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**
	MW2-051309	5/13/09	**4,300**	<5	380	130	**1,100**
	MW2-021110	2/11/10	**15,000**	**<10**	160	590	**3,800**
	MW2-102210	10/22/10	**12,000**	**50**	15	420	**2,400**
	MW2-032111	3/21/11	**7,000**	**<10**	1.9	31	**1,400**
	MW-2-111711	11/17/11	130	<1.0	1.5	1.3	10
MW-3	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
MTCA Method A Cleanup Levels for Groundwater[3]			**800**	**5**	**1,000**	**700**	**1,000**

Table 2
Summary of Laboratory Analytical Results for GRO and BTEX in Groundwater Samples
Whidbey Marine & Auto Supply
Freeland, Washington
Farallon PN: 454-001

Sample Location	Sample Identification	Sample Date	Analytical Results (micrograms per liter)				
			GRO[1]	Benzene[2]	Toluene[2]	Ethylbenzene[2]	Xylenes[2]
MW-3	MW3-010907	1/9/07	<50	<1	<1	<1	<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
	MW3-051409	5/14/09	<50	<1	<1	<1	<3
	MW3-021110	2/11/10	<50	<1	<1	<1	<3
	MW3-102110	10/21/10	<50	<1	<1	<1	<3
	MW3-051811	5/18/11	<50	<1	1.1	<1	<3
	MW-3-111711	11/17/11	<50	<1.0	1.1	<1.0	<3.0
MW-4	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**
	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**
	MW4-051409	5/14/09	**83,000**	**<50**	**30,000**	**1,100**	**6,600**
	MW4-021110	2/11/10	**71,000**	**<50**	**20,000**	**940**	**5,900**
	MW4-102110	10/21/10	**32,000**	**<10**	**4,200**	**1,100**	**6,600**
	MW4-032111	3/21/11	**32,000**	**<10**	160	**870**	**6,900**
	MW4-051811	5/18/11	**33,000**	**<10**	550	**840**	**6,700**
	MW-4-111811	11/18/11	**2,300**	<5.0	20	110	610
MW-6	MW6-041708	4/18/08	**23,000**	**260**	**1,500**	530	**3,600**
	MW6-090908	9/9/08	**42,000**	**450**	**8,500**	**1,300**	**7,800**
	MW6-051409	5/14/09	**17,000**	**29**	**3,200**	250	**3,100**
	MW6-021110	2/11/10	**89,000**	**<100**	**16,000**	**1,800**	**14,000**
	MW6-102210	10/22/10	**39,000**	**<10**	**1,800**	**1,200**	**7,800**
	MW6-032111	3/21/11	**37,000**	**<20**	350	650	**9,200**
	MW6-051811	5/18/11	**49,000**	**<25**	270	690	**11,000**
	MW-6-111711	11/17/11	**22,000**	**<20**	**1,200**	520	**5,400**
MW-7	MW7-041808	4/18/08	**54,000**	**13,000**	**17,000**	420	**3,700**
	MW7-051409	5/14/09	**13,000**	**2,500**	**3,700**	180	**1,700**
MTCA Method A Cleanup Levels for Groundwater[3]			**800**	**5**	**1,000**	**700**	**1,000**

Table 2
Summary of Laboratory Analytical Results for GRO and BTEX in Groundwater Samples
Whidbey Marine & Auto Supply
Freeland, Washington
Farallon PN: 454-001

Sample Location	Sample Identification	Sample Date	Analytical Results (micrograms per liter)				
			GRO[1]	Benzene[2]	Toluene[2]	Ethylbenzene[2]	Xylenes[2]
MW-8	MW8-041808	4/18/08	**5,400**	<1	57	57	890
	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**
	MW8-051309	5/13/09	**60,000**	**<50**	**9,000**	**1,800**	**9,500**
	QA/QC-051309	5/13/09	**57,000**	**<50**	**8,900**	**1,700**	**9,400**
	MW8-021110	2/11/10	**54,000**	**<50**	**3,900**	**2,000**	**12,000**
	MW8-102210	10/22/10	**58,000**	**<10**	770	**2,200**	**15,000**
	MW8-032111	3/21/11	**17,000**	**<10**	<10	600	**2,900**
	MW8-051811	5/18/11	**2,900**	<1	2.3	23	320
	MW-8-111711	11/17/11	**47,000**	**<50**	<50	**1,200**	**12,000**
	DUP-1-111711	11/17/11	**47,000**	**<50**	<50	**1,200**	**12,000**
MW-9	MW9-051309	5/13/09	**94,000**	**18,000**	**32,000**	**1,500**	**7,600**
	MW9-021010	2/10/10	**32,000**	**10,000**	**9,800**	390	**1,800**
	MW9-102210	10/22/10	**160,000**	**15,000**	**42,000**	**2,700**	**14,000**
	MW9-032111	3/21/11	**260,000**	**13,000**	**55,000**	**5,300**	**27,000**
	MW9-051811	5/18/11	**230,000**	**18,000**	**55,000**	**4,000**	**21,000**
	MW-9-111811	11/18/11	**240,000**	**19,000**	**68,000**	**4,400**	**23,000**
MW-10	MW10-051309	5/13/09	<50	<1	2	<1	<3
	MW10-021010	2/10/10	140	<1	3.3	1.5	7.3
	MW10-102210	10/22/10	<50	<1	4.0	<1	3.2
	MW10-051811	5/18/11	69	<1	2.6	<1	<3
	MW-10-111711	11/17/11	<50	<1.0	<1.0	<1.0	<3.0
MW-11	MW11-051309	5/13/09	**2,300**	**500**	530	19	230
	MW11-021010	2/10/10	**23,000**	**4,000**	**7,000**	340	**1,600**
	MW11-102210	10/22/10	**29,000**	**2,400**	**7,400**	**790**	**2,800**
	MW11-051811	5/18/11	**70,000**	**3,100**	**15,000**	**1,500**	**7,200**
	MW-11-111811	11/18/11	**24,000**	**670**	**3,700**	**820**	**3,000**
MW-12	MW12-051309	5/13/09	**55,000**	**200**	**8,900**	**1,700**	**9,700**
	MW12-021010	2/10/10	**52,000**	**92**	**3,900**	**1,300**	**8,400**
	MW12-102210	10/22/10	**81,000**	**120**	**5,300**	**2,100**	**14,000**
	MW12-051811	5/18/11	**69,000**	**83**	**4,400**	**1,700**	**11,000**
	MW-12-111711	11/17/11	**68,000**	**82**	**4,700**	**1,500**	**11,000**
MTCA Method A Cleanup Levels for Groundwater[3]			**800**	**5**	**1,000**	**700**	**1,000**

NOTES:

< denotes analyte not detected at or above the reporting limit listed.

Results in **bold** denote concentrations or laboratory reporting limits above applicable cleanup levels.

BTEX = benzene, toluene, ethylbenzene, and xylenes
GRO = total petroleum hydrocarbons as gasoline-range organics

[1]Analyzed by Northwest Method NWTPH-Gx.

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

[3]Washington State Model Toxics Control Act Cleanup Regulation 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 3
MTCA Method B and Modified Method B Air Cleanup Level Calculations
Whidbey Marine & Auto Supply
Freeland, Washington
Farallon PN: 454-001

Non-carcinogenic Effects

Input Parameters		Units	m-Xylenes		Toluene		Ethylbenzene		Benzene	
			Residential[1]	Commercial[2]	Residential[1]	Commercial[2]	Residential[1]	Commercial[2]	Residential[1]	Commercial[2]
Reference dose	RfD	mg/kg-day	0.029	0.029	1.4	1.4	0.29	0.29	0.0086	0.0086
Average body weight	ABW	kg	16	70	16	70	16	70	16	70
Unit conversion factor	UCF	µg/mg	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Breathing rate	BR	m^3/day	10	20	10	20	10	20	10	20
Inhalation absorption fraction	ABS	unitless	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Hazard quotient	HQ	unitless	1	1	1	1	1	1	1	1
Averaging time	AT	years	6	25	6	25	6	25	6	25
Exposure duration	ED	years	6	25	6	25	6	25	6	25
Exposure frequency	EF	unitless	1.0	0.23	1.0	0.23	1.0	0.23	1.0	0.23
Air Cleanup Level[3]	CUL	µg/m^3	46	435	2,240	21,304	464	4,413	14	131

Carcinogenic Effects

Input Parameters		Units	Benzene	
			Residential[1]	Commercial[2]
Acceptable cancer risk	RISK	unitless	0.000001	0.000001
Average body weight	ABW	kg	70	70
Averaging time	AT	years	75	75
Unit conversion factor	UCF	µg/mg	1,000	1,000
Carcinogenic potency factor	CPF	kg-day/mg	0.027	0.027
Breathing rate	BR	m^3/day	20	20
Inhalation absorption fraction	ABS	unitless	1	1
Exposure duration	ED	years	30	25
Exposure frequency	EF	unitless	1.0	0.23
Air Cleanup Level[4]	CUL	µg/m^3	0.32	1.69

NOTES:

[1] MTCA Method B air cleanup level calculation default assumptions

[2] Average body weight, breathing rate, and exposure assumptions adjusted for commercial exposure scenario

[3] Equation 750-1 of Section 750 of Chapter 173-340 of the Washington Administrative Code:
CUL = (RfD*ABW*UCF*HQ*AT)/(BR*ABS*ED*EF)

[4] Equation 750-2 of Section 750 of Chapter 173-340 of the Washington Administrative Code:
CUL = (RISK*ABW*AT*UCF)/(CPF*BR*ABS*ED*EF)

kg = kilograms
m^3/day = cubic meters per day
mg/kg-day = milligrams per kilogram per day
µg/mg = micrograms per milligram
µg/m^3 = micrograms per cubic meter
MTCA = Washington State Model Toxics Control Act Cleanup Regulation

Table 4
Johnson and Ettinger Screening Level Model Results - Perched Groundwater Zone
Whidbey Marine & Auto Supply Site
Freeland, Washington
Farallon PN: 454-001

Residential Exposure Scenario

Input Parameters		Units	Benzene	Toluene	Ethylbenzene	m-Xylene	o-Xylene
MTCA Method B Indoor Air Cleanup Level[1]	CUL	µg/m^3	0.32	2,200	460	46	46
Predicted J&E Attenuation Factor[2]		unitless	0.0003934	0.0003892	0.0003392	0.0003181	0.0003895
November 2011 Maximum Groundwater Concentration[3]	$INPUT_0$	µg/l	50	1,200	1,200	7,600	4,000
Best Estimate Indoor Air Prediction[4]	IAP	µg/m^3	2.39	62.4	59.4	514.9	440.4
Protective Groundwater Concentration[5, 7]	$INPUT_1$	µg/l	6.689	42,314	9,288	679	418

Commercial Exposure Scenario

Input Parameters		Units	Benzene	Toluene	Ethylbenzene	m-Xylene	o-Xylene
Modified MTCA Method B Indoor Air Cleanup Level[1]	CUL	µg/m^3	1.69	21,304	4,413	435	435
Predicted J&E Attenuation Factor[2]		unitless	0.0003934	0.0003892	0.0003392	0.0003181	0.0003895
November 2011 Maximum Groundwater Concentration[3]	$INPUT_0$	µg/l	50	1,200	1,200	7,600	4,000
Best Estimate Indoor Air Prediction[4]	IAP	µg/m^3	2.39	62.4	59.4	326.1	146.8
Protective Groundwater Concentration[6, 7]	$INPUT_1$	µg/l	35.3	409,765	89,107	10,133	11,847

NOTES:

[1] lesser of carcinogen or noncarcinogen cleanup level

[2] Johnson and Ettinger model simulation groundwater to indoor air attenuation factor

[3] October 2010 result used for benzene which was not detected above laboratory reporting limits in groundwater samples collected during November 2011 monitoring event

[4] at November 2011 concentrations

[5] at MTCA Method B indoor air cleanup level

[6] at Modified MTCA Method B indoor air cleanup level

[7] $INPUT_1$ = (CUL X $INPUT_0$) / IAP

µg/l = micrograms per liter

µg/m^3 = micrograms per cubic meter

MTCA = Washington State Model Toxics Control Act Cleanup Regulation

Table 5
Johnson and Ettinger Screening Level Model Results - Sea Level Aquifer
Whidbey Marine & Auto Supply Site
Freeland, Washington
Farallon PN: 454-001

Residential Exposure Scenario

Input Parameters		Units	Benzene	Toluene	Ethylbenzene	m-Xylene	o-Xylene
MTCA Method B Indoor Air Cleanup Level[1]	CUL	µg/m^3	0.32	2,200	460	46	46
Predicted J&E Attenuation Factor[2]		unitless	0.0002409	0.0002382	0.0002067	0.0001935	0.0002384
November 2011 Maximum Groundwater Concentration	$INPUT_0$	µg/l	19,000	68,000	4,400	16,000	7,500
Best Estimate Indoor Air Prediction[3]	IAP	µg/m^3	556.5	2,164	132.8	417.7	168.4
Protective Groundwater Concentration[4, 6]	$INPUT_1$	µg/l	10.93	69,131	15,241	1762	2049

Commercial Exposure Scenario

Input Parameters		Units	Benzene	Toluene	Ethylbenzene	m-Xylene	o-Xylene
Modified MTCA Method B Indoor Air Cleanup Level[1]	CUL	µg/m^3	1.69	21,304	4,413	435	435
Predicted J&E Attenuation Factor[2]		unitless	0.0002409	0.0002382	0.0002067	0.0001935	0.0002384
November 2011 Maximum Groundwater Concentration[3]	$INPUT_0$	µg/l	19,000	68,000	4,400	16,000	7,500
Best Estimate Indoor Air Prediction[3]	IAP	µg/m^3	556.5	2,164	132.8	417.7	168.4
Protective Groundwater Concentration[5, 6]	$INPUT_1$	µg/l	57.7	669,453	146,215	16,654	19,364

NOTES:

[1] lesser of carcinogen or non-carcinogen cleanup level

[2] Johnson and Ettinger model simulation groundwater to indoor air attenuation factor

[3] at November 2011 concentrations

[4] at MTCA Method B indoor air cleanup level

[5] at Modified MTCA Method B indoor air cleanup level

[6] $INPUT_1$ = (CUL X $INPUT_0$) / IAP

µg/l = micrograms per liter

µg/m^3 = micrograms per cubic meter

MTCA = Washington State Model Toxics Control Act Cleanup Regulation

December 13, 2011

Mr. Paul Grabau
Farallon Consulting
1201 Cornwall Ave, Suite 105
Bellingham, WA 98225

Dear Mr. Grabau,

On November 18th, 11 samples were received by our laboratory and assigned our laboratory project number 1111109. The project was identified as your 454-001. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 1201 Cornwall Ave, Suite 105 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/13/2011 1111109 -01
CLIENT CONTACT:	Paul Grabau	DATE RECEIVED:	11/18/2011
CLIENT PROJECT:	454-001	COLLECTION DATE:	11/17/2011 10:12
CLIENT SAMPLE ID	MW-3-111711	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	11/19/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	11/19/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	11/19/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	11/19/2011	DLC
M & P- Xylenes	EPA-8021	U	0	1	UG/L	11/19/2011	DLC
O-Xylene	EPA-8021	U	0	1	UG/L	11/19/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	11/19/2011	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**81.9**	11/19/2011	DLC
TFT	EPA-8021	**96.8**	11/19/2011	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 1201 Cornwall Ave, Suite 105 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/13/2011 1111109 -02
CLIENT CONTACT:	Paul Grabau	DATE RECEIVED:	11/18/2011
CLIENT PROJECT:	454-001	COLLECTION DATE:	11/17/2011 10:53
CLIENT SAMPLE ID	MW-1-111711	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	11/19/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	11/19/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	11/19/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	11/19/2011	DLC
M & P- Xylenes	EPA-8021	U	0	1	UG/L	11/19/2011	DLC
O-Xylene	EPA-8021	U	0	1	UG/L	11/19/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	11/19/2011	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**96.7**	11/19/2011	DLC
TFT	EPA-8021	**101**	11/19/2011	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 1201 Cornwall Ave, Suite 105 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/13/2011 1111109 -03
CLIENT CONTACT:	Paul Grabau	DATE RECEIVED:	11/18/2011
CLIENT PROJECT:	454-001	COLLECTION DATE:	11/17/2011 11:37
CLIENT SAMPLE ID	MW-10-111711	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	**50**	50	1	UG/L	11/19/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	11/19/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	11/19/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	11/19/2011	DLC
M & P- Xylenes	EPA-8021	U	0	1	UG/L	11/19/2011	DLC
O-Xylene	EPA-8021	U	0	1	UG/L	11/19/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	11/19/2011	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**95.7**	11/19/2011	DLC
TFT	EPA-8021	**102**	11/19/2011	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
Gasoline range results primarily due to an individual peak eluting in the gas range.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 1201 Cornwall Ave, Suite 105 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/13/2011 1111109 -04
CLIENT CONTACT:	Paul Grabau	DATE RECEIVED:	11/18/2011
CLIENT PROJECT:	454-001	COLLECTION DATE:	11/17/2011 12:20
CLIENT SAMPLE ID	MW-2-111711	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	**130**	50	1	UG/L	11/19/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	11/19/2011	DLC
Toluene	EPA-8021	**1.5**	1.0	1	UG/L	11/19/2011	DLC
Ethylbenzene	EPA-8021	**1.3**	1.0	1	UG/L	11/19/2011	DLC
M & P- Xylenes	EPA-8021	**3.3**	0	1	UG/L	11/19/2011	DLC
O-Xylene	EPA-8021	**6.8**	0	1	UG/L	11/19/2011	DLC
Xylenes	EPA-8021	**10**	3.0	1	UG/L	11/19/2011	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**109**	11/19/2011	DLC
TFT	EPA-8021	**109**	11/19/2011	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains weathered gasoline.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 1201 Cornwall Ave, Suite 105 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/13/2011 1111109 -05
CLIENT CONTACT:	Paul Grabau	DATE RECEIVED:	11/18/2011
CLIENT PROJECT:	454-001	COLLECTION DATE:	11/17/2011 13:15
CLIENT SAMPLE ID	MW-8-111711	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	**47000**	2500	50	UG/L	11/21/2011	DLC
Benzene	EPA-8021	U	50	50	UG/L	11/21/2011	DLC
Toluene	EPA-8021	U	50	50	UG/L	11/21/2011	DLC
Ethylbenzene	EPA-8021	**1200**	50	50	UG/L	11/21/2011	DLC
M & P- Xylenes	EPA-8021	**7600**	0	50	UG/L	11/21/2011	DLC
O-Xylene	EPA-8021	**4000**	0	50	UG/L	11/21/2011	DLC
Xylenes	EPA-8021	**12000**	150	50	UG/L	11/21/2011	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 50X Dilution	NWTPH-GX	**101**	11/21/2011	DLC
TFT 50X Dilution	EPA-8021	**102**	11/21/2011	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 1201 Cornwall Ave, Suite 105 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/13/2011 1111109 -06
CLIENT CONTACT:	Paul Grabau	DATE RECEIVED:	11/18/2011
CLIENT PROJECT:	454-001	COLLECTION DATE:	11/17/2011 13:20
CLIENT SAMPLE ID	DUP-1-111711	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	**47000**	2500	50	UG/L	11/21/2011	DLC
Benzene	EPA-8021	U	50	50	UG/L	11/21/2011	DLC
Toluene	EPA-8021	U	50	50	UG/L	11/21/2011	DLC
Ethylbenzene	EPA-8021	**1200**	50	50	UG/L	11/21/2011	DLC
M & P- Xylenes	EPA-8021	**7700**	0	50	UG/L	11/21/2011	DLC
O-Xylene	EPA-8021	**4000**	0	50	UG/L	11/21/2011	DLC
Xylenes	EPA-8021	**12000**	150	50	UG/L	11/21/2011	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 50X Dilution	NWTPH-GX	**102**	11/21/2011	DLC
TFT 50X Dilution	EPA-8021	**112**	11/21/2011	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 1201 Cornwall Ave, Suite 105 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/13/2011 1111109 -07
CLIENT CONTACT:	Paul Grabau	DATE RECEIVED:	11/18/2011
CLIENT PROJECT:	454-001	COLLECTION DATE:	11/17/2011 14:45
CLIENT SAMPLE ID	MW-6-111711	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	**22000**	1000	20	UG/L	11/21/2011	DLC
Benzene	EPA-8021	U	20	20	UG/L	11/21/2011	DLC
Toluene	EPA-8021	**1200**	20	20	UG/L	11/21/2011	DLC
Ethylbenzene	EPA-8021	**520**	20	20	UG/L	11/21/2011	DLC
M & P- Xylenes	EPA-8021	**3300**	0	20	UG/L	11/21/2011	DLC
O-Xylene	EPA-8021	**2000**	0	20	UG/L	11/21/2011	DLC
Xylenes	EPA-8021	**5400**	60	20	UG/L	11/21/2011	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 20X Dilution	NWTPH-GX	**98.6**	11/21/2011	DLC
TFT 20X Dilution	EPA-8021	**120**	11/21/2011	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains lightly weathered gasoline.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 1201 Cornwall Ave, Suite 105 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/13/2011 1111109 -08
CLIENT CONTACT:	Paul Grabau	DATE RECEIVED:	11/18/2011
CLIENT PROJECT:	454-001	COLLECTION DATE:	11/17/2011 15:55
CLIENT SAMPLE ID	MW-12-111711	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	**68000**	2500	50	UG/L	11/21/2011	DLC
Benzene	EPA-8021	**82**	50	50	UG/L	11/21/2011	DLC
Toluene	EPA-8021	**4700**	50	50	UG/L	11/21/2011	DLC
Ethylbenzene	EPA-8021	**1500**	50	50	UG/L	11/21/2011	DLC
M & P- Xylenes	EPA-8021	**7200**	0	50	UG/L	11/21/2011	DLC
O-Xylene	EPA-8021	**4100**	0	50	UG/L	11/21/2011	DLC
Xylenes	EPA-8021	**11000**	150	50	UG/L	11/21/2011	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 50X Dilution	NWTPH-GX	**96.2**	11/21/2011	DLC
TFT 50X Dilution	EPA-8021	**107**	11/21/2011	DLC

Chromatogram indicates that it is likely that sample contains lightly weathered gasoline.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 1201 Cornwall Ave, Suite 105 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/13/2011 1111109 -09
CLIENT CONTACT:	Paul Grabau	DATE RECEIVED:	11/18/2011
CLIENT PROJECT:	454-001	COLLECTION DATE:	11/18/2011 09:50
CLIENT SAMPLE ID	MW-4-111811	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	**2300**	250	5	UG/L	11/21/2011	DLC
Benzene	EPA-8021	U	5.0	5	UG/L	11/21/2011	DLC
Toluene	EPA-8021	**20**	5.0	5	UG/L	11/21/2011	DLC
Ethylbenzene	EPA-8021	**110**	5.0	5	UG/L	11/21/2011	DLC
M & P- Xylenes	EPA-8021	**220**	0	5	UG/L	11/21/2011	DLC
O-Xylene	EPA-8021	**380**	0	5	UG/L	11/21/2011	DLC
Xylenes	EPA-8021	**610**	15	5	UG/L	11/21/2011	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 5X Dilution	NWTPH-GX	**95.0**	11/21/2011	DLC
TFT 5X Dilution	EPA-8021	**94.9**	11/21/2011	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains weathered gasoline.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 1201 Cornwall Ave, Suite 105 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/13/2011 1111109 -10
CLIENT CONTACT:	Paul Grabau	DATE RECEIVED:	11/18/2011
CLIENT PROJECT:	454-001	COLLECTION DATE:	11/18/2011 10:45
CLIENT SAMPLE ID	MW-11-111811	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	**24000**	2500	50	UG/L	11/21/2011	DLC
Benzene	EPA-8021	**670**	50	50	UG/L	11/21/2011	DLC
Toluene	EPA-8021	**3700**	50	50	UG/L	11/21/2011	DLC
Ethylbenzene	EPA-8021	**820**	50	50	UG/L	11/21/2011	DLC
M & P- Xylenes	EPA-8021	**2500**	0	50	UG/L	11/21/2011	DLC
O-Xylene	EPA-8021	**580**	0	50	UG/L	11/21/2011	DLC
Xylenes	EPA-8021	**3000**	150	50	UG/L	11/21/2011	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 50X Dilution	NWTPH-GX	**93.4**	11/21/2011	DLC
TFT 50X Dilution	EPA-8021	**108**	11/21/2011	DLC

Chromatogram indicates that it is likely that sample contains lightly weathered gasoline.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 1201 Cornwall Ave, Suite 105 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/13/2011 1111109 -11
CLIENT CONTACT:	Paul Grabau	DATE RECEIVED:	11/18/2011
CLIENT PROJECT:	454-001	COLLECTION DATE:	11/18/2011 11:30
CLIENT SAMPLE ID	MW-9-111811	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	**240000**	12000	250	UG/L	11/28/2011	DLC
Benzene	EPA-8021	**19000**	250	250	UG/L	11/28/2011	DLC
Toluene	EPA-8021	**68000**	1000	1000	UG/L	11/28/2011	DLC
Ethylbenzene	EPA-8021	**4400**	250	250	UG/L	11/28/2011	DLC
M & P- Xylenes	EPA-8021	**16000**	0	250	UG/L	11/28/2011	DLC
O-Xylene	EPA-8021	**7500**	0	250	UG/L	11/28/2011	DLC
Xylenes	EPA-8021	**23000**	750	250	UG/L	11/28/2011	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 250X Dilution	NWTPH-GX	**107**	11/28/2011	DLC
TFT 250X Dilution	EPA-8021	**114**	11/28/2011	DLC
TFT 1000X Dilution	EPA-8021	**108**	11/28/2011	DLC

Chromatogram indicates that it is likely that sample contains lightly weathered gasoline.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 1201 Cornwall Ave, Suite 105 Bellingham, WA 98225	DATE:	12/13/2011
		ALS SDG#:	1111109
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Paul Grabau		
CLIENT PROJECT:	454-001		

LABORATORY BLANK RESULTS

MBG-111811W - Batch 2316 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	11/18/2011	DLC

MB-111811W - Batch 2316 - Water by EPA-8021

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	1.0	1	UG/L	11/18/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	11/18/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	11/18/2011	DLC
M & P- Xylenes	EPA-8021	U	0	1	UG/L	11/18/2011	DLC
O-Xylene	EPA-8021	U	0	1	UG/L	11/18/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	11/18/2011	DLC

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 1201 Cornwall Ave, Suite 105 Bellingham, WA 98225	DATE:	12/13/2011
		ALS SDG#:	1111109
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Paul Grabau		
CLIENT PROJECT:	454-001		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 2316 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**69.1**			11/18/2011	DLC
TPH-Volatile Range - BSD	NWTPH-GX	**65.7**	**5**		11/19/2011	DLC

ALS Test Batch ID: 2316 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	**111**			11/21/2011	DLC
Benzene - BSD	EPA-8021	**110**	**0**		11/18/2011	DLC
Toluene - BS	EPA-8021	**106**			11/21/2011	DLC
Toluene - BSD	EPA-8021	**106**	**0**		11/18/2011	DLC
Ethylbenzene - BS	EPA-8021	**102**			11/21/2011	DLC
Ethylbenzene - BSD	EPA-8021	**101**	**0**		11/18/2011	DLC
Xylenes - BS	EPA-8021	**102**			11/21/2011	DLC
Xylenes - BSD	EPA-8021	**102**	**0**		11/18/2011	DLC

APPROVED BY

Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company