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INTERIM ACTION COMPLETION REPORT

700 DEXTER HVOC PLUME BLOCK 37 PROPERTY 630 WESTLAKE AVENUE NORTH SEATTLE, WASHINGTON

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1.0 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) prepared this Interim Action Completion Report to document the Interim Action conducted at 630 Westlake Avenue North in the South Lake Union area of Seattle, Washington (Block 37 Property) from April 17 through December 18, 2017 (Figures 1 and 2). City Investors XI LLC (City Investors) owns the Block 37 Property, and installed and operated components of an interim action comprised of four groundwater interception wells, wastewater conveyance piping, and a wastewater treatment process (Interim Action System). The Interim Action System was installed in accordance with the Interim Action Work Plan, 700 Dexter HVOC Plume Portion of 700 Dexter Site, South Lake Union Properties, Seattle, Washington dated December 1, 2016, prepared by Farallon (2016) (Interim Action Work Plan). The Interim Action was performed in accordance with the Washington State Model Toxics Control Act Cleanup Regulation (MTCA), as established in Chapter 173-340 of the Washington Administrative Code (WAC 173-340), as an independent remedial action per WAC 173-340-515 without direct oversight from the Washington State Department of Ecology (Ecology). The Interim Action Work Plan, however, was provided to Ecology. This Interim Action Completion Report satisfies the requirements for an Interim Action completion report as specified in the Interim Action Work Plan and in accordance with WAC 173-340-400(6)(b).

The Interim Action Work Plan presented background information pertaining to a regional groundwater plume of volatile organic constituents and hydrogeologic conditions in the South Lake Union area, a summary of the basis for the Interim Action, and a description of the Interim Action and Interim Action System design criteria. This Interim Action Completion Report summarizes background information pertaining to the Block 37 Property; describes the Interim Action conducted at the Block 37 Property, including its objectives and Interim Action System construction, operation, monitoring, and shut-down; documents the results from the Interim Action; and concludes that the Interim Action objectives were met.



2.0 BACKGROUND

The section summarizes pertinent background information pertaining to the Block 37 Property. Additional background information regarding the regional groundwater plume of volatile organic constituents and hydrogeologic conditions in the South Lake Union area, a summary of the basis for the Interim Action, and a description of the Interim Action and Interim Action design criteria were presented in the Interim Action Work Plan.

Groundwater in the South Lake Union area is impacted by tetrachloroethene (PCE) and its degradation compounds trichloroethene, isomers of dichloroethene (DCE), and vinyl chloride (collectively referred to as HVOCs), released at and migrating from a former dry cleaning facility owned and operated by American Linen Supply Co. (American Linen) at 700 Dexter Avenue North, currently owned by BMR-Dexter, LLC (700 Dexter Property) (Figure 2). HVOCs have migrated through groundwater to the northeast, east, and south of the 700 Dexter Property and comprise a regional plume of unknown extent (700 Dexter HVOC Plume). Based on empirical data, the 700 Dexter HVOC Plume is known to extend as far east as the eastern portion of the Block 37 Property (Figure 2).

The area where contamination attributable to the former American Linen facility has come to be located is referred to by Ecology as the American Linen Supply Co. - Dexter Avenue Site and sometimes also is referred to as the 700 Dexter Site. Ecology has determined that BMR-Dexter, LLC; 700 Dexter, LLC, a former owner of the 700 Dexter Property; and American Linen are potentially liable persons (PLPs) under MTCA for the 700 Dexter Site. Based on Ecology data and records reviewed by Farallon¹, the PLPs have not fully characterized the 700 Dexter Site to date, or implemented remedial actions to treat or contain portions of the 700 Dexter HVOC Plume that extend beyond the 700 Dexter Property.

Lakefront Investors 1 LLC and Lakefront Investors 2 LLC commenced redevelopment of two properties east-adjacent to the Block 37 Property in April 2017, with work on the above-grade portions of the buildings continuing into 2018. These properties are referred to as the Block 25 Property (609 Fairview Avenue North and 630 Boren Avenue North) and the Block 31 Property (625 Boren Avenue North), and collectively as the Blocks 25 and 31 Properties (Figure 2). Construction at the Blocks 25 and 31 Properties required dewatering from May to December 2017. Based on the known eastern limit of the 700 Dexter HVOC Plume at the Block 37 Property and an understanding of hydrogeologic conditions in the South Lake Union area, if the Interim Action had not been implemented, construction dewatering at the Blocks 25 and 31 Properties would have resulted in further eastward expansion of the lateral extent of the 700 Dexter HVOC Plume into areas that currently are not impacted.

¹ Documentation provided by Ecology for Farallon review regarding conditions known to date pertaining to the 700 Dexter Site and cleanup plans include SoundEarth Strategies, Inc. (2013a, 2013b, 2014, 2015) and PES Environmental, Inc. (2018) reports.



Construction dewatering associated with development activities at the Blocks 25 and 31 Properties commenced at those properties on May 18, 2017. The objective of the construction dewatering was to draw down shallow static groundwater levels from about 15 feet above mean sea level (msl) to as deep as about 7 feet below msl at the Block 31 Property, and to about 4 feet below msl at the Block 25 Property. The construction dewatering wells were screened from approximately 15 feet above msl to approximately 25 feet below msl and across the Shallow Water-Bearing Zone, the Intermediate Water-Bearing Zone, and, at some locations, the upper few feet of the Deep Outwash Aquifer, as these water-bearing units are defined for the South Lake Union area in the Interim Action Work Plan². Construction excavation removed the Shallow Water-Bearing Zone and portions of the Intermediate Water-Bearing Zone from the Blocks 25 and 31 Properties. The construction dewatering system extracted up to about 1,300,000 gallons of groundwater per day, with an average of about 690,000 gallons per day from May 18 through October 19, 2017. Pumping from some of the construction dewatering wells at the Blocks 25 and 31 Properties was terminated on October 19, 2017, beginning a gradual reduction in construction dewatering groundwater pumping as underground structures were completed at the Blocks 25 and 31 Properties, and the mass of the structures was sufficient to counteract buoyancy forces exerted by shallow static groundwater conditions. Construction dewatering at the Block 31 Property was completely shut down on November 17, 2017. Reduced construction dewatering pumping continued at the Block 25 Property in selected dewatering wells until complete shutdown of the Block 25 Property dewatering system on December 17, 2017. A total of about 120,000,000 gallons of groundwater was removed during construction dewatering at the Block 25 and 31 Properties between May 18 and December 17, 2017.

² Shallow Water-Bearing Zone: the uppermost water-bearing zone in fill and underlying recent deposits.

Intermediate Water-Bearing Zone: the water-bearing zone below the Shallow Water-Bearing Zone in glacially consolidated soil.

Deep Outwash Aquifer: the water-bearing zone below the Intermediate Water-Bearing Zone in dense advance outwash sand deposits.



3.0 INTERIM ACTION

The Interim Action conducted at the Block 37 Property is discussed in this section, including its objectives; the construction, operation, monitoring, and shut-down of the Interim Action System; and the results from the Interim Action.

3.1 **OBJECTIVES**

As described in the Interim Action Work Plan, the objectives of the Interim Action were to:

- Prevent further eastern migration of the 700 Dexter HVOC Plume located at and under the Block 37 Property during the period of construction dewatering at the Blocks 25 and 31 Properties to the extent practicable; and
- Manage HVOC-contaminated groundwater by extraction and treatment to avoid potential impacts to the down-gradient (under pumping conditions) Blocks 25 and 31 Properties.

3.2 INTERIM ACTION SYSTEM CONSTRUCTION, OPERATION, AND MONITORING

Interim Action System interception well design specifications detailed in the *Interim Action Interception Well Plan* dated November 2, 2016 prepared by Middour Consulting LLC (2016) provided the design for the four Interim Action interception wells (Appendix A). The Interim Action System interception wells were installed on the Block 37 Property on February 2, 3, and 7, 2017 in accordance with the design specifications. The interception wells were constructed of 12-inch-diameter steel casing, and were screened from 32 to 92 feet below ground surface (i.e., 3 to 63 feet below msl) and across the upper portion of the Deep Outwash Aquifer and the lower portion of the Intermediate Water-Bearing Zone (Figure 2; Appendix B). Pumping associated with the Interim Action System commenced on April 17, 2017, approximately 1 month prior to the start of construction dewatering at the Blocks 25 and 31 Properties. The Interim Action System withdrew up to about 670,000 gallons of groundwater per day, with an average of about 280,000 gallons per day from April 17 through shut-down on December 18, 2017. A total of about 70,000,000 gallons of groundwater was extracted and treated during operation of the Interim Action System.

The technical memorandum regarding April through June 2017 Status Report, Groundwater Interception System, 700 Dexter HVOC Plume Interim Action, Seattle, Washington dated October 16, 2017 from Messrs. Russell O. Luiten and Thaddeus J. Cline of Farallon (2017) to Mr. Raymond Burdick of City Investors XI LLC (June Status Report), summarized the start-up of the Interim Action System on April 17, 2017 and its operation through June 30, 2017.



As specified in the Interim Action Work Plan and described in the June Status Report, Farallon performed Interim Action compliance monitoring for the duration of the operation of the Interim Action System, which consisted of the following:

- Automatic recording of water levels with pressure transducers and data loggers in select monitoring wells (Logging).
- Manual gauging of groundwater level elevations in select monitoring wells and in the Interim Action interception wells (Gauging).
- Groundwater and wastewater sampling for HVOC analysis at specific locations and times (Sampling). Sampling applied only to groundwater monitoring in wells FMW-131 and FMW-3D, and to effluent from the Interim Action System.

Compliance monitoring was conducted using the methodology specified in the Interim Action Work Plan. Table 1 summarizes Farallon field events conducted during the Interim Action; Table 2 provides results from the Gauging; Table 3 presents results from the Sampling.

Wastewater generated by the Interim Action System was treated in and discharged from a wastewater treatment system that was designed, built, operated, maintained, and monitored by WaterTectonics. Treated wastewater from the Interim Action was discharged from a single point of discharge together with treated wastewater generated by construction activities conducted at the Blocks 25 and 31 Properties. A table presenting laboratory analytical results for HVOCs in wastewater samples collected by WaterTectonics from May through December 2017 is provided in Appendix C.

In addition to Interim Action compliance monitoring, Farallon conducted periodic operational monitoring of one component of the Interim Action wastewater treatment system for the purpose of evaluating compliance with air emissions regulations, and to recommend adjustments to the Interim Action System so as to comply with air emissions regulations. The wastewater treatment system comprised a number of treatment processes and included two aeration tanks that reduced HVOC concentrations in the groundwater extracted by the Interim Action System by induced volatilization to the atmosphere. The aeration treatment process was conducted upstream of sand filtration, filtration using granular activated carbon, and discharge of treated wastewater via a private conveyance to Lake Union under a National Pollutant Discharge Elimination System Construction Stormwater General Permit, or alternatively, discharge to the sanitary sewer per a King County Major Discharge Authorization. Results from Farallon's operational monitoring of wastewater discharge from the two aeration tanks enabled evaluation of the HVOC removal efficiency of the aeration treatment process, and the need for adjustments to the Interim Action System to comply with untreated air emissions regulations (Puget Sound Clean Air Agency Regulation I, Section 6.03[c][94]). Table 4 presents laboratory analytical results for HVOC concentrations in wastewater samples collected by Farallon from the influent to and effluent from the aeration tanks during the period of aeration tank operation.



Laboratory analytical reports for groundwater and wastewater samples collected by Farallon during the Interim Action are provided in Appendix D.

3.3 INTERIM ACTION SYSTEM SHUT-DOWN

Groundwater extraction for the Interim Action was terminated on December 18, 2017, approximately 1 month after termination of groundwater pumping associated with construction dewatering at the Block 31 Property. The Interim Action System shut-down entailed a final round of Gauging, termination of Logging, and Sampling at monitoring well FMW-131 as specified in the Interim Action Work Plan. After the termination of Interim Action groundwater extraction, the interception well pumps, controls, and wiring were removed, and the well-heads were modified so the former interception wells could be maintained as monitoring wells.

After removing approximately 13 pounds of vinyl chloride from Interim Action wastewater, the aeration treatment process of the wastewater treatment system was shut down on November 3, 2017 to prevent exceedance of the 15-pound limit for vinyl chloride under the Puget Sound Clean Air Agency exceptions criterion for untreated air emissions.

3.4 INTERIM ACTION RESULTS

Groundwater extraction performed by the Interim Action System created a linear depression of groundwater levels that was lower than the water level elevations in the construction dewatering system observation wells. The Gauging data presented in Table 2 indicate that maximum drawdown in the Interim Action System interception wells was about 36 feet (to about 18 feet below msl³). Maximum drawdown at monitoring well FMW-131, located approximately 100 feet east of the Interim Action System interception wells, was about 27 feet (to about 8 feet below msl⁴). Maximum drawdown in the construction dewatering system on the western side of the Block 31 Property was about 22 feet (to about 7 feet below msl). The westward groundwater flow gradient on the eastern portion of the Block 37 Property induced by Interim Action System groundwater pumping⁵ prevented further eastward migration of the 700 Dexter HVOC Plume during the period of construction dewatering. Based on periodic discharge readings and results of laboratory analysis of samples of Interim Action wastewater for HVOCs, the Interim Action System removed approximately 46 pounds of HVOCs (28 pounds cis-1,2-DCE and 18 pounds vinyl chloride) during the period of its operation.

Results from Sampling at monitoring well FMW-3D indicate that no HVOCs were present in groundwater as far east as the Block 31 Property, and wastewater discharge from construction dewatering groundwater pumping at the Blocks 25 and 31 Properties did not require treatment for HVOCs prior to discharge. Sampling data presented in Table 3 indicate that groundwater pumping associated with construction dewatering at the Blocks 25 and 31 Properties did not cause further

³ On July 7, 2017 in interception well IA-2.

⁴ On July 7, 2017 in monitoring well FMW-131.

⁵ There was a general eastward groundwater flow gradient prior to the Interim Action and construction dewatering.



eastward migration of the 700 Dexter HVOC Plume under the Block 37 Property. In fact, analytical results for groundwater samples collected from monitoring well FMW-131 demonstrate a reduction in HVOC concentrations in groundwater samples collected proximate to the prepumping eastern extent of the 700 Dexter HVOC Plume as a result of the Interim Action, as follows:

- cis-1,2-DCE was detected at a concentration of 39 micrograms per liter in a groundwater sample collected from monitoring well FMW-131 on March 24, 2017, prior to start-up of the Interim Action System and the Blocks 25 and 31 Properties construction dewatering systems. Concentrations of PCE, trichloroethene, trans-1,2-DCE, and vinyl chloride were non-detect in the groundwater sample collected from monitoring well FMW-131 on March 24, 2017.
- cis-1,2-DCE was detected at a concentration of 3.6 micrograms per liter and vinyl chloride was detected at a concentration of 0.26 micrograms per liter in a groundwater sample collected from monitoring well FMW-131 on June 23, 2017, approximately 3 months after start-up of the Interim Action System, and approximately 1 month after start-up of the Blocks 25 and 31 Properties construction dewatering systems. Concentrations of other HVOCs were non-detect in the groundwater sample collected from monitoring well FMW-131 on June 23, 2017.
- cis-1,2-DCE was detected at a concentration of 0.61 microgram per liter in a groundwater sample collected from monitoring well FMW-131 on December 18, 2017, the day the Interim Action System was shut down, about 1 month after shut-down of the Block 31 construction dewatering system. This concentration indicates a reduction of over 98 percent in the concentration of cis-1,2-DCE from concentrations present prior to start-up of the Interim Action System. Concentrations of other HVOCs were non-detect in the groundwater sample collected from monitoring well FMW-131 on December 18, 2017.



4.0 CONCLUSIONS

The Interim Action was conducted in accordance with MTCA on an independent basis per WAC 173-340-515, Independent Remedial Actions without direct oversight from Ecology. The objectives of the Interim Action were to prevent further eastward migration of the 700 Dexter Plume at and under the Block 37 Property, and to avoid potential impacts to the down-gradient Blocks 25 and 31 Properties during construction dewatering, to the extent practicable. The Interim Action successfully prevented further eastward migration of the 700 Dexter HVOC Plume located at and under the Block 37 Property by establishing a linear depression of groundwater levels at the interception wells, and the Interim Action System managed HVOC-contaminated groundwater by extraction and treatment to avoid potential impacts to the Blocks 25 and 31 Properties during construction in HVOC concentrations in groundwater proximate to the pre-pumping eastern extent of the 700 Dexter HVOC Plume as a result of the Interim Action. It is estimated that the Interim Action System removed approximately 46 pounds of HVOCs from the 700 Dexter HVOC Plume.



5.0 REFERENCES

- Farallon Consulting, L.L.C. (Farallon). 2016. Interim Action Work Plan, 700 Dexter HVOC Plume Portion of 700 Dexter Site, South Lake Union Properties, Seattle, Washington. Prepared for City Investors XI LLC. December 1.
 - 2017. Technical Memorandum Regarding April through June 2017 Status Report, Groundwater Interception System, 700 Dexter HVOC Plume Interim Action, Seattle, Washington. From Russell O. Luiten and Thaddeus J. Cline. To Raymond Burdick, City Investors XI LLC. October 16.
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- PES Environmental, Inc. (PES). 2018. Public Review Interim Action Work Plan, American Linen Supply Co-Dexter Avenue Site, 700 Dexter Avenue North, Seattle, Washington. January 8.
- SoundEarth Strategies, Inc. 2013a. Remedial Investigation Report, 700 Dexter Property, 700 Dexter Avenue North, Seattle, Washington—Draft Issued for Ecology Review. Prepared for Frontier Environmental Management LLC. July 15.
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- ———. 2014. Cleanup Action Plan, 700 Dexter Property, 700 Dexter Avenue North, Seattle, Washington—Draft Issued for Ecology Review. Prepared for Frontier Environmental Management LLC. January 31.
 - ——. 2015. Draft Cleanup Action Plan, 700 Dexter Property, 700 Dexter Avenue North, Seattle, Washington—Draft Issued for Ecology Review. Prepared for Frontier Environmental Management LLC. September 28.



6.0 LIMITATIONS

6.1 GENERAL LIMITATIONS

The conclusions contained in this report/assessment are based on professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location. The conclusions contained herein are subject to the following inherent limitations:

- Accuracy of Information. Farallon obtained, reviewed, and evaluated certain information used in this report/assessment from sources that were believed to be reliable. Farallon's conclusions, opinions, and recommendations are based in part on such information. Farallon's services did not include verification of its accuracy or authenticity. Should the information upon which Farallon relied prove to be inaccurate or unreliable, Farallon reserves the right to amend or revise its conclusions, opinions, and/or recommendations.
- **Reconnaissance and/or Characterization.** Farallon performed a reconnaissance and/or characterization of the Site that is the subject of this report/assessment to document current conditions. Farallon focused on areas deemed more likely to exhibit hazardous materials conditions. Contamination may exist in other areas of the Site that were not investigated or were inaccessible. Site activities beyond Farallon's control could change at any time after the completion of this report/assessment.

Farallon cannot and does not warrant or guarantee that the Site is free of hazardous or potentially hazardous substances or conditions, or that latent or undiscovered conditions will not become evident in the future. Farallon's observations, findings, and opinions can be considered valid only as of the date of the report hereof.

This report/assessment has been prepared in accordance with the contract for services between Farallon and City Investors XI LLC. No other warranties, representations, or certifications are made.

6.2 LIMITATION ON RELIANCE BY THIRD PARTIES

Reliance by third parties is prohibited. Any use, interpretation, or reliance upon this report/assessment by anyone other than City Investors XI LLC is at the sole risk of that party, and Farallon will have no liability for such unauthorized use, interpretation, or reliance.

FIGURES

INTERIM ACTION COMPLETION REPORT

Groundwater Interception System 700 Dexter HVOC Plume Interim Action Block 37 Property 630 Westlake Avenue North Seattle, Washington

Farallon PN: 397-044





TABLES

INTERIM ACTION COMPLETION REPORT

Groundwater Interception System 700 Dexter HVOC Plume Interim Action Block 37 Property 630 Westlake Avenue North Seattle, Washington

Farallon PN: 397-044

Table 1Event Summary700 Dexter HVOC Plume Interim ActionSeattle, WashingtonFarallon PN: 397-044

	Monitoring	System Flow	System Flow	a .	
Monitoring Event [*]	Date	(gallons per minute)	Adjustments	Gauging	Sampling
Install Interim Action wells IA-1 and IA-2	2/3/2017				
Install Interim Action wells IA-3 and IA-4	2/7/2017				
Farallon monitoring	4/14/2017			Х	
Start-up for 48-hour test for Interim Action well IA-2	04/17/2017	300 (one well only)	Х	Х	Х
only, adjustments	04/18/2017	e co (one wen only)		Х	
Start-up for all four Interim Action wells	04/19/2017	800	Х	Х	Х
Smaller pumps installed in all four Interim Action wells	04/21/2017	280	Х		
Farallon monitoring	04/27/2017	260		Х	Х
Farallon monitoring	05/04/2017			Х	Х
Farallon monitoring	05/12/2017			Х	Х
Farallon monitoring	05/15/2017	200		Х	
Farallon monitoring	05/24/2017	280		Х	Х
Farallon monitoring	06/02/2017			Х	Х
Farallon monitoring	06/06/2017			Х	
Farallon monitoring	06/13/2017			Х	Х
Farallon monitoring	06/27/2017	260		Х	Х
Farallon monitoring	06/30/2017	200		Х	
Farallon monitoring	07/07/2017			Х	Х
Farallon monitoring, adjustments	07/14/2017		Х	Х	Х
Farallon monitoring, adjustments	07/17/2017		Х	Х	
Farallon monitoring, adjustments	07/18/2017		Х	Х	
Farallon monitoring, adjustments	07/19/2017	180	Х	Х	
Farallon monitoring	07/20/2017	160		Х	Х
Farallon monitoring	07/31/2017			Х	Х
Farallon monitoring	08/09/2017			Х	Х
Farallon monitoring	08/18/2017			Х	Х
Farallon monitoring, adjustments	08/23/2017		Х	Х	
Farallon monitoring, adjustments	08/24/2017		Х	Х	
Farallon monitoring	08/30/2017	160		Х	Х
Farallon monitoring	09/12/2017]		Х	Х
Farallon monitoring	09/27/2017			X	X

Table 1Event Summary700 Dexter HVOC Plume Interim Action
Seattle, Washington
Farallon PN: 397-044

Monitoring Evont ¹	Monitoring	System Flow	System Flow	Couging	Sompling
Earallon monitoring adjustments	09/29/2017	(ganons per minute)	Aujustinents	v	Sampning
Farallon monitoring	10/05/2017		Λ	v	v
Farallon monitoring adjustments	10/03/2017		v	x v	x
Farallan monitoring	10/24/2017	130	Λ	X	Λ
	10/25/2017	150		X	
Faralion monitoring, adjustments	10/20/2017		X	X	
Farallon monitoring	10/27/2017			Х	
Farallon monitoring, adjustments	10/30/2017		Х	Х	
Farallon monitoring, adjustments	10/31/2017	110	Х	Х	
Farallon monitoring, adjustments	11/06/2017	150	Х	Х	
Farallon monitoring	11/10/2017	150		Х	
Farallon monitoring, adjustments	11/16/2017		Х	Х	
Farallon monitoring, adjustments	11/17/2017	110	Х	Х	Х
Farallon monitoring, adjustments	11/20/2017		Х	Х	
Farallon monitoring, adjustments	11/29/2017		Х	Х	
Farallon monitoring	12/04/2017	85		Х	
Farallon monitoring, adjustments	12/05/2017	05	Х	Х	
Farallon monitoring, adjustments	12/08/2017		X	X	
Shutdown of Interim Action system	12/18/2017		X	Х	Х
Farallon monitoring	01/04/2018			X	

NOTES:

--- denotes 0 gallons per minute; no pumping occurred.

HVOC = halogenated volatile organic compound

¹Sampling details for each monitoring event are provided in Table 3.

Location	Monitoring Date ¹	Top of Casing Elevation (feet NAVD88) ²	Depth to Water	Water Level Elevation (feet NAVD88) ²
Location	3/24/2017	(Itel INA V D00)	9.57	18.28
	4/10/2017		6.66	21.19
	4/14/2017		9.64	18.21
	4/17/2017		9.50	18.35
	4/18/2017		18.25	9.60
	4/19/2017		12.96	14.89
	5/4/2017		24.92	2.93
	5/5/2017		25.03	2.82
	5/12/2017		25.81	2.04
	5/15/2017		26.19	1.66
	5/24/2017		32.64	-4.79
	6/2/2017		33.70	-5.85
	6/6/2017		32.21	-4.36
	6/13/2017		33.20	-5.35
	6/27/2017		34.77	-6.92
	6/30/2017		34.60	-6.75
FMW-131	7/7/2017	27.85	36.17	-8.32
	7/14/2017		34.28 4	-6.43 ⁴
	7/20/2017		33.75	-5.90
	7/31/2017		33.44	-5.59
	8/9/2017		33.25	-5.40
	8/18/2017		33.37	-5.52
	8/23/2017		32.65	-4.80
	8/24/2017		32.47	-4.62
	8/30/2017		32.39	-4.54
	9/12/2017		32.69	-4.84
	9/27/2017		32.80	-4.95
	9/29/2017		32.38	-4.53
	10/25/2017		30.15	-2.30
	10/27/2017		30.28	-2.43
	11/29/2017		22.39	5.46
	12/18/2017		20.44	7.41
	1/4/2018		14.61	13.24
	3/24/2017		9.60	18.28
	4/10/2017		9.64	18.24
	4/14/2017		9.65	18.23
	4/17/2017		9.50	18.38
EMW 2D	4/18/2017	27.00	15.48	12.40
FMW-3D	4/19/2017	27.88	12.67	15.21
	4/2//2017		29.40	-1.52
	5/4/2017		21.70	0.18
	5/5/2017		21.8/	0.01
	5/24/2017 6/2/2017		31.93	-4.07
	0/2/2017		50.75	-5.05

Location	Monitoring Date ¹	Top of Casing Elevation (feet NAVD88) ²	Depth to Water (feet) ³	Water Level Elevation (feet NAVD88) ²
	6/6/2017		30.38	-2.50
	6/13/2017		31.67	-3.79
	6/27/2017		32.76	-4.88
	6/30/2017		33.42	-5.54
	7/7/2017		34.47	-6.59
	7/14/2017		33.83 4	-5.95 ⁴
	7/20/2017		32.99	-5.11
	7/31/2017		32.53	-4.65
	8/9/2017		32.02	-4.14
	8/18/2017		32.10	-4.22
	8/23/2017		31.65	-3.77
FMW-3D	8/24/2017	27.88	31.50	-3.62
(continued)	8/30/2017	27.00	31.41	-3.53
	9/12/2017		31.77	-3.89
	9/29/2017		31.58	-3.70
	10/25/2017		29.21	-1.33
	10/27/2017		29.17	-1.29
	11/6/2017		25.30	2.58
	11/10/2017		25.74	2.14
	11/16/2017		23.40	4.48
	11/29/2017		20.93	6.95
	12/4/2017		20.35	7.53
	12/18/2017		19.06	8.82
	1/4/2018		13.97	13.91
	3/24/2017		10.96	18.42
	4/14/2017		9.63	19.75
	4/17/2017		10.95	18.43
	4/18/2017		23.75	5.63
	4/19/2017		14.68	14.70
	7/31/2017		35.96	-6.58
	8/9/2017		35.73	-6.35
	8/18/2017		36.00	-6.62
CEI 2	8/23/2017	20.38	34.89	-5.51
OLI-2	8/24/2017	29.30	34.69	-5.31
	8/30/2017		34.12	-4.74
	9/12/2017		34.87	-5.49
	9/27/2017		34.84	-5.46
	9/29/2017		34.46	-5.08
	10/25/2017		32.44	-3.06
	10/27/2017		32.16	-2.78
	11/10/2017		30.83	-1.45
	1/4/2018		15.23	14.15

		Top of Casing Elevation	Depth to Water	Water Level Elevation
Location	Monitoring Date ¹	(feet NAVD88) ²	(feet) ³	(feet NAVD88) ²
	4/14/2017		14.41	18.18
	4/17/2017		14.29	18.30
	4/18/2017		24.23	8.36
	4/19/2017		17.92	14.67
	4/27/2017		24.19	8.40
	5/4/2017		37.24	-4.65
	5/12/2017		38.21	-5.62
	5/15/2017		38.47	-5.88
	5/24/2017		43.65	-11.06
	6/2/2017		44.02	-11.43
	6/6/2017		43.72	-11.13
	6/13/2017		44.75	-12.16
	6/27/2017		46.29	-13.70
	6/30/2017		45.97	-13.38
	7/7/2017		47.24	-14.65
	7/14/2017		41.97 4	-9.38 ⁴
	7/17/2017		43.10	-10.51
TA 1	7/18/2017	22 50	43.20	-10.61
IA-1	7/19/2017	32.39	42.99	-10.40
	7/20/2017		42.87	-10.28
	7/31/2017		42.69	-10.10
	8/9/2017		42.81	-10.22
	8/18/2017		42.69	-10.10
	8/23/2017		40.89	-8.30 ⁵
	8/24/2017		40.89	-8.30
	8/30/2017		40.85	-8.26
	9/12/2017		40.92	-8.33
	9/27/2017		40.85	-8.26
	9/29/2017		40.23	-7.64
	10/5/2017		40.08	-7.49
	10/24/2017		35.99	-3.40
	10/25/2017		36.16	-3.57
	10/26/2017		38.29	-5.70
	10/27/2017		39.29	-6.70
	10/30/2017		37.13	-4.54
	10/31/2017		37.80	-5.21

Location	Monitoring Date ¹	Top of Casing Elevation (feet NA VD88) ²	Depth to Water	Water Level Elevation (feet NAVD88) ²
Location	11/6/2017		37.40	-/ 81
	11/0/2017		37.40	-4 78
	11/16/2017		30.60	1.99
	11/17/2017		30.51	2.08
IA-1	11/20/2017	32.59	29.10	3.49
(continued)	11/29/2017		27.53	5.06
	12/5/2017		26.71	5.88
	12/8/2017		26.28	6.31
	12/18/2017		25.42	7.17
	4/14/2017		13.58	18.14
	4/17/2017		13.52	18.20
	4/18/2017		42.50	-10.78
	4/19/2017		17.00	14.72
	4/27/2017		36.55	-4.83
	5/4/2017		39.01	-7.29
	5/12/2017		39.86	-8.14
	5/15/2017		40.16	-8.44
	5/24/2017		45.77	-14.05
	6/2/2017		45.99	-14.27
	6/6/2017		45.75	-14.03
	6/13/2017		47.32	-15.60
	6/27/2017		48.26	-16.54
	6/30/2017		47.82	-16.10
	7/7/2017		49.82	-18.10
IA-2	7/14/2017	31.72	40.79 4	-9.07 ⁴
	7/17/2017		42.65	-10.93
	7/18/2017		42.36	-10.64
	7/19/2017		41.89	-10.17
	7/20/2017		41.76	-10.04
	7/31/2017		41.64	-9.92
	8/9/2017		41.45	-9.73
	8/18/2017		41.66	-9.94
	8/23/2017		40.02	-8.30 ⁵
	8/24/2017		40.02	-8.30
	8/30/2017		40.05	-8.33
	9/12/2017		40.16	-8.44
	9/27/2017		40.30	-8.58
	9/29/2017		39.43	-7.71
	10/5/2017		39.33	-7.61
	10/24/2017		35.08	-3.36

Location	Monitoring Date ¹	Top of Casing Elevation (feet NAVD88) ²	Depth to Water (feet) ³	Water Level Elevation (feet NAVD88) ²
	10/25/2017	(35.35	-3.63
	10/26/2017		34.60	-2.88
	10/27/2017		34.80	-3.08
	10/30/2017		32.40	-0.68
	10/31/2017		32.12	-0.40
	11/6/2017		33.60	-1.88
IA-2	11/10/2017	21.72	33.73	-2.01
(continued)	11/16/2017	31.72	31.00	0.72
	11/17/2017		30.20	1.52
	11/20/2017		29.53	2.19
	11/29/2017		27.77	3.95
	12/5/2017		27.02	4.70
	12/8/2017		26.61	5.11
	12/18/2017		25.81	5.91
	4/14/2017		12.92	18.33
	4/17/2017		12.80	18.45
	4/18/2017		23.09	8.16
	4/19/2017		16.71	14.54
	4/27/2017		38.33	-7.08
	5/4/2017		36.37	-5.12
	5/12/2017		37.25	-6.00
	5/15/2017		37.51	-6.26
	5/24/2017		43.10	-11.85
	6/2/2017		43.05	-11.80
	6/6/2017		43.00	-11.75
	6/13/2017		44.71	-13.46
	6/27/2017		43.77	-12.52
IA-3	6/30/2017	31.25	43.62	-12.37
	7/7/2017		46.79	-15.54
	7/14/2017		40.38 4	-9.13 ⁴
	7/17/2017		43.05	-11.80
	7/18/2017		42.14	-10.89
	7/19/2017		41.73	-10.48
	7/20/2017		41.50	-10.25
	7/31/2017		41.33	-10.08
	8/9/2017		41.28	-10.03
	8/18/2017		41.50	-10.25
	8/23/2017		39.75	-8.50 ⁵
	8/24/2017		39.55	-8.30
	8/30/2017		39.49	-8.24
	9/12/2017		39.68	-8.43

Location	Monitoring Date ¹	Top of Casing Elevation (feet NAVD88) ²	Depth to Water (feet) ³	Water Level Elevation (feet NAVD88) ²
	9/27/2017	· · · · · · · · · · · · · · · · · · ·	39.85	-8.60
	9/29/2017		38.89	-7.64
	10/5/2017		38.85	-7.60
	10/24/2017		43.62	-12.37
	10/25/2017		43.94	-12.69
	10/26/2017		37.72	-6.47
	10/27/2017		37.85	-6.60
	10/30/2017		34.40	-3.15
IA-3	10/31/2017	21.25	34.09	-2.84
(continued)	11/6/2017	51.25	41.56	-10.31
	11/10/2017		40.85	-9.60
	11/16/2017		39.09	-7.84
	11/17/2017		38.38	-7.13
	11/20/2017		37.89	-6.64
	11/29/2017		34.71	-3.46
	12/5/2017		34.03	-2.78
	12/8/2017		33.28	-2.03
	12/18/2017		32.55	-1.30
	4/14/2017		12.72	18.44
	4/17/2017		12.81	18.35
	4/18/2017		20.08	11.08
	4/19/2017		16.11	15.05
	4/27/2017		35.40	-4.24
	5/4/2017		36.64	-5.48
	6/2/2017		43.29	-12.13
	6/6/2017		43.37	-12.21
	6/13/2017		44.30	-13.14
τα 4	6/27/2017	31.16	35.32	-4.16
1/1-4	6/30/2017	51.10	34.90	-3.74
	7/7/2017		46.29	-15.13
	7/14/2017		40.44 4	-9.28 ⁴
	7/17/2017		42.35	-11.19
	7/18/2017		41.79	-10.63
	7/19/2017		41.61	-10.45
	7/20/2017		41.49	-10.33
	7/31/2017		41.39	-10.23
	8/9/2017		41.23	-10.07
	8/18/2017		41.99	-10.83

Location	Monitoring Date ¹	Top of Casing Elevation (feet NAVD88) ²	Depth to Water (feet) ³	Water Level Elevation (feet NAVD88) ²
	8/23/2017		39.64	-8.48 ⁵
	8/24/2017		39.41	-8.25
	8/30/2017		39.48	-8.32
	9/12/2017		39.62	-8.46
	9/27/2017		39.79	-8.63
	9/29/2017		38.74	-7.58
	10/5/2017		38.74	-7.58
	10/24/2017		32.53	-1.37
	10/25/2017		32.81	-1.65
	10/26/2017		35.17	-4.01
IA-4	10/27/2017	31.16	35.31	-4.15
(continued)	10/30/2017	51110	31.74	-0.58
	10/31/2017		31.78	-0.62
	11/6/2017		30.51	0.65
	11/10/2017		30.80	0.36
	11/16/2017		28.99	2.17
	11/17/2017		28.93	2.23
	11/20/2017		27.66	3.50
	11/29/2017		26.03	5.13
	12/5/2017		25.32	5.84
	12/8/2017		24.91	6.25
	12/18/2017		24.22	6.94

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NOTES:

¹Interim Action System pumping began April 17, 2017 with pumping from Interim Action well IA-2. Pumping from all four Interim Action wells began April 19, 2017 (see Table 1).

NAVD88 = North American Vertical Datum of 1988

²In feet above mean sea level.

³In feet below top of well casing.

⁴Total system discharge adjusted from approximately 290 gallons per minute (gpm) to about 180 gpm starting July 14, 2017.

⁵Total system discharge adjusted from approximately 180 gpm to about 160 gpm starting August 23, 2017.

Table 3HVOC Analytical Results for Groundwater Samples700 Dexter HVOC Plume Interim ActionSeattle, WashingtonFarallon PN: 397-044

			Analytical Results (micrograms per liter) ¹					
Sample Location	Sample Date	Sample Identification	РСЕ	ТСЕ	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Vinyl Chloride	
	3/24/2017	F-MW-131-032417	< 0.20	< 0.20	39	< 0.20	< 0.20	
FMW-131	6/23/2017	FMW-131_062317	< 0.20	< 0.20	3.6	< 0.20	0.26	
	12/18/2017	FMW-131-121817	< 0.20	< 0.20	0.61	< 0.20	< 0.20	
EMW 2D	3/24/2017	F-MW-3D-032417	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
FMW-3D	6/23/2017	FMW-3D_062317	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
MTCA Cleanup Levels for Groundwater ²			5	5	16³	160 ³	0.2	

NOTES:

Results in **bold** denote concentrations exceeding applicable cleanup levels.

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

¹Analyzed by U.S. Environmental Protection Agency Method 8260C.

²Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Cleanup Levels for Groundwater,

Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013, unless otherwise noted.

³Washington State Model Toxics Control Act Cleanup Regulation Cleanup Levels and Risk Calculations, Standard Method B Values for Groundwater, https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx

HVOC = halogenated volatile organic compound

PCE = tetrachloroethene

TCE = trichloroethene

Table 4HVOC Analytical Results for Wastewater Samples700 Dexter HVOC Plume Interim ActionSeattle, WashingtonFarallon PN: 397-044

				Analytical Results (micrograms per liter) ¹				
Sample Location	Sampled By	Sample Date	Sample Identification	РСЕ	ТСЕ	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Vinyl Chloride
	1	1	Influent to Wastew	ater Treatment Sys	tem from Interim A	Action System		
INF	Farallon	4/17/2017	INF-041717	< 0.40	< 0.40	39	< 0.40	20
INF	Farallon	4/17/2017	INF2-041717	< 0.40	< 0.40	42	< 0.40	25
INF	Farallon	4/19/2017	INF-041917	< 0.40	< 0.40	41	< 0.40	27
INF	Farallon	4/27/2017	INF-042717	< 0.40	< 0.40	52	< 0.40	39
INF	Farallon	5/4/2017	INF-050417	< 0.20	< 0.20	22	< 0.20	6.1
INF	Farallon	5/12/2017	INF_051217	< 0.20	< 0.20	37	< 0.20	32
INF	Farallon	5/18/2017	INF-051817	< 0.20	< 0.20	39	< 0.20	33
INF	Farallon	5/23/2017	INF-052317	< 0.40	< 0.40	36	< 0.40	35
INF	Farallon	6/2/2017	INF-060217	< 0.40	< 0.40	41	< 0.40	35
INF	Farallon	6/15/2017	INF_061517	< 0.40	< 0.40	49	< 0.40	41
INF	Farallon	6/27/2017	INF-062717	< 0.40	< 0.40	38	< 0.40	39
INF	Farallon	7/7/2017	INF-070717	< 0.40	< 0.40	49	< 0.40	32
INF	Farallon	7/14/2017	INF-071417	< 0.40	< 0.40	50	< 0.40	25
INF	Farallon	7/20/2017	INF-072017	< 0.40	< 0.40	52	< 0.40	32
INF	Farallon	7/31/2017	INF-073117	< 0.40	< 0.40	46	< 0.40	23
INF	Farallon	8/9/2017	INF-080917	< 0.20	< 0.20	50	< 0.20	30
INF	Farallon	8/18/2017	INF-081817	< 0.40	< 0.40	43	< 0.40	24
INF	Farallon	8/30/2017	INF-083017	< 0.40	< 0.40	42	< 0.40	24
INF	Farallon	9/12/2017	INF-091217	< 0.40	< 0.40	48	< 0.40	24
INF	Farallon	9/27/2017	INF-092717	< 0.40	< 0.40	44	< 0.40	23
INF	Farallon	10/5/2017	INF-100517	< 0.40	< 0.40	48	< 0.40	25
INF	Farallon	10/24/2017	INF-102417	< 0.40	< 0.40	72	< 0.40	47
INF	Farallon	12/18/2017	INF-121817	< 0.40	< 0.40	66	< 0.40	26
$\frac{1}{1} = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 =$				160 ³	0.2			

Table 4HVOC Analytical Results for Wastewater Samples700 Dexter HVOC Plume Interim ActionSeattle, WashingtonFarallon PN: 397-044

				Analytical Results (micrograms per liter) ¹						
Sample Location	Sampled By	Sample Date	Sample Identification	PCE Effluent - East Ae	TCE ration Tank	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Vinyl Chloride		
EFF E	Farallon	4/17/2017	EFF1-041717	< 0.20	< 0.20	23	< 0.20	9,3		
EFF E	Farallon	4/19/2017	EFF1-041917	< 0.20	< 0.20	13	< 0.20	2.9		
EFF E	Farallon	4/27/2017	EFF1-042717	< 0.20	< 0.20	28	< 0.20	8.7		
EFF E	Farallon	5/4/2017	EFF-E-050417	< 0.20	< 0.20	25	< 0.20	8.1		
EFF_E	Farallon	5/12/2017	EFF_E_051217	< 0.20	< 0.20	18	< 0.20	5.7		
EFF_E	Farallon	5/18/2017	EFFE-051817	< 0.20	< 0.20	19	< 0.20	6.2		
EFF_E	Farallon	5/23/2017	EFF-E-052317	< 0.20	< 0.20	17	< 0.20	6.5		
EFF_E	Farallon	6/2/2017	EFF-E-060217	< 0.20	< 0.20	22	< 0.20	7.5		
EFF_E	Farallon	6/15/2017	EFF_E_061517	< 0.20	< 0.20	25	< 0.20	8.1		
EFF_E	Farallon	6/27/2017	EFF-E-062717	< 0.20	< 0.20	17	< 0.20	5.8		
EFF_E	Farallon	7/7/2017	EFF-E-070717	< 0.20	< 0.20	25	< 0.20	6.5		
EFF_E	Farallon	7/14/2017	EFF-E-071417	< 0.20	< 0.20	13	< 0.20	2.2		
EFF_E	Farallon	7/20/2017	EFF-E-072017	< 0.20	< 0.20	21	< 0.20	4.8		
EFF_E	Farallon	7/31/2017	EFF-E-073117	< 0.20	< 0.20	19	< 0.20	3.8		
EFF_E	Farallon	8/9/2017	EFF-E-080917	< 0.20	< 0.20	19	< 0.20	3.9		
EFF_E	Farallon	8/18/2017	EFF-E-081817	< 0.20	< 0.20	22	0.69	2.9		
EFF_E	Farallon	8/30/2017	EFF-E-083017	< 0.20	< 0.20	14	1.2	2.1		
EFF_E	Farallon	9/12/2017	EFF-E-091217	< 0.20	< 0.20	17	< 0.20	2.9		
EFF_E	Farallon	9/27/2017	EFF-E-092717	< 0.20	< 0.20	16	< 0.20	2.9		
EFF_E	Farallon	10/5/2017	EFF-E-100517	< 0.20	< 0.20	16	< 0.20	2.8		
EFF_E	Farallon	10/24/2017	EFF-E-102417	< 0.20	< 0.20	21	< 0.20	4.6		
MTCA Clean	up Levels for	Groundwater ²		5	5	16³	160 ³	0.2		

Table 4HVOC Analytical Results for Wastewater Samples700 Dexter HVOC Plume Interim ActionSeattle, WashingtonFarallon PN: 397-044

				Analytical Results (micrograms per liter) ¹						
Sample Location	Sampled By	Sample Date	Sample Identification	РСЕ	TCE	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Vinyl Chloride		
Effluent - West Aeration Tank										
EFF_W	Farallon	4/17/2017	EFF2-041717	< 0.20	< 0.20	17	< 0.20	3.9		
EFF_W	Farallon	4/19/2017	EFF2-041917	< 0.20	< 0.20	15	< 0.20	3.1		
EFF_W	Farallon	4/27/2017	EFF2-042717	< 0.20	< 0.20	17	< 0.20	3.8		
EFF_W	Farallon	5/4/2017	EFF-W-050417	< 0.20	< 0.20	20	< 0.20	5.5		
EFF_W	Farallon	5/12/2017	EFF_W_051217	< 0.20	< 0.20	14	< 0.20	4.0		
EFF_W	Farallon	5/18/2017	EFFW-051817	< 0.20	< 0.20	14	< 0.20	3.8		
EFF_W	Farallon	5/23/2017	EFF-W-052317	< 0.20	< 0.20	13	< 0.20	4.1		
EFF_W	Farallon	6/2/2017	EFF-W-060217	< 0.20	< 0.20	15	< 0.20	4.1		
EFF_W	Farallon	6/15/2017	EFF_W_061517	< 0.20	< 0.20	17	< 0.20	4.8		
EFF_W	Farallon	6/27/2017	EFF-W-062717	< 0.20	< 0.20	10	< 0.20	3.0		
EFF_W	Farallon	7/7/2017	EFF-W-070717	< 0.20	< 0.20	16	< 0.20	3.6		
EFF_W	Farallon	7/14/2017	EFF-W-071417	< 0.20	< 0.20	13	< 0.20	1.4		
EFF_W	Farallon	7/20/2017	EFF-W-072017	< 0.20	< 0.20	20	< 0.20	4.4		
EFF_W	Farallon	7/31/2017	EFF-W-073117	< 0.20	< 0.20	13	< 0.20	2.0		
EFF_W	Farallon	8/9/2017	EFF-W-080917	< 0.20	< 0.20	20	< 0.20	4.1		
EFF_W	Farallon	8/18/2017	EFF-W-081817	< 0.20	< 0.20	10	1.2	1.4		
EFF_W	Farallon	8/30/2017	EFF-W-083017	< 0.20	< 0.20	10	0.94	1.3		
EFF_W	Farallon	9/12/2017	EFF-W-091217	< 0.20	< 0.20	12	< 0.20	1.9		
EFF_W	Farallon	9/27/2017	EFF-W-092717	< 0.20	< 0.20	16	< 0.20	2.8		
MTCA Clear	up Levels for	Groundwater ²		5	5	16 ³	160 ³	0.2		

Table 4 HVOC Analytical Results for Wastewater Samples 700 Dexter HVOC Plume Interim Action Seattle, Washington

Farallon PN: 397-044

				Analytical Results (micrograms per liter) ¹						
Sample			Sample			cis-1,2-	trans-1,2-			
Location	Sampled By	Sample Date	Identification	PCE	TCE	Dichloroethene	Dichloroethene	Vinyl Chloride		
Effluent - West Aeration Tank (continued)										
EFF_W Farallon 10/5/2017 EFF-W-100517 < 0.20 < 0.20 11							< 0.20	1.7		
EFF_W	Farallon	10/24/2017	EFF-W-102417	< 0.20	< 0.20	22	< 0.20	4.9		
MTCA Clean	up Levels for	Groundwater ²		5	5	16 ³	160 ³	0.2		

NOTES:

Results in **bold** denote concentrations exceeding applicable cleanup levels.

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

¹Analyzed by U.S. Environmental Protection Agency Method 8260C.

²Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Cleanup Levels for Groundwater,

Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013, unless otherwise noted.

³MTCA Cleanup Levels and Risk Calculations, Standard Method B Values for Groundwater, https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx

HVOC = halogenated volatile organic compound PCE = tetrachloroethene

TCE = trichloroethene

P:\397 Vulcan\397044 700 Dexter HVOC Plume Interim Action\Reports\Completion Report\Tables\IA Completion Rpt tbls

APPENDIX A INTERCEPTION WELL DESIGN

INTERIM ACTION COMPLETION REPORT

Groundwater Interception System 700 Dexter HVOC Plume Interim Action Block 37 Property 630 Westlake Avenue North Seattle, Washington

Farallon PN: 397-044

NOTES:

1) Overview: The Interim Action Interception Wells proposed in this plan will be installed for control of the 700 Dexter HVOC Plume. Geoengineers, with input from Farallon, evaluated the 700 Dexter HVOC Plume and hydrogeologic conditions and Farallon provided Middour Consulting LLC with the number and location of the interception wells, the well screen interval, and pumping rates to provide plume control, to the extent practicable.

2) Interception wells shall be constructed as "resource protection wells" ("remediation wells") per WAC 173-160 with a design life of at least 3 years.

3) For bidding purposes assume and/or provide the following:

- Provide proposed drilling method and equipment
- Provide proposed well development method(s)
- Provide power requirements for submersible turbine pumps
- Assume a minimum of 4 hrs for well development per well
- Assume 400 lineal feet of 8-inch-diameter header pipe
- Assume 480V, 3-phase power drop on site
- 4) Refer to Figure 2 for a plan view layout of the interception wells.
- 5) Refer to Figure 3 for details regarding well construction and installation details.





FIGURE 1 Construction Notes

INTERIM ACTION INTERCEPTION WELL PLAN Seattle, WA Project No. 16048001.01 November 2, 2016





Project No. 16048001.01 | November 2, 2016



NOTES:

Interim Action Interception Wells: Boreholes shall be drilled using bucket auger or rotary (air or wash) drilling methods and should be a minimum of 12-inch-diameter. Well casings and screen should be a minimum of 6-inch diameter Schedule 40 PVC. The bottom of the wells should be constructed to elevation -62 feet. The bottom 60 feet of the well should be constructed with well screen and based on the visual descriptions from the soil boring logs, well screens should consist of 30-slot screen size. The proposed locations of the interception wells are provided on Figure 1 and well construction details are shown on this figure.

Well Screen: The slot size shall be 0.030 and shall consist of a minimum of 17 in² of open area per lineal foot of well screen.

Sand Pack: The sand pack shall consist of a gradation similar to or in between a 16 x 30 sand or 12 x 20 sand. Based on previous projects with similar aquifer soils, this sand pack in combination with 30-slot well screen should optimize retention of the formation and provide the necessary well yield. The gradations of the proposed sand packs are listed in the table below. Well and seal construction shall be consistent with WAC 173-160.

Well Head Completion: Well head constructed to allow for manual water level measurements and/or pressure transducer installation via minimum 1-inch-diameter PVC drop tube installed to elevation -52 feet. Assume above grade well completion with below grade header pipe (trenching to be provided by others).

Development: Each interception well shall be developed upon completion. Development methods shall cause groundwater to flow into and out of the well screen; all sediment accumulated in the bottom of the well shall be removed. Development data shall be documented to demonstrate that additional development would produce limited improvement.

Submersible Turbine Pumps: Pumps shall be capable of providing up to 80 gpm under 70 feet of total dynamic head (TDH).

Header and Conveyance Piping: The main header and conveyance piping shall be constructed using a minimum of 8-inch-diameter PVC or HDPE pipe. The piping configuration should be coordinated with Farallon and the water treatment contractor. Assume above grade well completion with below grade header pipe (trenching to be provided by others).

Investigation-Derived Wastes (IDW): IDW such as drill cuttings and waste water generated during development shall be on-site in appropriately labeled containers until profiled for disposal or treatment by others.

Power Supply: To be determined with design finalization.

Sand Pack Gradations

Sieve Size	Gi	rain Size	16	x 30	12 x 20	
No.	(mm)	(thousandths)	% Finer	% Retained	% Finer	% Retained
No. 12	1.68	66.1	99	1	96	4
No. 16	1.19	46.9	94	6	20	80
No. 20	0.841	33.1	22	78	1	99
No. 30	0.595	23.4	3	97		



FIGURE 3 Interception Well Construction Details

INTERIM ACTION INTERCEPTION WELL PLAN Seattle, WA Project No. 16048001.01 November 2, 2016

APPENDIX B INTERCEPTION WELL CONSTRUCTION LOGS

INTERIM ACTION COMPLETION REPORT

Groundwater Interception System 700 Dexter HVOC Plume Interim Action Block 37 Property 630 Westlake Avenue North Seattle, Washington

Farallon PN: 397-044



USCS Classification and Graphic Legend

Major Divisions	USCS Graphic Symbol	USCS Letter Symbol	Lithologic Description
-----------------	---------------------	--------------------	------------------------

 $\overline{V}, \overline{V}, \overline{\nabla}, \overline{\nabla}, \overline{V}, \overline{V}$

Coarse- Grained Soil (More than 50% of material is larger than No. 200 sieve	GRAVEL AND GRAVELLY SOIL (More than 50% of coarse fraction retained on No. 4 sieve)	CLEAN GRAVEL (Little		GW	Well graded GRAVEL, well graded GRAVEL with sand
		or no lines)		GP	Poorly graded GRAVEL, GRAVEL with sand
		GRAVEL WITH FINES (Appreciable amount of fines)		GP-GM	Poorly graded GRAVEL - GRAVEL with sand and silt
				GM	Silty GRAVEL
size)			⊠, , ⊠, ,	GC	Clayey GRAVEL
	SAND AND	CLEAN SAND (Little or		SW	Well graded SAND
	SOIL (More than 50% of			SP	Poorly graded SAND
	coarse	SAND WITH FINES	/.//. /.//.	SP-SM	Poorly graded SAND - silty SAND
	passed through No.	fines)		SM	Silty SAND
	4 sieve)			SC	Clayey SAND
				SM-ML	SILT - Silty SAND
Fine- Grained	SILT AND			ML	SILT
Soil (More than 50%	limit less than 50)		<u>I</u> II	CL	CLAY
of material is smaller				OL	Organic SILT
than No. 200 sieve	SILT AND CLAY (Liquid limit greater than 50)			MH	Inorganic SILT
size)				СН	Inorganic CLAY
			\sim	ОН	Organic CLAY
		Highly Organic Soil	⊥⊥ ^{⊥⊥} .	PT	Peat
OTHER MATERIALS	PAVEMENT			AC	Asphalt concrete
				СО	Concrete
	OTHER		7	RK	Bedrock
				WD	Wood Debris
			<u> </u>	DB	Debris (Miscellaneous)
				PC	Portland cement

	Sample Interval	Legend		Solid line indicates sharp contact between units well defined.
G	Grab Sample Interval	Cement Grout		Dashed line indicates gradational contact between units.
Ŧ	Water level at time of drilling	Pontonito	feet bgs = f	eet below ground surface
	Water level at time of campling	Dentonite	NE = Not E	ncountered
	water lever at time of sampling		NA = Not Applicable	
		Sand Pack	PID = Phote	oionization Detector
	Blank Casing		PN = Project Number	
	Screened Casing	Well Cap	*ppm = par isobutylene USCS = Ur	ts per million total organic vapors in equivalents using a 10.6 electron volt lamp ified Soil Classification System

E:\Forms\Boilerplates\LogPlot\Lithology\Coverpage
		FARALLON CONSULTING	Log of Boring: IA-1					j: IA-1		Ρ	age 1 of 6	
Clic Pro Loc Far	ent ojec cati allo ggo	: Vulcan ct: Block 37 ion: Seattle, WA on PN: 397-044 ed By: Amber Bailey	Date/Time Started Date/Time Comple Equipment: Drilling Company: Drilling Foreman: Drilling Method:	Date/Time Started: 2/2/17 @ 0800 Sampler Typ Date/Time Completed: 2/7/17 @ 1615 Drive Hamme Equipment: BG-24 Depth of Wat Drilling Company: Malcom Drilling Total Boring Drilling Foreman: Shawn Blunt Total Well Depth Drilling Method: Hollow Stem Auger Depth		Campler Type: N/ Drive Hammer (Ibs Depth of Water ATI Total Boring Depth Total Well Depth (f	NA (lbs.): NA • ATD (ft bgs): ~ 40.0' epth (ft bgs): 94.0' th (ft bgs): 92.0'					
Depth (feet bgs.)	Sample Interval	Lithologic Descript	on	USCS USGS Graphic % Recovery Blow Counts 8/8/8 PID (ppm)					Sample ID	Boring/Well Construction Joc Werev Boring/Well Construction Details		
0_ 		0.0-20.0': Poorly graded SAND (90% sand, 10% gra medium sand, fine to coarse gravel, trace cobbles, Danny Parker of Malcom Drilling.	avel), fine to soil logged by	SP								Cement

Well Construction Information												
Monument Type: Stickup 4.0	rags	Filter Pack:	Glacier 80/700	Ground Surface Eleva	ation (it):	INA						
Casing Diameter (inches):	12"	Surface Seal:	Concrete	Top of Casing Elevati	on (ft):	NA						
Screen Slot Size (inches):	0.030"	Annular Seal:	Bentonite	Surveyed Location:	X:NA							
Screened Interval (ft bgs):	32.0-92.0'	Boring Abandonment:	NA		Y: NA							

		FARALLON CONSULTING	Log of Boring: IA-1								age 2 of 6	
Cli Pro Lo Fa	ent ojec cati rallo gge	: Vulcan ct: Block 37 ion: Seattle, WA on PN: 397-044 ed By: Amber Bailey	Date/Time Started Date/Time Comple Equipment: Drilling Company: Drilling Foreman: Drilling Method:	: eted:	2/2/1 2/7/1 BG-2 Malo Shav Hollo	17 @ 17 @ 24 com D wn Bl	0800 1615 Drilling unt em Au	S C T T ger	Sampler Type:NADrive Hammer (lbs.):NADepth of Water ATD (ft bgs):~ 40.0'Total Boring Depth (ft bgs):94.0'Total Well Depth (ft bgs):92.0'			NA ~ 40.0' 94.0' 92.0'
Depth (feet bgs.)	Sample Interval	Lithologic Descript	ion	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Bor Con E	ing/Well struction Details
20 -		20.0-25.0': Poorly graded SAND (90% sand, 10% g medium sand, fine to coarse gravel, trace cobbles, logged by Danny Parker of Malcom Drilling. 25.0-28.0': SILT (100% silt), soil logged by Danny F Drilling. 28.0-39.0': Sandy SILT (percentage unknown), gray Danny Parker of Malcom Drilling.	ravel), fine to wood debris, soil Parker of Malcom	SP								Cement Bentonite

	21	Well Construct	tion Information	Cround Surface Flow	tion (ft).	ΝΑ
Monument Type: Stickup 4.0	u'ags	Filter Pack:	Glacier 80/700	Ground Surface Eleva	ation (it):	NA
Casing Diameter (inches):	12"	Surface Seal:	Concrete	Top of Casing Elevati	on (ft):	NA
Screen Slot Size (inches):	0.030"	Annular Seal:	Bentonite	Surveyed Location:	X:NA	
Screened Interval (ft bgs):	32.0-92.0'	Boring Abandonment:	NA		Y:NA	

	FARALLON	Lo	Log of Boring: IA-1							
Clien Proje Loca Faral Logg	et: Vulcan ect: Block 37 tion: Seattle, WA Ion PN: 397-044 ged By: Amber Bailey	Date/Time Started: 2/2/17 @ Date/Time Completed: 2/7/17 @ Equipment: BG-24 Drilling Company: Malcom I Drilling Foreman: Shawn B Drilling Method: Hollow St			0800 1615 Drilling unt em Au	S C T T ger	NA ogs): ~ 40.0' gs): 94.0'): 92.0'			
Depth (feet bgs.) Sample Interval	Lithologic Descript	ion sc S	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/W Construc Details	Vell tion s
	40.0-94.0': Silty SAND (percentage unknown), fine gray, wet, soil logged by Danny Parker of Malcom D	to medium sand, SM Drilling.							PVC S	Sceen
Monum Casing	ent Type: Stickup 4.0' ags Filter Pac Diameter (inches): 12" Surface S	Il Construction Inform k: Glacier 80/ eal: Concrete	matic 700	on	Grou Top (nd Su of Cas	urface Elevation (ft) sing Elevation (ft):):	NA NA	

0.030"

32.0-92.0'

Annular Seal:

Boring Abandonment:

Bentonite

NA

Screen Slot Size (inches):

Screened Interval (ft bgs):

Surveyed Location:

X:NA

		FARALLON CONSULTING	Log of Boring: IA-1							Р	age 4 of 6	
Cli Pro Loo Fai	ent: ojec cati rallc gge	: Vulcan :: Block 37 on: Seattle, WA on PN: 397-044 ed By: Amber Bailey	Date/Time Started Date/Time Comple Equipment: Drilling Company: Drilling Foreman: Drilling Method:	Date/Time Started: 2/2/17 @ 0800 Sampler Type Date/Time Completed: 2/7/17 @ 1615 Drive Hamme Equipment: BG-24 Depth of Wate Drilling Company: Malcom Drilling Total Boring I Drilling Foreman: Shawn Blunt Total Well Dep Drilling Method: Hollow Stem Auger Depth of Wate		ampler Type: NA Drive Hammer (Ibs. Depth of Water ATI Total Boring Depth Total Well Depth (ff	NA Ibs.): NA ATD (ft bgs): ~ 40.0' pth (ft bgs): 94.0' h (ft bgs): 92.0'		NA ~ 40.0' 94.0' 92.0'			
Depth (feet bgs.)	Sample Interval	Lithologic Descripti	on	nscs	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Bor Con	ing/Well struction Details
55 -												Sand Pack

	Well Construc	tion Information	Ground Surface Flowetian (#)	NIA
Monument Type: Stickup 4.0' ags	Filter Pack:	Glacier 80/700	Ground Surface Elevation (ff):	INA
Casing Diameter (inches): 12"	Surface Seal:	Concrete	Top of Casing Elevation (ft):	NA
Screen Slot Size (inches): 0.030"	Annular Seal:	Bentonite	Surveyed Location: X:NA	
Screened Interval (ft bgs): 32.0-92	0' Boring Abandonment:	NA	Y: NA	

		FARALLON CONSULTING	Log of Boring: IA-1							Ρ	age 5 of 6	
Cli Pro Lo Fai	ent oje cat rall	:: Vulcan ct: Block 37 ion:Seattle, WA on PN: 397-044 ed By: Amber Bailey	Date/Time Started Date/Time Comple Equipment: Drilling Company: Drilling Foreman: Drilling Method:	Date/Time Started: 2/2/17 @ 0800 Sampler Type: Date/Time Completed: 2/7/17 @ 1615 Drive Hammer (Equipment: BG-24 Depth of Water Drilling Company: Malcom Drilling Total Boring De Drilling Foreman: Shawn Blunt Total Well Depth Drilling Method: Hollow Stem Auger Depth of Water		Campler Type: N Drive Hammer (Ibs Depth of Water AT Total Boring Depth Total Well Depth (f	A .): D (ft bg n (ft bgs):	gs): is): :	NA ~ 40.0' 94.0' 92.0'			
Depth (feet bgs.)	Sample Interval	Lithologic Descripti	on	nscs	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Bor Con E	ing/Well struction Details
70 - 75 - 80 - 85 -												Sand Pack

	0	Well Construct	tion Information	Cround Surface Elevation (ft)	NIA
Monument Type: Stickup 4.	0° ags	Filter Pack:	Glacier 80/700	Ground Surface Elevation (it):	INA
Casing Diameter (inches):	12"	Surface Seal:	Concrete	Top of Casing Elevation (ft):	NA
Screen Slot Size (inches):	0.030"	Annular Seal:	Bentonite	Surveyed Location: X:NA	
Screened Interval (ft bgs):	32.0-92.0'	Boring Abandonment:	NA	Y: NA	

	FARALLON CONSULTING		Log of Boring: IA-1							Pa	age 6 of 6
Clic Pro Loc Fai	ent ojeo cat rallo ggo	:: Vulcan ct: Block 37 ion: Seattle, WA on PN: 397-044 ed By: Amber Bailey	Date/Time Started: Date/Time Completed: Equipment: Drilling Company: Drilling Foreman: Drilling Method:	2/2/1 2/7/1 BG-2 Malco Shaw Hollo	7 @ 7 @ 4 om E /n Bl w St	0800 1615 Drilling Junt rem Au	s C 1 J ger	Sampler Type: NA Drive Hammer (Ibs. Depth of Water ATI Total Boring Depth Total Well Depth (ff): D (ft (ft b : bgs	bgs): - ogs): (s): (NA ~ 40.0' 94.0' 92.0'
Depth (feet bgs.)	Sample Interval	Lithologic Descripti	ion sc S	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Bori Cons D	ing/Well struction etails
85											Sand Pack Bentonite

Manuar Transa Stickur 4		Well Construct	tion Information	Ground Surface Elevat	tion (ft):	ΝΔ
Monument Type: Slickup 4.	Jays	Filter Pack:	Glacier 80/700			
Casing Diameter (inches):	12"	Surface Seal:	Concrete	Top of Casing Elevation	on (ft):	NA
Screen Slot Size (inches):	0.030"	Annular Seal:	Bentonite	Surveyed Location:	X:NA	
Screened Interval (ft bgs):	32.0-92.0'	Boring Abandonment:	NA		Y:NA	

		FARALLON	Log of Boring: IA-2									
		CONSULTING									Р	age 1 of 6
	ent	: Vulcan	Date/Time Started	d: atad:	2/2/1	7@ 7@	1050 1300	S	ampler Type: N	A		ΝΔ
	ojec	ct: Block 37	Equipment:	eleu.	BG-2	4	1500	D	epth of Water AT	.). D (ft bg	s):	~ 38.0'
			Drilling Company	:	Malco	om D	Drilling	Т	otal Boring Depth	n (ft bgs	5):	96.0'
га	and	Amber Deiley	Drilling Foreman: Drilling Method:		Snaw Hollo	/n Bi w St	unt em Au	ger I	otal wen Depth (i	t bys):		92.0
Lo	gge	ed By: Amber Balley			1							
Depth (feet bgs.)	Sample Interval	Lithologic Descripti	on	nscs	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Bor Con E	ing/Well struction Details
0_												
		0.0-15.0': Well-graded SAND with gravel (85% sand to coarse sand, fine to coarse gravel with cobbles, b	l, 15% gravel), fine prownish gray,	SW								
-		wet, no odor, no sheen, soil observed from auger cu	uttings.									
-												
-												
-												
5-	1											
-												
-												
-												
-	1											
10 -												Cement
-												
-												
-												
-												
15 -		45.0.20.0's Woll graded SAND with ait and gravel (0.3				
-		gravel, 10% silt), fine to medium sand, fine gravel, g no sheen, soil observed from auger cuttings.	jray, wet, no odor,	500-51								
					· · · · · · · · · · · · · · · · · · ·							
· -				•		. '						
Mon	ume	nt Type: Stickup 4.0' ags Filter Pac	I Construction I k: Glaci	I nforn ier 80/7	natio 700	n	Grou	nd Su	rface Elevation (f	t):	NA	
Casi Scre	ng D en S	Diameter (inches): 12" Surface So Slot Size (inches): 0.030" Annular S	eal: Conc				Top (Surv	of Cas veyed	ing Elevation (ft): Location: y. NA		NA	
Scre	enec	d Interval (ft bgs): 32.0-92.0' Boring Ab	andonment: NA	Unite				-	Y: NA			

Client: Vulcan Date/Time Started: Project: Block 37 Date/Time Complet	ed:	2/2/1 2/7/1 BG-2 Malco	7@ 7@	1050	s	. – N		
Location: Seattle, WALeapphoneFarallon PN: 397-044Drilling Company: Drilling Foreman: Drilling Method:Logged By: Amber BaileyDrilling Method:	Date/Time Started: 2 Date/Time Completed: 2 Equipment: B Drilling Company: M Drilling Foreman: S Drilling Method: H		2/2/17 @ 1050 2/7/17 @ 1300 BG-24 Malcom Drilling Shawn Blunt Hollow Stem Auger			ampler Type: N. rive Hammer (Ibs epth of Water AT otal Boring Depth otal Well Depth (f	4 .): D (ft bgs): I (ft bgs): t bgs):	NA ~ 38.0' 96.0' 92.0'
Depth (feet bgs.) Sample Interval Sample Interval	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	oring/Well nstruction Details
20 20.0-25.0°: Well-graded SAND with silt and gravel (70% sand, 20% gravel, 10% silt), fine to medium sand, fine gravel, gray, wet, no odor, no sheen, soil observed from auger cuttings. 25 25.0-28.0°: SILT (100% silt), gray, wet, no odor, no sheen, soil observed from auger cuttings, wood debris not observed. 26 25.0-28.0°: SILT (100% silt), gray, wet, no odor, no sheen, soil observed from auger cuttings, wood debris not observed. 26 28.0-31.0°: SILT with sand (70% silt, 30% sand), fine to medium sand, trace gravel, gray, wet, no odor, no sheen, soil observed from auger cuttings. 30 31.0-35.0°: Silty SAND (60% sand, 40% silt), fine to coarse sand, gray, wet, no odor, no sheen, soil observed from auger cuttings.	W-SM ML SM				0.7			Cement Bentonite

Monument Type: Stickup 4.0 Casing Diameter (inches): Screen Slot Size (inches):)' ags 12" 0.030"	Well Construct Filter Pack: Surface Seal: Annular Seal:	tion Information Glacier 80/700 Concrete Bentonite	Ground Surface Eleva Top of Casing Elevati Surveyed Location:	ation (ft): on (ft): X:NA	NA NA
Screened Interval (ft bgs):	32.0-92.0'	Boring Abandonment:	NA		Y: NA	

		FARALLON CONSULTING	Lo	og o	of I	Bor	ing	j: IA-2		Pa	ge 3 of 6
Clic Pro Loc Far	ent ojec cati callo ggo	: Vulcan ct: Block 37 ion: Seattle, WA on PN: 397-044 ed By: Amber Bailey	Date/Time Started: Date/Time Completed: Equipment: Drilling Company: Drilling Foreman: Drilling Method:	2/2/ [/] 2/7/ [/] BG-2 Malo Shav Hollo	17 @ 17 @ 24 com E wn Bl ow St	1050 1300 Drilling lunt em Au	s C T J ger	Sampler Type: NA Drive Hammer (Ibs. Depth of Water ATE Total Boring Depth Total Well Depth (ft): D (ft (ft b bgs	N bgs): ~ pgs): 9 ;): 9	IA 38.0' 6.0' 2.0'
Depth (feet bgs.)	Sample Interval	Lithologic Descript	ion SS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Bori Cons De	ng/Well truction etails
35 40 45 		35.0-39.0': SILT with sand (70% silt, 30% sand), fir trace gravel, gray, saturated, no odor, no sheen, so auger cuttings. 40.0-68.0': Well-graded SAND with silt (90% sand, coarse sand, wet, gray, no odor, no sheen, soil obs cuttings.	ne to medium sand, il observed from 10% silt), fine to erved from auger				0.1				PVC Sceen ▼

Monument Type: Stickup 4 ()' 206	Well Construct	tion Information	Ground Surface Eleva	ation (ft).	NA
Casing Diameter (inches):	12"	Filter Pack:	Glacier 80/700	Top of Casing Elevati	on (ft)	NA
Screen Slot Size (inches):	0.030"	Surface Seal: Annular Seal:	Concrete	Surveyed Location:	X·NA	
Screened Interval (ft bgs):	32.0-92.0'	Boring Abandonment:	NA	·	Y: NA	

		FARALLON	G Log of Boring: IA-2									lana 4 of 6
Clic Pro Loc Fai	ent ojec cat rallo ggo	: Vulcan ct: Block 37 ion: Seattle, WA on PN: 397-044 ed By: Amber Bailey	Date/Time Started: 2/2/17 Date/Time Completed: 2/7/17 Equipment: BG-24 Drilling Company: Malcon Drilling Foreman: Shawn Drilling Method: Hollow			2/17 @ 1050Sampler Type: NA7/17 @ 1300Drive Hammer (Ibs.):NAG-24Depth of Water ATD (ft bgs):~ 38.0'alcom DrillingTotal Boring Depth (ft bgs):96.0'mawn BluntTotal Well Depth (ft bgs):92.0'						
Depth (feet bgs.)	Sample Interval	Lithologic Descripti	on	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boı Con E	ring/Well struction Details
								0.3				Sand Pack
Mon Casi Scre Scre	ume ng D en S enec	Well nt Type: Stickup 4.0' ags piameter (inches): 12" silot Size (inches): 0.030" Annular Set Interval (ft bgs): 32.0-92.0'	l Construction Infe c: Glacier eal: Concret eal: Bentoni andonment: NA	orm 80/7 e te	oo 00	n	Grou Top (Surv	nd Su of Cas reyed	Inface Elevation (ft) sing Elevation (ft): Location: X:NA Y:NA	:	NA NA	

		FARALLON	G Log of Boring: IA-2									
											F	age 5 of 6
	ent	······································	Date/Time Started	l:	2/2/1	7@	1050	S	ampler Type: N	۹		N 14
Pro	ojeo	ct: Block 37	Date/Time Comple Equipment:	eted:	2/7/1 BG-2	7@ 4	1300		Prive Hammer (lbs Depth of Water AT	.): D (ft	oas):	NA ~ 38.0'
Lo	cat	ion: Seattle, WA	Drilling Company:	:	Malc	om D	Drilling	т	otal Boring Depth	(ft b	gs):	96.0'
Far	all	on PN: 397-044	Drilling Foreman:		Shav	vn Bl	unt om Au	T	otal Well Depth (f	t bgs):	92.0'
Lo	gg	ed By: Amber Bailey	Drining Method.							1 1		
Depth (feet bgs.)	Sample Interval	Lithologic Descripti	on	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Bor Con [ring/Well struction Details
-		68.0-70.0': Silty SAND (60% sand, 40% silt), fine to brown, wet, no odor, no sheen, soil observed from a	coarse sand, light auger cuttings.	SM				0.4				
70	-	70.0-77.0': Silty SAND (80% sand, 20% silt), fine to brownish gray, saturated, no odor, no sheen, soil ob cuttings.	coarse sand, oserved from auger	SM				0.2				Sand Pack
- 75 -												
-	-	77.0-79.0': Well-graded GRAVEL with sand (80% gu fine to coarse gravel, fine to coarse sand, gray, wet sheen, soil observed from auger cuttings.	ravel, 20% sand), , no odor, no	GW				0.4				
80 –		79.0-81.0': Silty SAND (80% sand, 20% silt), fine to brownish gray, saturated, no odor, no sheen, soil ob cuttings.	coarse sand, oserved from auger	SM				0.4				PVC Sceen
-		81.0-84.0': Well-graded GRAVEL with sand (80% gr fine to coarse gravel, fine to coarse sand, gray, wet, sheen, soil observed from auger cuttings.	ravel, 20% sand), , no odor, no	GW				0.3				
85		84.0-96.0': Silty SAND (80% sand, 20% silt), fine to gravel, gray, saturated, no odor, no sheen, soil obse	coarse sand, trace erved from auger	SM				0.2				
Mon	ume	nt Type: Stickup 4.0' ags Filter Pac		nforn	natio	n	Grou	ind Su	Irface Elevation (f	t):	NA	

No Otislaur 4	01	well Construct	tion information	Ground Surface Flow	ation (ft):	ΝΔ
Monument Type: Stickup 4.	u ags	Filter Pack:	Glacier 80/700	Giouna Sunace Eleva	ation (it).	NA .
Casing Diameter (inches):	12"	Surface Seal:	Concrete	Top of Casing Elevati	on (ft):	NA
Screen Slot Size (inches):	0.030"	Annular Seal:	Bentonite	Surveyed Location:	X:NA	
Screened Interval (ft bgs):	32.0-92.0'	Boring Abandonment:	NA		Y:NA	

		FARALLON CONSULTING	Log of Boring: IA-2							Pa	age 6 of 6
Clic Pro Loc Fai	ent ojec cati rallo gge	: Vulcan ct: Block 37 ion: Seattle, WA on PN: 397-044 ed By: Amber Bailey	Date/Time Started: Date/Time Completed: Equipment: Drilling Company: Drilling Foreman: Drilling Method:	2/2/1 2/7/1 BG-2 Malc Shav Hollo	7 @ 7 @ 24 om [vn Bl ow St	1050 1300 Drilling unt em Au	s C T T ger	Sampler Type: N/ Drive Hammer (Ibs. Depth of Water ATI Total Boring Depth Total Well Depth (fi): D (ft (ft b : bgs	bgs): / ogs): (s): (NA ~ 38.0' 96.0' 92.0'
Depth (feet bgs.)	Sample Interval	Lithologic Descripti	on SS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Bor Cons D	ing/Well struction etails
85		cuttings.									Sand Pack Bentonite

	01	Well Construct	tion Information	Ground Surface Floyed	tion (ft)	ΝΔ
Monument Type: Stickup 4.0	Jags	Filter Pack:	Glacier 80/700	Giouna Sunace Eleva		
Casing Diameter (inches):	12"	Surface Seal:	Concrete	Top of Casing Elevation	on (ft):	NA
Screen Slot Size (inches):	0.030"	Annular Seal:	Bentonite	Surveyed Location:	X:NA	
Screened Interval (ft bgs):	32.0-92.0'	Boring Abandonment:	NA		Y: NA	

		FARALLON	G Log of Boring: IA-3									
	•	. Vulcan	Data (Tima Otaria)		2/2/4	7 @	1150		N		P	age 1 of 6
Pro	ent Diec	t: Block 37	Date/Time Started	a: leted:	2/3/1	7@ 7@	1300	5	Jampier Type: N Inive Hammer (Ibs	A 5.):		NA
Lo	cati	ion: Seattle, WA	Equipment:		BG-2	.4		C 	Pepth of Water AT	D (ft l	bgs):	~ 38.0'
Far	allo	on PN: 397-044	Drilling Company	/: :	Malco	om D vn Bl	orilling unt	י ד	otal Boring Deptr	1 (ft b it bgs	gs): ;):	93.0' 92.0'
Lo	gge	ed By: Amber Bailey	Drilling Method:	-	Hollo	w St	em Au	ger		-	-	
Depth (feet bgs.)	Sample Interval	Lithologic Descripti	ion	nscs	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Bor Con D	ing/Well struction)etails
0_												
		 0.0-15.0": Well-graded SAND with gravel (80% sand silt), fine to coarse sand, fine to coarse gravel with o gray, wet, no odor, no sheen, soil observed from au 15.0-20.0": Well-graded SAND with silt and gravel (gravel, 10% silt), fine to medium sand, fine gravel, (no sheen, wood debris at 20.0" bgs, soil observed from au 	I, 15% gravel, 5% :obbles, brownish ger cuttings. 70% sand, 20% gray, wet, no odor, rom auger cuttings.	SW SW-SM				0.2				Cement
.		Wel	I Construction	Inforn	natio	n	Crow				NA	
Mon Casi	umei ng D	nt Type: Stickup 4.0' ags Filter Pacl viameter (inches): 12" Surface Su	k: Glac eal: Con	;ier 80/7 crete	700		Grou Top (of Cas	sing Elevation (f	ι): :	NA	
Scre	en S	lot Size (inches): 0.030" Annular S	eal: Bent	tonite			Surv	veyed	Location: X:NA	L		

32.0-92.0'

Boring Abandonment:

NA

		FARALLON CONSULTING	G Log of Boring: IA-3								age 2 of 6	
Cli Pro Lo Fa	ent ojec cat rallo ggo	: Vulcan ct: Block 37 ion: Seattle, WA on PN: 397-044 ed By: Amber Bailey	Date/Time Started Date/Time Comple Equipment: Drilling Company: Drilling Foreman: Drilling Method:	: eted:	2/3/17 @ 1150Sampler2/7/17 @ 1300Drive HaBG-24Depth ofMalcom DrillingTotal BoShawn BluntTotal WeHollow Stem Auger			Sampler Type: N Drive Hammer (Ibs Depth of Water AT Total Boring Depth Total Well Depth (f	Type: NA mmer (lbs.): NA Water ATD (ft bgs): ~ 38.0' ring Depth (ft bgs): 93.0' Il Depth (ft bgs): 92.0'			
Depth (feet bgs.)	Sample Interval	Lithologic Descript	ion	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Bor Con D	ing/Well struction Details
20 -		20.0-25.0': Silty SAND (70% sand, 30% silt), fine to gray, wet, no odor, no sheen, wood debris observed from auger cuttings. 25.0-26.0': SILT (100% silt), gray, wet, no odor, no debris not observed, soil observed from auger cuttin 26.0-33.0': Silty SAND (70% sand, 30% silt), fine to gray, wet, no odor, no sheen, soil observed from au 33.0-36.0': Silty SAND (80% sand, 20% silt), fine to wet, no odor, no sheen, soil observed from auger cu	medium sand, d, soil observed	SM ML SM				0.7				Cement
<u> </u>)Mol	Construction	nform	notic							

Manual Transa Stickup 4		Well Construc	tion Information	Ground Surface Eleve	ation (ft):	ΝΔ
Monument Type: Slickup 4.	J ags	Filter Pack:	Glacier 80/700	Top of Cooing Eleveti	anon (ff).	
Casing Diameter (inches):	12"	Surface Seal:	Concrete	Surveyed Leasting	on (it):	NA
Screen Slot Size (inches):	0.030"	Annular Seal:	Bentonite	Surveyed Location:	X:NA	
Screened Interval (ft bgs):	32.0-92.0'	Boring Abandonment:	NA		Y: NA	

	FARALLON	Lo	g o	of E	Bori	ing	j: IA-3		Р	age 3 of 6
Clier Proje Loca Fara	nt: Vulcan ect: Block 37 ation: Seattle, WA Ilon PN: 397-044 ged By: Amber Bailey	Date/Time Started: Date/Time Completed: Equipment: Drilling Company: Drilling Foreman: Drilling Method:	2/3/1 2/7/1 BG-2 Malco Shaw Hollo	7 @ 1 7 @ 1 4 om Dr vn Blu w Ste	150 300 illing nt m Aug	S C T T ger	Sampler Type: N/ Drive Hammer (Ibs. Depth of Water ATI Total Boring Depth Total Well Depth (fi): D (ft b (ft bg t bgs)	igs): is):	NA ~ 38.0' 93.0' 92.0'
Depth (feet bgs.)	Lithologic Descript	ion score	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Bor Con E	ing/Well struction Details
35 -						0.2				PVC Sceen
40	40.0-80.0': Well-graded SAND with silt (90% sand, coarse sand, wet, gray, no odor, no sheen, soil obs cuttings.	10% silt), fine to erved from auger				0.0				Sand Pack

Monument Type: Stickup 4.0)' ags 12"	Well Construct Filter Pack:	Glacier 80/700	Ground Surface Eleva	tion (ft):	NA
Screen Slot Size (inches):	0.030"	Surface Seal: Annular Seal:	Concrete Bentonite	Surveyed Location:	X: NA	
Screened Interval (ft bgs):	32.0-92.0'	Boring Abandonment:	NA		Y: NA	

		FARALLON CONSULTING		Lo	g o	of E	Bor	ing	j: IA-3		Р	age 4 of 6	
Cli Pro Loo Fai	ent: oject catio rallor ggec	Vulcan : Block 37 on:Seattle, WA o PN: 397-044 d By: Amber Bailey	Date/Time Started Date/Time Comple Equipment: Drilling Company: Drilling Foreman: Drilling Method:	: eted:	2/3/1 2/7/1 BG-2 Malco Shaw Hollo	7@ 7@ 24 om D vn Bl	1150 1300 Drilling unt em Au	S C T T ger	Campler Type: NA Drive Hammer (Ibs. Depth of Water ATI Total Boring Depth Total Well Depth (fi	NA Ibs.): NA ATD (ft bgs): ~ 38.0' pth (ft bgs): 93.0' n (ft bgs): 92.0'			
Depth (feet bgs.)	Sample Interval	Lithologic Descripti	on	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Bor Con D	ing/Well struction Details	
55 - - - - - - - - - - - - - - - - - - -								0.1				Sand Pack	

Manager 1 Tana Otialum 4.0		Well Construct	ion Information	Ground Surface Floyr	tion (ft):	NA
Monument Type: Stickup 4.0	ags	Filter Pack:	Glacier 80/700	Ground Surface Eleva	ation (it):	NA
Casing Diameter (inches):	12"	Surface Seal:	Concrete	Top of Casing Elevati	on (ft):	NA
Screen Slot Size (inches):	0.030"	Annular Seal:	Bentonite	Surveyed Location:	X:NA	
Screened Interval (ft bgs):	32.0-92.0'	Boring Abandonment:	NA		Y: NA	

		FARALLON	L	-0(g o	of E	Bor	ing	j: IA-3		F	lara E of 6	
Cli Pro Lo Fai	ent ojec cat rallo ggo	t: Vulcan ct: Block 37 ion: Seattle, WA on PN: 397-044 ed By: Amber Bailey	Date/Time Started:2/3/17 (2)Date/Time Completed:2/7/17 (2)Equipment:BG-24Drilling Company:MalcomDrilling Foreman:ShawnDrilling Method:Hollow 3			7 @ 7 @ 4 om D /n Bl w St	1150 1300 Drilling unt em Au	S C T T ger	Sampler Type: N/ Drive Hammer (Ibs. Depth of Water ATI Total Boring Depth Total Well Depth (fi): D (ft (ft k : bg:	NA bgs): ~ 38.0' pgs): 93.0' s): 92.0'		
Depth (feet bgs.)	Sample Interval	Lithologic Descript	ion	NSCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Bor Con E	ring/Well struction Details	
70 -		80.0-87.0': Well-graded SAND with gravel (85% sat fine to coarse sand, fine to coarse gravel, gray, sat sheen, soil observed from auger cuttings.	nd, 15% gravel), urated, no odor, no	SW				0.1				Sand Pack	
Mon Casi Scre	ume ng C en S	We Int Type: Stickup 4.0' ags Diameter (inches): 12" Slot Size (inches): 0.030"	Il Construction Inf k: Glacier eal: Concret eal: Bentoni	orm 80/7 te	natio ⁰⁰	'n	Grou Top (Surv	ind Su of Cas reyed	Irface Elevation (ft sing Elevation (ft): Location: X:NA):	NA NA		

32.0-92.0'

Boring Abandonment:

NA

		FARALLON CONSULTING	l	Lo	g o	of E	Bor	ing	j: IA-3		P	age 6 of 6
Clic Pro Loc Far	ent ojec cati rallo gge	: Vulcan ct: Block 37 ion: Seattle, WA on PN: 397-044 ed By: Amber Bailey	Date/Time Started: Date/Time Complete Equipment: Drilling Company: Drilling Foreman: Drilling Method:	ed:	2/3/1 2/7/1 BG-2 Malco Shaw Hollo	7 @ 7 @ 24 om D vn Bl w St	1150 1300 Drilling unt em Au	S C T T ger	Campler Type: NA Drive Hammer (Ibs. Depth of Water ATE Total Boring Depth Total Well Depth (ft):) (ft (ft b bgs	bgs): pgs): 9 s): 9	NA ~ 38.0' 93.0' 92.0'
Depth (feet bgs.)	Sample Interval	Lithologic Descripti	on	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Bor Con: D	ing/Well struction etails
85		90.0-93.0': Well-graded SAND with silt (90% sand, 1 medium sand, trace gravel, gray, saturated, no odor observed from auger cuttings.	10% silt), fine to , no sheen, soil	W-SM				0.0				Sand Pack Bentonite

Well Construction Information												
Monument Type: Slickup 4.0	ags	Filter Pack:	Glacier 80/700									
Casing Diameter (inches):	12"	Surface Seal:	Concrete	Top of Casing Elevation	on (ft):	NA						
Screen Slot Size (inches):	0.030"	Annular Seal:	Bentonite	Surveyed Location:	X:NA							
Screened Interval (ft bgs):	32.0-92.0'	Boring Abandonment:	NA		Y:NA							

		FARALLON CONSULTING		Lo	g o	of E	Bor	ing	j: IA-4		Р	age 1 of 6
Clic Pro Loc Far	ent ojec cati allo gge	: Vulcan ct: Block 37 ion: Seattle, WA on PN: 397-044 ed By: Amber Bailey	Date/Time Started Date/Time Comple Equipment: Drilling Company Drilling Foreman: Drilling Method:	Date/Time Started:2/7/17 @ 0930Sampler TypDate/Time Completed:2/7/17 @ 1500Drive HammEquipment:BG-24Depth of WaDrilling Company:Malcom DrillingTotal BoringDrilling Foreman:Shawn BluntTotal Well DDrilling Method:Hollow Stem Auger				ampler Type: N. Drive Hammer (Ibs Depth of Water AT Total Boring Depth Total Well Depth (f	A .): D (ft n (ft b t bgs	bgs): vgs): ;):	NA ~ 40.0' 93.0' 92.0'	
Depth (feet bgs.)	Sample Interval	Lithologic Descripti	ion	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Bor Con E	ing/Well struction Details
0_ 		0.0-15.0': Well-graded SAND with gravel (80% sand gray, wet, no odor, no sheen, soil observed from au 15.0-25.0': Well-graded SAND with silt and gravel (gravel, 10% silt), fine to medium sand, fine gravel, o hydrocarbon odor, no sheen, wood debris at 18.0' b from auger cuttings.	d, 15% gravel, 5% cobbles, brownish ger cuttings.	SW SW-SM				0.0				Cement
Monu Casil Scree	umei ng D en S	Well nt Type: Stickup 4.0' ags Filter Pack iameter (inches): 12" Surface Se Iot Size (inches): 0.030"	I Construction I k: Glaci eal: Conc eal: Bent	nforn ier 80/7 crete onite	natio 700	'n	Grou Top o Surv	ind Su of Cas reyed	Irface Elevation (f sing Elevation (ft): Location: X:NA	t):	NA NA	

32.0-92.0'

Boring Abandonment: NA

		FARALLON		Lo	g o	of E	Bor	ing	j: IA-4		_	
Cli Pro Loo Fai	ent ojec cat rallo ggo	: Vulcan ct: Block 37 ion: Seattle, WA on PN: 397-044 ed By: Amber Bailey	Date/Time Started Date/Time Comple Equipment: Drilling Company: Drilling Foreman: Drilling Method:	l: eted: :	2/7/1 2/7/1 BG-2 Malco Shaw Hollo	7 @ 7 @ 24 om D vn Bl w St	0930 1500 Drilling unt em Au	S C T T ger	Campler Type: NA Drive Hammer (Ibs. Depth of Water ATE Total Boring Depth Total Well Depth (ft):) (ft (ft bgs	bgs): •gs): •):	NA ~ 40.0' 93.0' 92.0'
Depth (feet bgs.)	Sample Interval	Lithologic Descript	ion	nscs	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Bor Con D	ing/Well struction)etails
		25.0-26.0': SILT (100% silt), gray, wet, no odor, no debris not observed, soil observed from auger cuttir 26.0-34.0': Silty SAND (60% sand, 40% silt), fine to gravel, gray, wet, slight hydrocarbon odor, no sheer from auger cuttings.	sheen, wood ngs. coarse sand, trace n, soil observed	ML				0.4				Cement
Mon Casi	ume ng D	Wel nt Type: Stickup 4.0' ags Filter Pac Diameter (inches): 12"	I Construction In k: Glaci eal: Conc	nforr ier 80/7 crete	natio 700	n	Grou Top	ind Su of Cas	Irface Elevation (ft sing Elevation (ft):):	NA NA	

Surveyed Location:

X:NA

Y: NA

Screen Slot Size (inches):

Screened Interval (ft bgs):

0.030"

32.0-92.0'

Annular Seal:

Boring Abandonment:

Bentonite

NA

		FARALLON CONSULTING	I	Lo	g o	of E	Bor	ing	j: IA-4		I	Page 3 of 6
Clie Pro Loc Far	ent ojec cat allo ggo	: Vulcan ct: Block 37 ion: Seattle, WA on PN: 397-044 ed By: Amber Bailey	Date/Time Started: Date/Time Complete Equipment: Drilling Company: Drilling Foreman: Drilling Method:	ed:	2/7/1 2/7/1 BG-2 Malco Shaw Hollo	7 @ 7 @ 4 om D /n Bl w St	0930 1500 Drilling unt em Au	S C T T ger	Campler Type: NA Drive Hammer (Ibs. Depth of Water ATE Total Boring Depth Total Well Depth (ft):) (ft (ft b bgs	NA bgs): ~ 40.0' bgs): 93.0' s): 92.0'	
Depth (feet bgs.)	Sample Interval	Lithologic Descript	on	NSCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Bo Cor I	ring/Well Instruction Details
35 40 45 		34.0-40.0': Silty SAND (75% sand, 25% silt), fine to gray, wet, no odor, no sheen, soil observed from au 40.0-83.0': Well-graded SAND with silt (90% sand, coarse sand, wet, gray, no odor, no sheen, soil obs cuttings.	medium sand, ger cuttings.	SM				0.3 0.1 0.1 1.0				PVC Sceen
Monu Casii	ume ng D	nt Type: Stickup 4.0' ags Filter Pac biameter (inches): 12" Surface S	I Construction In k: Glacier eal: Concre	forn 80/7	natio 700	'n	Grou Top	ind Su of Cas	Irface Elevation (ft)):	NA NA	

0.030"

32.0-92.0'

Annular Seal:

Boring Abandonment:

Bentonite

NA

Screen Slot Size (inches):

Screened Interval (ft bgs):

Surveyed Location:

X:NA

		FARALLON CONSULTING		Lo	g o	of E	Bor	ing	ng: IA-4 Page 4 of 6				
Cli Pro Lo Fa	ent: oject catio rallo gge	Vulcan t: Block 37 on: Seattle, WA n PN: 397-044 d By: Amber Bailey	Date/Time Started Date/Time Comple Equipment: Drilling Company: Drilling Foreman: Drilling Method:	: eted:	2/7/1 2/7/1 BG-2 Malco Shaw Hollo	7 @ 7 @ 4 om D vn Bli w Ste	0930 1500 Drilling unt em Au	S C T T ger	Campler Type: N Drive Hammer (Ibs Depth of Water AT Total Boring Depth Total Well Depth (f	۹ .): D (ft I ۱ (ft b t bgs	bgs): gs): ;):	NA ~ 40.0' 93.0' 92.0'	
Depth (feet bgs.)	Sample Interval	Lithologic Descripti	on	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Bor Con E	ing/Well struction Details	
60 -								2.1				Sand Pack	

Monument Type: Stickup 4.0' ags	Well Construc Filter Pack:	Glacier 80/700	Ground Surface Eleva	tion (ft):	NA
Screen Slot Size (inches): 0.030"	Surface Seal: Annular Seal: Boring Abandonmont:	Concrete Bentonite	Surveyed Location:	X : NA	10.
Screened Interval (it bgs): 32.0-92.0	Boring Abandonment:	INA		Y:NA	

	FAF) П N G		Lo	g o	of E	Bor	ing	j: IA-4		P	Page 5 of 6
Clien Proje Loca Faral	t: Vulcan ct: Block 37 tion:Seattle, W lon PN: 397-04 jed By: Amber		Date/Time Started Date/Time Compl Equipment: Drilling Company Drilling Foreman: Drilling Method:	d: eted: r:	2/7/1 2/7/1 BG-2 Malco Shaw Hollo	7@ 7@ 24 om D vn Bli w Sta	0930 1500 Prilling unt em Au	s C T J ger	Sampler Type: N/ Drive Hammer (Ibs. Depth of Water ATI Fotal Boring Depth Fotal Well Depth (fi): D (ft (ft b t bgs	bgs): ogs): s):	NA ~ 40.0' 93.0' 92.0'	
Depth (feet bgs.) Sample Interval		on	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Bor Con E	ing/Well struction)etails		
70 -	83.0-88.0': Silty SA gray, saturated, no	ND (80% sand, 20% odor, no sheen, soil	silt), fine to observed fro	medium sand, om auger cuttings.	SM				0.6				Sand Pack
Monum Casing Screen	ent Type: Stickup 4.0 Diameter (inches): Slot Size (inches):	Wel Filter Pac Surface Se Annular S	I Construction k: Glac eal: Conc eal: Ben	Inforr cier 80/ crete tonite	natio 700	'n	Grou Top (Surv	nd Su of Cas reyed	urface Elevation (fi sing Elevation (ft): Location: X:NA):	NA NA		

32.0-92.0'

Boring Abandonment:

NA

		FARALLON CONSULTING	Lo	g c	of I	Bor	ing	j: IA-4		Pa	age 6 of 6
Client: Vulcan Project: Block 37 Location: Seattle, WA Farallon PN: 397-044 Logged By: Amber Bailey			Date/Time Started: Date/Time Completed: Equipment: Drilling Company: Drilling Foreman: Drilling Method:	2/7/1 2/7/1 BG-2 Malc Shav Hollo	7@ 7@ 24 om [vn B ow St	0930 1500 Drilling lunt em Au	s C T J ger	Sampler Type: N/ Drive Hammer (Ibs. Depth of Water ATI Fotal Boring Depth Fotal Well Depth (ft): D (ft (ft k	bgs): bgs): s):	NA ~ 40.0' 93.0' 92.0'
Depth (feet bgs.)	Sample Interval	Lithologic Descript	ion SS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Bor Con: D	ing/Well struction etails
85		88.0-90.0': Well-graded SAND with gravel (85% sar fine to coarse sand, fine to coarse gravel, gray, satu sheen, soil observed from auger cuttings. 90.0-93.0': Well-graded SAND with silt (90% sand, coarse sand, trace gravel, gray, saturated, no odor, observed from auger cuttings.	nd, 15% gravel), urated, no odor, no 10% silt), fine to no sheen, soil SW-S				0.5 0.4 0.5 0.8				Sand Pack Bentonite

		Well Construct	ion Information	Cround Surface Floyetian (ft)	ΝΛ
Monument Type: Stickup 4.0	rags	Filter Pack:	Glacier 80/700	Ground Surface Elevation (it):	NA
Casing Diameter (inches):	12"	Surface Seal:	Concrete	Top of Casing Elevation (ft):	NA
Screen Slot Size (inches):	0.030"	Annular Seal:	Bentonite	Surveyed Location: X:NA	
Screened Interval (ft bgs):	32.0-92.0'	Boring Abandonment:	NA	Y: NA	

APPENDIX C WATERTECTONICS ANALYTICAL DATA

INTERIM ACTION COMPLETION REPORT

Groundwater Interception System 700 Dexter HVOC Plume Interim Action Block 37 Property 630 Westlake Avenue North Seattle, Washington

Farallon PN: 397-044

				Analytical Results (micrograms per liter) ¹						
Sample Location	Sampled By	Sample Date	Sample Identification	РСЕ	ТСЕ	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	
Clean Well INF	WaterTec	5/18/2017	CLEAN WELL INFLU.	< 1.0	< 0.5	< 1.0	< 1.0		< 0.2	
Clean Well INF	WaterTec	6/1/2017	CW INFL	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2	
Clean Well INF	WaterTec	6/2/2017	CW INFLU	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2	
INF	WaterTec	4/20/2017	INF-042017	< 1.0	< 0.5	42.2			27.0	
INF	WaterTec	4/26/2017	INF-042617	< 1.0	< 0.5	55.7			61.4	
Influent WT	WaterTec	5/3/2017	INFLUENT	< 1.0	< 0.5	51.2	< 1.0	< 1.0	53.9	
INF	WaterTec	5/8/2017	INF-050817	< 1.0	< 0.5	53.4			61.8	
Dewater Well 18	WaterTec	6/16/2017	DEWATERING WELLS 18	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
Dewater Well 19	WaterTec	6/16/2017	DEWATERING WELLS 19	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
Dewater Well 20	WaterTec	6/16/2017	DEWATERING WELLS 20	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
Dewater Well 21	WaterTec	6/16/2017	DEWATERING WELLS 21	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
Dewater Well 22	WaterTec	6/16/2017	DEWATERING WELLS 22	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
Dewater Well 23	WaterTec	6/16/2017	DEWATERING WELLS 23	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
Dewater Well 24	WaterTec	6/16/2017	DEWATERING WELLS 24	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
EFF UNK	WaterTec	4/20/2017	FFF-042017	< 1.0						
EFF UNK	WaterTec	5/3/2017	EFF-050317	< 1.0	< 0.5	24			9 14	
EFF UNK	WaterTec	5/8/2017	EFF 050817	< 2.0	< 0.5	27			12.97	
Effluent WT	WaterTee	5/12/2017		< 1.0	< 0.0	<u> </u>			(0.2	
	WaterTee	5/8/2017		< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2 58 3	
	WaterTee	5/12/2017	IA INFL	< 1.0	< 0.5	48.8	< 1.0	< 1.0	50.5	
	WaterTec	5/12/2017	IA INFLUENT 052117	< 1.0	< 0.5	42.7	< 1.0	< 1.0	37.2	
	water lec	5/31/2017	IA INFLUENT_053117	< 1.0	< 0.5	45.9	< 1.0	< 1.0	43.3	
	Water Lec	6/6/2017	IA INF_060617	< 1.0	< 0.5	20.1	< 1.0	< 1.0	< 0.2	
	Water Lec	6/13/2017	IA INFLUEN1_061317	< 1	< 0.5	50.9	< 1	< 1	48.3	
	WaterTec	6/20/2017	IA IN_062017	< 1	< 0.5	43.4	< 1	< 1	37.9	
IA INF	WaterTec	6/2//2017	IA INFL_062717	<1	< 0.5	43.3	< 1		32.7	
	WaterTec	7/3/2017	IA INF_070317	< 1	< 0.5	45	< 1	< 1	40.3	
	WaterTec	7/11/2017	IA IN_071117	< 1	< 0.5	44	< 1	< 1	39.1	
	WaterTec	7/18/2017	IA INFL_071817	< 1	< 0.5	45.3	< 1	< 1	35.9	
	WaterTec	7/25/2017	IA INF_072517	< 1	< 0.5	46.5	< 1	< 1	40.3	
	WaterTec	8/1/2017	IA INF_080117	< 1	< 0.5	46.9	< 1	< 1	37.6	
IA INF	WaterTec	8/8/2017	IA - INFLUENT_080817	< 1	< 0.5	47.8	< 1	< 1	39.4	
IA INF	WaterTec	8/15/2017	IA INFLUENT_081517	< 1	< 0.5	42.4	< 1	< 1	27.8	
IA INF	WaterTec	8/23/2017	IA-INFLUENT_082317	< 1	< 0.5	46.5	< 1	< 1	34.1	
IA Pre GAC 1	WaterTec	5/8/2017	IA PRE GAC 1	< 1.0	< 0.5	22.8	< 1.0	< 1.0	8.26	
IA Post GAC 1	WaterTec	5/8/2017	IA POST GAC 1	< 1.0	< 0.5	9.4	< 1.0	< 1.0	3.75	
IA Post GAC 1	WaterTec	5/17/2017	IA GAC #1	< 1.0	< 0.5	< 1.0	< 1.0		< 0.2	
IA Post GAC 2	WaterTec	5/8/2017	IA POST GAC 2	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	2.25	
IA Post GAC 2	WaterTec	5/17/2017	IA GAC #2	< 1.0	< 0.5	< 1.0	< 1.0		1.97	
IA Post GAC 3	WaterTec	5/8/2017	IA POST GAC 3	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	0.972	
IA Post GAC 3	WaterTec	5/17/2017	IA GAC #3	< 1.0	< 0.5	< 1.0	< 1.0		1.03	
IA Post East Tank	WaterTec	5/8/2017	IA POST EAST TANK	< 1.0	< 0.5	26.2	< 1.0	< 1.0	11.7	
IA Post West Tank	WaterTec	5/8/2017	IA POST WEST TANK	< 1.0	< 0.5	19.5	< 1.0	< 1.0	7.12	
IA EFF	WaterTec	5/3/2017	EFFLUENT IA	< 1.0	< 0.5	24	< 1.0	< 1.0	9.14	
IA EFF	WaterTec	5/31/2017	IA EFFLUENT_053117	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2	
IA EFF	WaterTec	6/6/2017	IA EFF_060617	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2	
IA EFF	WaterTec	6/13/2017	IA EFFLUENT_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
IA EFF	WaterTec	6/20/2017	IA OUT_062017	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
IA EFF	WaterTec	6/27/2017	IA EFFL_062717	< 1	< 0.5	< 1	< 1		0.683	
IA EFF	WaterTec	7/3/2017	IA EFF_070317	< 1	< 0.5	< 1	< 1	< 1	0.665	
IA EFF	WaterTec	7/11/2017	IA EFFL_071117	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
IA EFF	WaterTec	7/18/2017	IA EFF_071817	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
IA EFF	WaterTec	7/25/2017	IA EFF_072517	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
IA EFF	WaterTec	8/1/2017	IA EFF_080117	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
IA EFF	WaterTec	8/8/2017	IA - EFFLUENT_080817	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
IA EFF	WaterTec	8/23/2017	IA-EFFLUENT_082317	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
MTCA Cleanup Leve	ls for Groundwa	ater ²		5	5	16 ³	160 ³	400 ³	0.2	

				Analytical Results (micrograms per liter) ¹						
Sample Location	Sampled By	Sample Date	Sample Identification	РСЕ	ТСЕ	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	
Pre EC	WaterTec	5/8/2017	PRE EC	< 1.0	< 0.5	17.6	< 1.0	< 1.0	4.72	
Carbon	WaterTec	5/11/2017	CARBON / 1	< 1.0	< 1.0	4.44	< 1.0	< 1.0	12.1	
EC Post GAC 1	WaterTec	5/8/2017	EC POST GAC 1	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2	
EC Post GAC 2	WaterTec	5/8/2017	EC POST GAC 2	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	0.424	
GAC1 Inf	WaterTec	6/6/2017	GAC1 INF_060617	< 1.0	< 0.5	20.6	< 1.0	< 1.0	< 0.2	
GAC1 Eff	WaterTec	6/6/2017	GAC1 EFF_060617	< 1.0	< 0.5	< 1	< 1.0	< 1.0	< 0.2	
GAC2 Inf	WaterTec	6/6/2017	GAC2 INF_060617	< 1.0	< 0.5	20.4	< 1.0	< 1.0	< 0.2	
GAC2 Eff	WaterTec	6/6/2017	GAC2 EFF_060617	< 1.0	< 0.5	10.6	< 1.0	< 1.0	< 0.2	
GAC3 Inf	WaterTec	6/6/2017	GAC3 INF_060617	< 1.0	< 0.5	20.3	< 1.0	< 1.0	< 0.2	
GAC3 Eff	WaterTec	6/6/2017	GAC3 EFF_060617	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2	
GAC4 Inf	WaterTec	6/6/2017	GAC4 INF_060617	< 1.0	< 0.5	3.72	< 1	< 1.0	< 0.2	
GAC4 Eff	WaterTec	6/6/2017	GAC4 EFF_060617	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2	
GAC5 Inf	WaterTec	6/6/2017	GAC5 INF_060617	< 1.0	< 0.5	3.67	< 1	< 1.0	< 0.2	
GAC5 Eff	WaterTec	6/6/2017	GAC5 EFF_060617	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2	
GAC8 Inf	WaterTec	6/6/2017	GAC8 INF_060617	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2	
GAC8 Eff	WaterTec	6/6/2017	GAC8 EFF_060617	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2	
GAC9 Inf	WaterTec	6/6/2017	GAC9 INF_060617	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2	
GAC9 Eff	WaterTec	6/6/2017	GAC9 EFF_060617	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2	
GAC1 Inf	WaterTec	6/13/2017	INF GAC 1_061317	< 1	< 0.5	21.1	< 1	< 1	5.29	
GAC1 Eff	WaterTec	6/13/2017	EFF GAC 1_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC2 Inf	WaterTec	6/13/2017	INFLUENT GAC 2_061317	< 1	< 0.5	20.4	< 1	< 1	5.06	
GAC2 Eff	WaterTec	6/13/2017	EFFLUENT GAC 2_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC3 Inf	WaterTec	6/13/2017	INFLUENT GAC 3_061317	< 1	< 0.5	21.9	< 1	< 1	5.58	
GAC3 Eff	WaterTec	6/13/2017	EFFLUENT GAC 3_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC4 Inf	WaterTec	6/13/2017	IN GAC 4_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC4 Eff	WaterTec	6/13/2017	EFF GAC 4_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC5 Inf	WaterTec	6/13/2017	IN GAC 5_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC5 Eff	WaterTec	6/13/2017	EFF GAC 5_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC8 Inf	WaterTec	6/13/2017	IN GAC 8_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC8 Eff	WaterTec	6/13/2017	EFF GAC 8_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC9 Inf	WaterTec	6/13/2017	IN GAC 9_061317	< 1	< 0.5	1.53	< 1	< 1	< 0.2	
GAC9 Eff	WaterTec	6/13/2017	EFF GAC 9_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC1	WaterTec	6/20/2017	1	< 1	< 0.5	< 1	< 1	< 1	1.59	
GAC2	WaterTec	6/20/2017	2	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC3	WaterTec	6/20/2017	3	< 1	< 0.5	< 1	< 1	< 1	1.34	
GAC4	WaterTec	6/20/2017	4	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC5	WaterTec	6/20/2017	5	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC8	WaterTec	6/20/2017	8	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC9	WaterTec	6/20/2017	9	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC1 Inf	WaterTec	6/27/2017	GAC 1 INFL_062717	< 1	< 0.5	10.9	< 1		1.6	
GAC1 Eff	WaterTec	6/27/2017	GAC 1 EFFL_062717	< 1	< 0.5	< 1	< 1		1.7	
GAC2 Inf	WaterTec	6/27/2017	GAC 2 INFL_062717	< 1	< 0.5	13.8	< 1		3.44	
GAC2 Eff	WaterTec	6/27/2017	GAC 2 EFFL_062717	< 1	< 0.5	< 1	< 1		0.706	
GAC3 Inf	WaterTec	6/27/2017	GAC 3 INFL_062717	< 1	< 0.5	13.8	< 1		3.56	
GAC3 Eff	WaterTec	6/27/2017	GAC 3 EFFL_062717	< 1	< 0.5	< 1	< 1		1.54	
GAC4 Inf	WaterTec	6/27/2017	GAC 4 INFL_062717	< 1	< 0.5	< 1	< 1		0.725	
GAC4 Eff	WaterTec	6/27/2017	GAC 4 EFFL_062717	< 1	< 0.5	< 1	< 1		0.705	
GAC5 Inf	WaterTec	6/27/2017	GAC 5 INFL_062717	< 1	< 0.5	< 1	< 1		1.1	
GAC5 Eff	WaterTec	6/27/2017	GAC 5 EFFL_062717	< 1	< 0.5	< 1	< 1		0.655	
GAC8 Inf	WaterTec	6/27/2017	GAC 8 INFL 062717	< 1	< 0.5	< 1	< 1		< 0.2	
GAC8 Eff	WaterTec	6/27/2017	GAC 8 EFFL_062717	< 1	< 0.5	< 1	< 1		< 0.2	
GAC9 Inf	WaterTec	6/27/2017	GAC 9 INFL 062717	< 1	< 0.5	2.65	< 1		< 0.2	
GAC9 Eff	WaterTec	6/27/2017	GAC 9 EFFL 062717	< 1	< 0.5	<1	< 1		< 0.2	
	ls for Groundwa	ater ²		5	5	16 ³	160³	400 ³	0.2	

				Analytical Results (micrograms per liter) ¹						
Sample Location	Sampled By	Sample Date	Sample Identification	РСЕ	ТСЕ	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	
GAC1 Inf	WaterTec	7/3/2017	GAC 1 INF_070317	< 1	< 0.5	15.6	< 1	< 1	3.34	
GAC1 Eff	WaterTec	7/3/2017	GAC 1 EFF_070317	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC2 Inf	WaterTec	7/3/2017	GAC 2 INF_070317	< 1	< 0.5	15.8	< 1	< 1	3.34	
GAC2 Eff	WaterTec	7/3/2017	GAC 2 EFF_070317	< 1	< 0.5	< 1	< 1	< 1	1.12	
GAC3 Inf	WaterTec	7/3/2017	GAC 3 INF_070317	< 1	< 0.5	15.7	< 1	< 1	3.38	
GAC3 Eff	WaterTec	7/3/2017	GAC 3 EFF_070317	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC4 Inf	WaterTec	7/3/2017	GAC 4 INF_070317	< 1	< 0.5	< 1	< 1	< 1	0.291	
GAC4 Eff	WaterTec	7/3/2017	GAC 4 EFF_070317	< 1	< 0.5	< 1	< 1	< 1	0.646	
GAC5 Inf	WaterTec	7/3/2017	GAC 5 INF_070317	< 1	< 0.5	< 1	< 1	< 1	0.315	
GAC5 Eff	WaterTec	7/3/2017	GAC 5 EFF_070317	< 1	< 0.5	< 1	< 1	< 1	0.44	
GAC8 Inf	WaterTec	7/3/2017	GAC 8 INF_070317	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC8 Eff	WaterTec	7/3/2017	GAC 8 EFF_070317	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC9 Inf	WaterTec	7/3/2017	GAC 9 INF_070317	< 1	< 0.5	1.59	< 1	< 1	< 0.2	
GAC9 Eff	WaterTec	7/3/2017	GAC 9 EFF_070317	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC1 Inf	WaterTec	7/11/2017	1 IN_071117	< 1	< 0.5	21.3	< 1	< 1	< 0.2	
GAC1 Eff	WaterTec	7/11/2017	1 OUT_071117	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC2 Inf	WaterTec	7/11/2017	2 IN_071117	< 1	< 0.5	21.1	< 1	< 1	< 0.2	
GAC2 Eff	WaterTec	7/11/2017	2 OUT_071117	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC3 Inf	WaterTec	7/11/2017	3 IN_071117	< 1	< 0.5	21.3	< 1	< 1	< 0.2	
GAC3 Eff	WaterTec	7/11/2017	3 OUT_071117	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC6 Inf	WaterTec	7/11/2017	6 IN 071117	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC6 Eff	WaterTec	7/11/2017	6 OUT 071117	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC7 Inf	WaterTec	7/11/2017	7 IN 071117	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC7 Eff	WaterTec	7/12/2017	GAC7 EFF 071217	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC8 Inf	WaterTec	7/11/2017	8 IN 071117	< 1	< 0.5	1.87	< 1	< 1	< 0.2	
GAC8 Eff	WaterTec	7/11/2017	8 OUT 071117	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC9 Inf	WaterTec	7/11/2017	9 IN 071117	< 1	< 0.5	9.7	< 1	< 1	< 0.2	
GAC9 Eff	WaterTec	7/11/2017	9 OUT 071117	< 1	< 0.5	1.93	< 1	< 1	< 0.2	
GAC1 Inf	WaterTec	7/18/2017	GAC 1 INFL 071817	< 1	< 0.5	16.6	< 1	< 1	2.83	
GAC1 Eff	WaterTec	7/18/2017	GAC 1 EFFL_071817	< 1	< 0.5	< 1	< 1	< 1	0.763	
GAC2 Inf	WaterTec	7/18/2017	GAC 2 INFL 071817	< 1	< 0.5	15.4	< 1	< 1	2.57	
GAC2 Eff	WaterTec	7/18/2017	GAC 2 EFFL 071817	< 1	< 0.5	1.69	< 1	< 1	1.51	
GAC3 Inf	WaterTec	7/18/2017	GAC 3 INFL 071817	< 1	< 0.5	16.1	< 1	< 1	1.65	
GAC3 Eff	WaterTec	7/18/2017	 GAC 3 EFFL 071817	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC4 Inf	WaterTec	7/18/2017	GAC 4 INFL 071817	< 1	< 0.5	< 1	< 1	< 1	0.752	
GAC4 Eff	WaterTec	7/18/2017	GAC 4 EFFL 071817	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC5 Inf	WaterTec	7/18/2017	GAC 5 INFL 071817	< 1	< 0.5	< 1	< 1	< 1	0.686	
GAC5 Eff	WaterTec	7/18/2017	 GAC 5 EFFL 071817	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC8 Inf	WaterTec	7/18/2017	GAC 8 INFL 071817	<1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC8 Eff	WaterTec	7/18/2017	GAC 8 EFF 071817	<1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC9 Inf	WaterTec	7/18/2017	GAC 9 INFL 071817	<1	< 0.5	3.74	< 1	< 1	< 0.2	
GAC9 Eff	WaterTec	7/18/2017	GAC 9 EFFL 071817	<1	< 0.5	< 1	< 1	<1	< 0.2	
GAC1 Eff	WaterTec	7/25/2017	GAC 1 EFF 072517	<1	< 0.5	< 1	<1	< 1	0.642	
GAC2 Eff	WaterTec	7/25/2017	GAC 2 EFF 072517	<1	< 0.5	1.66	<1	<1	1.51	
GAC3 Eff	WaterTec	7/25/2017	GAC 3 EFF 072517	<1	< 0.5	1.6	<1	<1	1.52	
GAC4 Eff	WaterTec	7/25/2017	GAC 4 EFF 072517	<1	< 0.5	< 1	<1	< 1	< 0.2	
GAC5 Eff	WaterTec	7/25/2017	GAC 5 EFF 072517	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC8 Eff	WaterTec	7/25/2017	GAC 8 EFF 072517	< 1	< 0.5	< 1	<1	< 1	< 0.2	
GAC9 Eff	WaterTec	7/25/2017	GAC 9 EFF 072517	<1	< 0.5	< 1	<1	< 1	< 0.2	
MTCA Cleanup Leve	ls for Groundwa	ater ²		5	5	16 ³	160 ³	400 ³	0.2	

				Analytical Results (micrograms per liter) ¹						
Sample Location	Sampled By	Sample Date	Sample Identification	РСЕ	ТСЕ	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	
GAC1 Eff	WaterTec	8/1/2017	GAC 1 EFF_080117	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC2 Eff	WaterTec	8/1/2017	GAC 2 EFF_080117	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC3 Eff	WaterTec	8/1/2017	GAC 3 EFF_080117	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC4 Eff	WaterTec	8/1/2017	GAC 4 EFF_080117	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC5 Eff	WaterTec	8/1/2017	GAC 5 EFF_080117	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC8 Eff	WaterTec	8/1/2017	GAC 8 EFF_080117	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC9 Eff	WaterTec	8/1/2017	GAC 9 EFF_080117	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC1	WaterTec	8/8/2017	G1 080817	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC2	WaterTec	8/8/2017	G2_080817	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC3	WaterTec	8/8/2017	G3_080817	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC4	WaterTec	8/8/2017	G4_080817	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC5	WaterTec	8/8/2017	G5_080817	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC8	WaterTec	8/8/2017		< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC9	WaterTec	8/8/2017	 G9 080817	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC1	WaterTec	8/15/2017	G1 081517	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC2	WaterTec	8/15/2017	G2 081517	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC3	WaterTec	8/15/2017	G3 081517	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC4	WaterTec	8/15/2017	G4 081517	<1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC5	WaterTec	8/15/2017	G5 081517	<1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC9	WaterTec	8/15/2017	G9_081517	<1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC Eff	WaterTec	8/15/2017	G EFFLUENT 081517	<1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC1 Inf	WaterTec	8/23/2017	GAC 1 IN 082317	< 1	< 0.5	14.7	< 1	< 1	2.36	
GAC1 Eff	WaterTec	8/23/2017	GAC 1 OUT 082317	< 1	< 0.5	< 1	< 1	< 1	0.625	
GAC2 Eff	WaterTec	8/23/2017		< 1	< 0.5	< 1	< 1	< 1	1.22	
GAC3 Eff	WaterTec	8/23/2017	GAC 3 OUT 082317	< 1	< 0.5	< 1	< 1	< 1	0.715	
GAC4 Eff	WaterTec	8/23/2017	GAC 4 OUT 082317	<1	< 0.5	< 1	< 1	< 1	0.388	
GAC5 Eff	WaterTec	8/23/2017	GAC 5 OUT 082317	< 1	< 0.5	< 1	< 1	< 1	0.363	
GAC8 Inf	WaterTec	8/23/2017		< 1	< 0.5	1.2	< 1	< 1	< 0.2	
GAC8 Eff	WaterTec	8/23/2017	 GAC 8 OUT 082317	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
GAC9 Inf	WaterTec	8/23/2017		< 1	< 0.5	6.33	< 1	< 1	0.445	
Weir Tank Sludge	WaterTec	5/10/2017		< 0.717	< 0.907	< 1.22	< 0.893	< 0.713	< 1.63	
NPDES Discharge	WaterTec	4/19/2017	NPDES DISCHARGE POINT	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2	
NPDES Discharge	WaterTec	4/26/2017	NPDES DISCHARGE 042617	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2	
NPDES Discharge	WaterTec	5/3/2017	NPDES DISCHARGE_050317	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	0.383	
NPDES Discharge	WaterTec	5/31/2017	NPDES DISCH_053117	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2	
NPDES Discharge	WaterTec	6/6/2017	NPDES DISCHARGE_060617	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2	
NPDES Discharge	WaterTec	6/13/2017	NPDS_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
NPDES Discharge	WaterTec	6/20/2017	NPDES_062017	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
NPDES Discharge	WaterTec	6/27/2017	NPDES_062717	< 1	< 0.5	< 1	< 1		< 0.2	
NPDES Discharge	WaterTec	7/3/2017	NPDES_070317	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
NPDES Discharge	WaterTec	7/11/2017	NPDES DISCH_071117	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
NPDES Discharge	WaterTec	7/18/2017	NPDES DISCH_071817	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
NPDES Discharge	WaterTec	7/25/2017	NPDES_072517	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
NPDES Discharge	WaterTec	8/1/2017	NPDES DISCH_080117	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
NPDES Discharge	WaterTec	8/8/2017	NPDES DISCH_080817	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
NPDES Discharge	WaterTec	8/15/2017	NPDES DISCH_081517	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
NPDES Discharge	WaterTec	8/23/2017	NPDES_082317	< 1	< 0.5	< 1	< 1	< 1	< 0.2	
Sanitary Discharge	WaterTec	4/17/2017	SANITARY DISCHARGE	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2	
MTCA Cleanup Level	s for Groundwa	ater ²		5	5	16 ³	160 ³	400 ³	0.2	

NOTES:

Results in **bold** denote concentrations exceeding applicable cleanup levels.

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

- denotes sample not analyzed.

¹Analyzed by U.S. Environmental Protection Agency Method 8260C.

²Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Cleanup Levels for Groundwater,

Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013, unless otherwise noted.

³Washington State Model Toxics Control Act Cleanup Regulation Cleanup Levels and Risk Calculations, Standard Method B

Values for Groundwater, https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx

HVOC = halogenated volatile organic compound PCE = tetrachloroethene

TCE = trichloroethene

VOC = volatile organic compound

WaterTec = WaterTectonics

APPENDIX D LABORATORY ANALYTICAL REPORTS

INTERIM ACTION COMPLETION REPORT

Groundwater Interception System 700 Dexter HVOC Plume Interim Action Block 37 Property 630 Westlake Avenue North Seattle, Washington

Farallon PN: 397-044



March 31, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-010 Laboratory Reference No. 1703-240

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on March 24, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: March 31, 2017 Samples Submitted: March 24, 2017 Laboratory Reference: 1703-240 Project: 397-010

Case Narrative

Samples were collected on March 24, 2017 and received by the laboratory on March 24, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GEI-1-032417					
Laboratory ID:	03-240-01					
Vinyl Chloride	ND	0.20	EPA 8260C	3-30-17	3-30-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Trichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Tetrachloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	90	77-129				
Toluene-d8	106	80-127				
4-Bromofluorobenzene	106	80-125				



Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GEI-2-032417					
Laboratory ID:	03-240-02					
Vinyl Chloride	5.9	0.20	EPA 8260C	3-30-17	3-30-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
(cis) 1,2-Dichloroethene	1.7	0.20	EPA 8260C	3-30-17	3-30-17	
Trichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Tetrachloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	92	77-129				
Toluene-d8	106	80-127				
4-Bromofluorobenzene	107	80-125				



Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-MW-131-032417					
Laboratory ID:	03-240-03					
Vinyl Chloride	ND	0.20	EPA 8260C	3-30-17	3-30-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
(cis) 1,2-Dichloroethene	39	0.20	EPA 8260C	3-30-17	3-30-17	
Trichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Tetrachloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	94	77-129				
Toluene-d8	110	80-127				
4-Bromofluorobenzene	112	80-125				



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-MW-3D-032417					
Laboratory ID:	03-240-04					
Vinyl Chloride	ND	0.20	EPA 8260C	3-30-17	3-30-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Trichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Tetrachloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	95	77-129				
Toluene-d8	109	80-127				
4-Bromofluorobenzene	107	80-125				



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.
Date of Report: March 31, 2017 Samples Submitted: March 24, 2017 Laboratory Reference: 1703-240 Project: 397-010

VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0330W1					
Vinyl Chloride	ND	0.20	EPA 8260C	3-30-17	3-30-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Trichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Tetrachloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	93	77-129				
Toluene-d8	108	80-127				
4-Bromofluorobenzene	109	80-125				



VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Reco	Recovery		RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB03	30W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	8.29	9.04	10.0	10.0	83	90	63-127	9	17	
Benzene	9.30	10.2	10.0	10.0	93	102	76-121	9	12	
Trichloroethene	8.64	9.71	10.0	10.0	86	97	64-120	12	15	
Toluene	10.1	11.4	10.0	10.0	101	114	82-120	12	13	
Chlorobenzene	9.28	10.2	10.0	10.0	93	102	80-120	9	14	
Surrogate:										
Dibromofluoromethane					94	91	77-129			
Toluene-d8					111	111	80-127			
4-Bromofluorobenzene					114	109	80-125			





Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

OnSite Environmental Inc

Chain of Custody

Environmental Inc	Gnain	DT	GL	IST	00	Jy										Pa	age _	1	_ of _	1		
Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052	Turnaround Request (in working days)		L	abo	rate	ory	Nun	nbe	er:				() 3		21	10					٦
Phone: (425) 883-3881 • www.onsite-env.com Company: Fauallon Project Number: 397-010 Project Name: Block 37/31 Project Manager: TAD Cline Sampled by: Amber Bailey	(Check One) Check One) Same Day 1 Day 2 Days 3 Days Standard (7 Days) (TPH analysis 5 Days) (other) Data Time	nber of Containers	TPH-HCID	PH-Gx/BTEX	PH-Gx	PH-Dx (Acid / SG Clean-up)	tiles 8260C	genated Volatiles 8260C	EPA 8011 (Waters Only)	Ivolatiles 82/0D/SIM I low-level PAHs) s 877DD/SIM /Iow-lovel	s 8082A	inochlorine Pesticides 8081B	nophosphorus Pesticides 8270D/SIM	rinated Acid Herbicides 8151A	RCRA Metals	MTCA Metals	^o Metals	(oil and grease) 1664A	1. Work			bisture
Lab ID Sample Identification	Sampled Sampled Matrix	Nun	NN	MN	MN	LMN	Vola	Halo	EDB	(with PAH	PCB	Orga	Orga	Chlo	Total	Total	TCLF	HEM		1		% Mc
1 GET-1-032417	3/24/17 1005 W	3					×	_											X)		
2 GEL-2-032-117	3/2-117 1120 W	3					*1	12	5										X	\geq		
3 F-MW-131-0324P	3/24/17 1230 W	3					X!	100		_									Q			
4 F- MW- 3D-032417	3/21/2 1350 ~	3					X												Q			
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14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 30, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-044 Laboratory Reference No. 1706-290

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on June 26, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: June 30, 2017 Samples Submitted: June 26, 2017 Laboratory Reference: 1706-290 Project: 397-044

Case Narrative

Samples were collected on June 23, 2017 and received by the laboratory on June 26, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Volatiles EPA 8260C Analysis

All VOA vials provided for sample GEI-2_062317 contained headspace. Some loss of volatiles may have occurred.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-131_062317					
Laboratory ID:	06-290-01					
Vinyl Chloride	0.26	0.20	EPA 8260C	6-29-17	6-29-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
(cis) 1,2-Dichloroethene	3.6	0.20	EPA 8260C	6-29-17	6-29-17	
Trichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	122	77-129				
Toluene-d8	103	80-127				
4-Bromofluorobenzene	99	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GEI-2_062317					
Laboratory ID:	06-290-02					
Vinyl Chloride	110	1.0	EPA 8260C	6-29-17	6-29-17	
(trans) 1,2-Dichloroethene	ND	1.0	EPA 8260C	6-29-17	6-29-17	
(cis) 1,2-Dichloroethene	15	1.0	EPA 8260C	6-29-17	6-29-17	
Trichloroethene	ND	1.0	EPA 8260C	6-29-17	6-29-17	
Tetrachloroethene	ND	1.0	EPA 8260C	6-29-17	6-29-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	118	77-129				
Toluene-d8	103	80-127				
4-Bromofluorobenzene	98	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-3D_062317					
Laboratory ID:	06-290-03					
Vinyl Chloride	ND	0.20	EPA 8260C	6-29-17	6-29-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Trichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	119	77-129				
Toluene-d8	103	80-127				
4-Bromofluorobenzene	98	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-129_062317					
Laboratory ID:	06-290-04					
Vinyl Chloride	5.3	4.0	EPA 8260C	6-29-17	6-29-17	
(trans) 1,2-Dichloroethene	ND	4.0	EPA 8260C	6-29-17	6-29-17	
(cis) 1,2-Dichloroethene	360	4.0	EPA 8260C	6-29-17	6-29-17	
Trichloroethene	130	4.0	EPA 8260C	6-29-17	6-29-17	
Tetrachloroethene	49	4.0	EPA 8260C	6-29-17	6-29-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	106	77-129				
Toluene-d8	94	80-127				
4-Bromofluorobenzene	90	78-125				



Date of Report: June 30, 2017 Samples Submitted: June 26, 2017 Laboratory Reference: 1706-290 Project: 397-044

VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0629W1					
Vinyl Chloride	ND	0.20	EPA 8260C	6-29-17	6-29-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Trichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	99	77-129				
Toluene-d8	101	80-127				
4-Bromofluorobenzene	96	78-125				



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VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Recovery		Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB06	29W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	11.3	10.9	10.0	10.0	113	109	63-127	4	17	
Benzene	10.7	10.4	10.0	10.0	107	104	76-121	3	12	
Trichloroethene	9.55	8.85	10.0	10.0	96	89	64-120	8	15	
Toluene	10.7	9.94	10.0	10.0	107	99	82-120	7	13	
Chlorobenzene	10.1	9.26	10.0	10.0	101	93	80-120	9	14	
Surrogate:										
Dibromofluoromethane					98	103	77-129			
Toluene-d8					102	102	80-127			
4-Bromofluorobenzene					99	98	78-125			





Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

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Phone: (425) 883-3881 • www.onsite-env.com Company: FARALLON Project Number: 397 • 044 Project Name: 700 Dexter Project Manager: TAV CLINE Sampled by: A. VINING	(Check One) Check One) Check One Check On	ays fr of Containers	4-HCID	H-Gx/BTEX	GX 	8 8260C	nated Volatiles 8260C StoRTUIS	A B011 (Waters Only) OVLY	latiles 8270D/SIM w-level PAHs)	100/Juny (Jow Tevel)	chlorine Pesticides 8081B	phosphorus Pesticides 8270D/SIM	ated Acid Herbicides 8151A	CRA Metals	TCA Metals	Aetals	il and grease) 1664A				ture
Lab ID Sample Identification	Date Time Sampled Sampled Mat	trix oquiny	NWTPI	NWTPI	NWTPH	Volatile	Haloge	EDB EI	Semivo (with lo	PCBs 8	Organo	Organo	Chlorin	Total R	Total M	TCLP N	HEM (c				% Mois
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April 20, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-044 Laboratory Reference No. 1704-169

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on April 18, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: April 20, 2017 Samples Submitted: April 18, 2017 Laboratory Reference: 1704-169 Project: 397-044

Case Narrative

Samples were collected on April 17, 2017 and received by the laboratory on April 18, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	INF-041717					
Laboratory ID:	04-169-01					
Vinyl Chloride	20	0.40	EPA 8260C	4-18-17	4-18-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	4-18-17	4-18-17	
(cis) 1,2-Dichloroethene	39	0.40	EPA 8260C	4-18-17	4-18-17	
Trichloroethene	ND	0.40	EPA 8260C	4-18-17	4-18-17	
Tetrachloroethene	ND	0.40	EPA 8260C	4-18-17	4-18-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	97	77-129				
Toluene-d8	97	80-127				
4-Bromofluorobenzene	94	80-125				



3

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	INF2-041717					
Laboratory ID:	04-169-02					
Vinyl Chloride	25	0.40	EPA 8260C	4-18-17	4-18-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	4-18-17	4-18-17	
(cis) 1,2-Dichloroethene	42	0.40	EPA 8260C	4-18-17	4-18-17	
Trichloroethene	ND	0.40	EPA 8260C	4-18-17	4-18-17	
Tetrachloroethene	ND	0.40	EPA 8260C	4-18-17	4-18-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	102	77-129				
Toluene-d8	100	80-127				
4-Bromofluorobenzene	95	80-125				



Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF1-041717					
Laboratory ID:	04-169-03					
Vinyl Chloride	9.3	0.20	EPA 8260C	4-18-17	4-18-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-18-17	4-18-17	
(cis) 1,2-Dichloroethene	23	0.20	EPA 8260C	4-18-17	4-18-17	
Trichloroethene	ND	0.20	EPA 8260C	4-18-17	4-18-17	
Tetrachloroethene	ND	0.20	EPA 8260C	4-18-17	4-18-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	98	77-129				
Toluene-d8	98	80-127				
4-Bromofluorobenzene	91	80-125				



5

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF2-041717					
Laboratory ID:	04-169-04					
Vinyl Chloride	3.9	0.20	EPA 8260C	4-18-17	4-18-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-18-17	4-18-17	
(cis) 1,2-Dichloroethene	17	0.20	EPA 8260C	4-18-17	4-18-17	
Trichloroethene	ND	0.20	EPA 8260C	4-18-17	4-18-17	
Tetrachloroethene	ND	0.20	EPA 8260C	4-18-17	4-18-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	97	77-129				
Toluene-d8	97	80-127				
4-Bromofluorobenzene	88	80-125				



6

Date of Report: April 20, 2017 Samples Submitted: April 18, 2017 Laboratory Reference: 1704-169 Project: 397-044

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0418W1					
Vinyl Chloride	ND	0.20	EPA 8260C	4-18-17	4-18-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-18-17	4-18-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-18-17	4-18-17	
Trichloroethene	ND	0.20	EPA 8260C	4-18-17	4-18-17	
Tetrachloroethene	ND	0.20	EPA 8260C	4-18-17	4-18-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	116	77-129				
Toluene-d8	112	80-127				
4-Bromofluorobenzene	92	80-125				

HALOGENATED VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Reco	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB04	18W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.64	10.1	10.0	10.0	96	101	63-127	5	17	
Benzene	9.39	10.4	10.0	10.0	94	104	76-121	10	12	
Trichloroethene	9.32	9.81	10.0	10.0	93	98	64-120	5	15	
Toluene	9.63	10.5	10.0	10.0	96	105	82-120	9	13	
Chlorobenzene	9.83	10.5	10.0	10.0	98	105	80-120	7	14	
Surrogate:										
Dibromofluoromethane					95	103	77-129			
Toluene-d8					96	98	80-127			
4-Bromofluorobenzene					90	98	80-125			





Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

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Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052	Tur (i	naround Req n working da	uest /s)		La	abo	orate	ory	Nu	mb	er:	() 4	-	11	69)								
Phone: (425) 883-3881 • www.onsite-env.com Company: FARALLON Project Number: 397-044 Project Name: BLOCK 37 Project Manager: TAD CLINE	Sam 2 Da	(Check One) e Day [ys [dard (7 Days) analysis 5 Da] 1 Day] 3 Days ys)	ntainers		EX				Partiles 8260C	270D/SIM PAHs)	M (low-level)		Pesticides 8081B	rus Pesticides 8270D/SIM	d Herbicides 8151A	tals	tals		ease) 1664A					
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Data Package: Standard 🗋 Level III 🗋 Level IV 🗋 Electronic Data Deliver

DS L



April 24, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-044 Laboratory Reference No. 1704-191

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on April 20, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: April 24, 2017 Samples Submitted: April 20, 2017 Laboratory Reference: 1704-191 Project: 397-044

Case Narrative

Samples were collected on April 19, 2017 and received by the laboratory on April 20, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	INF-041917					
Laboratory ID:	04-191-01					
Vinyl Chloride	27	0.40	EPA 8260C	4-21-17	4-21-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	4-21-17	4-21-17	
(cis) 1,2-Dichloroethene	41	0.40	EPA 8260C	4-21-17	4-21-17	
Trichloroethene	ND	0.40	EPA 8260C	4-21-17	4-21-17	
Tetrachloroethene	ND	0.40	EPA 8260C	4-21-17	4-21-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	100	77-129				
Toluene-d8	96	80-127				
4-Bromofluorobenzene	94	80-125				



Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF1-041917					
Laboratory ID:	04-191-02					
Vinyl Chloride	2.9	0.20	EPA 8260C	4-21-17	4-21-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-17	4-21-17	
(cis) 1,2-Dichloroethene	13	0.20	EPA 8260C	4-21-17	4-21-17	
Trichloroethene	ND	0.20	EPA 8260C	4-21-17	4-21-17	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-17	4-21-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	99	77-129				
Toluene-d8	100	80-127				
4-Bromofluorobenzene	92	80-125				



4

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF2-041917					
Laboratory ID:	04-191-03					
Vinyl Chloride	3.1	0.20	EPA 8260C	4-21-17	4-21-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-17	4-21-17	
(cis) 1,2-Dichloroethene	15	0.20	EPA 8260C	4-21-17	4-21-17	
Trichloroethene	ND	0.20	EPA 8260C	4-21-17	4-21-17	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-17	4-21-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	104	77-129				
Toluene-d8	99	80-127				
4-Bromofluorobenzene	93	80-125				



Date of Report: April 24, 2017 Samples Submitted: April 20, 2017 Laboratory Reference: 1704-191 Project: 397-044

VOLATILES by EPA 8260C METHOD BLANK QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0421W1					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-17	4-21-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-17	4-21-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-17	4-21-17	
Trichloroethene	ND	0.20	EPA 8260C	4-21-17	4-21-17	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-17	4-21-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	100	77-129				
Toluene-d8	97	80-127				
4-Bromofluorobenzene	93	80-125				



VOLATILES by EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Reco	Recovery		RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB04	21W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.37	9.63	10.0	10.0	94	96	63-127	3	17	
Benzene	9.62	9.86	10.0	10.0	96	99	76-121	2	12	
Trichloroethene	9.62	9.73	10.0	10.0	96	97	64-120	1	15	
Toluene	10.0	10.2	10.0	10.0	100	102	82-120	2	13	
Chlorobenzene	10.0	10.2	10.0	10.0	100	102	80-120	2	14	
Surrogate:										
Dibromofluoromethane					97	101	77-129			
Toluene-d8					98	98	80-127			
4-Bromofluorobenzene					92	96	80-125			





Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

OnSite Environmental Inc.

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Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052	Turi (ir	naround Req n working da	luest lys)		La	abo	rato	ory	Nu	mb	er:	() 4	-	1	91	1									
Phone: (425) 883-3881 • www.onsite-env.com Company: Project Number: 397-044 Project Name: BLOCK 37 Project Manager: TAD QLINE Sampled by: Ven State	Same	(Check One) Day [/s [dard (7 Days) analysis 5 Da (other)	1 Day 3 Days ays)	r of Containers	-HCID	-Gx/BTEX	-Gx	-Dx (🗌 Acid / SG Clean-up)	s 8260C	hated Volatiles 8260C	A 8011 (Waters Only)	atiles 8270D/SIM w-level PAHs)	270D/SIM (low-level)	082A	chlorine Pesticides 8081B	chosphorus Pesticides 8270D/SIM	ated Acid Herbicides 8151A	CRA Metals	rcA Metals	letals	and grease) 1664A					ure
Lab ID Sample Identification	Date Sampled	Time Sampled	Matrix	Numbe	NWTPH	NWTPI-	NWTPH	NWTPH	Volatile	Haloger	EDB EF	Semivo (with lov	PAHs 8	PCBs 8	Organo	Organo	Chlorina	Total R(Total M	TCLP N	HEM (o					% Moist
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May 1, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-043 Laboratory Reference No. 1704-266

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on April 27, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: May 1, 2017 Samples Submitted: April 27, 2017 Laboratory Reference: 1704-266 Project: 397-043

Case Narrative

Samples were collected on April 27, 2017 and received by the laboratory on April 27, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	INF-042717					
Laboratory ID:	04-266-01					
Vinyl Chloride	39	0.40	EPA 8260C	4-28-17	4-28-17	
1,1-Dichloroethene	ND	0.40	EPA 8260C	4-28-17	4-28-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	4-28-17	4-28-17	
(cis) 1,2-Dichloroethene	52	0.40	EPA 8260C	4-28-17	4-28-17	
Trichloroethene	ND	0.40	EPA 8260C	4-28-17	4-28-17	
Tetrachloroethene	ND	0.40	EPA 8260C	4-28-17	4-28-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	93	77-129				
Toluene-d8	98	80-127				
4-Bromofluorobenzene	89	80-125				

3
HALOGENATED VOLATILES EPA 8260C

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF1-042717					
Laboratory ID:	04-266-02					
Vinyl Chloride	8.7	0.20	EPA 8260C	4-28-17	4-28-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
(cis) 1,2-Dichloroethene	28	0.20	EPA 8260C	4-28-17	4-28-17	
Trichloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
Tetrachloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	95	77-129				
Toluene-d8	100	80-127				
4-Bromofluorobenzene	93	80-125				



HALOGENATED VOLATILES EPA 8260C

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF2-042717					
Laboratory ID:	04-266-03					
Vinyl Chloride	3.8	0.20	EPA 8260C	4-28-17	4-28-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
(cis) 1,2-Dichloroethene	17	0.20	EPA 8260C	4-28-17	4-28-17	
Trichloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
Tetrachloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	97	77-129				
Toluene-d8	103	80-127				
4-Bromofluorobenzene	96	80-125				

5

Date of Report: May 1, 2017 Samples Submitted: April 27, 2017 Laboratory Reference: 1704-266 Project: 397-043

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0428W1					
Vinyl Chloride	ND	0.20	EPA 8260C	4-28-17	4-28-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
Trichloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
Tetrachloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	87	77-129				
Toluene-d8	101	80-127				
4-Bromofluorobenzene	96	80-125				

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Date of Report: May 1, 2017 Samples Submitted: April 27, 2017 Laboratory Reference: 1704-266 Project: 397-043

HALOGENATED VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

Matrix: Water Units: ug/L

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Reco	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB042	28W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	8.02	8.94	10.0	10.0	80	89	63-127	11	17	
Benzene	8.91	9.82	10.0	10.0	89	98	76-121	10	12	
Trichloroethene	8.88	9.53	10.0	10.0	89	95	64-120	7	15	
Toluene	9.32	10.1	10.0	10.0	93	101	82-120	8	13	
Chlorobenzene	9.16	10.2	10.0	10.0	92	102	80-120	11	14	
Surrogate:										
Dibromofluoromethane					85	84	77-129			
Toluene-d8					101	98	80-127			
4-Bromofluorobenzene					93	95	80-125			



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

7



Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



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OnSite Environmental Inc

Chain of Custody

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Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052	Turi (ir	naround Req 1 working da	uest ys)		La	abo	rate	ory	Nur	mbe	er:		0	4.	-2	2 6	6								
Phone: (425) 883-3881 • www.onsite-env.com Company: Farallon Cansulting Project Number: 397-043 Project Name: 700 Detter HVOC Plume Project Manager: Tad Cline Sampled by: Daniel Aguila Lab ID Sample Identification 1 INF-042717 2 FFF4-042717 3 EFF2-042717	□ Same □ 2 Day Stanc (TPH □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	(Check One) P Day [rs [dard (7 Days) analysis 5 Da (other) Time Sampled 17.85 1.300	$\frac{1}{3} \text{ Days}$ $\frac{3}{3} \text{ Days}$ $\frac{1}{3} $	C C C Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-GX	NWTPH-DX (Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C * 51157	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A				% Moisture
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14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

May 15, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-044 Laboratory Reference No. 1705-089

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on May 5, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: May 15, 2017 Samples Submitted: May 5, 2017 Laboratory Reference: 1705-089 Project: 397-044

Case Narrative

Samples were collected on May 4, 2017 and received by the laboratory on May 5, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-W-050417					
Laboratory ID:	05-089-01					
Vinyl Chloride	5.5	0.20	EPA 8260C	5-8-17	5-8-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
(cis) 1,2-Dichloroethene	20	0.20	EPA 8260C	5-8-17	5-8-17	
Trichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	105	77-129				
Toluene-d8	111	80-127				
4-Bromofluorobenzene	100	80-125				



Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-E-050417					
Laboratory ID:	05-089-02					
Vinyl Chloride	8.1	0.20	EPA 8260C	5-8-17	5-8-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
(cis) 1,2-Dichloroethene	25	0.20	EPA 8260C	5-8-17	5-8-17	
Trichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	109	77-129				
Toluene-d8	112	80-127				
4-Bromofluorobenzene	99	80-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	INF-050417					
Laboratory ID:	05-089-03					
Vinyl Chloride	6.1	0.20	EPA 8260C	5-8-17	5-8-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
(cis) 1,2-Dichloroethene	22	0.20	EPA 8260C	5-8-17	5-8-17	
Trichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	108	77-129				
Toluene-d8	110	80-127				
4-Bromofluorobenzene	99	80-125				



Date of Report: May 15, 2017 Samples Submitted: May 5, 2017 Laboratory Reference: 1705-089 Project: 397-044

VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0508W2					
Vinyl Chloride	ND	0.20	EPA 8260C	5-8-17	5-8-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
Trichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	104	77-129				
Toluene-d8	109	80-127				
4-Bromofluorobenzene	97	80-125				



VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Reco	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB05	08W2								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	10.8	10.3	10.0	10.0	108	103	63-127	5	17	
Benzene	10.7	10.1	10.0	10.0	107	101	76-121	6	12	
Trichloroethene	10.0	9.40	10.0	10.0	100	94	64-120	6	15	
Toluene	10.6	10.4	10.0	10.0	106	104	82-120	2	13	
Chlorobenzene	9.75	9.49	10.0	10.0	98	95	80-120	3	14	
Surrogate:										
Dibromofluoromethane					104	106	77-129			
Toluene-d8					110	105	80-127			
4-Bromofluorobenzene					95	96	80-125			





Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



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Phone: (425) 883-3881 · www.onsite-env.com Company: Farallon Consulting Project Number: 397-044 Project Name: 700 Dexter HVOC Plume Project Manager: Tad Cline Sampled by: Daniel Agviller	Sam	(Check One e Day iys dard (7 Days) f analysis 5 Di (other)) 1 Day 3 Days ays)	er of Containers	H-HCID	H-Gx/BTEX	H-Gx	H-Dx (Acid / SG Clean-up)	es 8260C	anated Volatiles 8260C PCE t	PA 8011 (Waters Only)	olatiles 8270D/SIM ow-level PAHs)	8270D/SIM (low-level)	8082A	ochlorine Pesticides 8081B	ophosphorus Pesticides 8270D/SIM	nated Acid Herbicides 8151A	ICRA Metals	ITCA Metals	Metals	oil and grease) 1664A				sture
Lab ID Sample Identification	Date Sampled	Time Sampled	Matrix	Numł	NWTF	NWTF	NWTF	NWTF	Volati	Halog	EDB E	Semiv (with I	PAHs	PCBs	Organ	Organ	Chlori	Total F	Total I	TCLP	HEM (% Moi
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14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

May 22, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-044 Laboratory Reference No. 1705-199

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on May 15, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: May 22, 2017 Samples Submitted: May 15, 2017 Laboratory Reference: 1705-199 Project: 397-044

Case Narrative

Samples were collected on May 12, 2017 and received by the laboratory on May 15, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	Eff_E_051217					
Laboratory ID:	05-199-01					
Vinyl Chloride	5.7	0.20	EPA 8260C	5-19-17	5-19-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
(cis) 1,2-Dichloroethene	18	0.20	EPA 8260C	5-19-17	5-19-17	
Trichloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	98	77-129				
Toluene-d8	98	80-127				
4-Bromofluorobenzene	102	80-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	Eff_W_051217					
Laboratory ID:	05-199-02					
Vinyl Chloride	4.0	0.20	EPA 8260C	5-19-17	5-19-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
(cis) 1,2-Dichloroethene	14	0.20	EPA 8260C	5-19-17	5-19-17	
Trichloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	101	77-129				
Toluene-d8	101	80-127				
4-Bromofluorobenzene	100	80-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	Inf_051217					
Laboratory ID:	05-199-03					
Vinyl Chloride	32	0.20	EPA 8260C	5-19-17	5-19-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
(cis) 1,2-Dichloroethene	37	0.20	EPA 8260C	5-19-17	5-19-17	
Trichloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	104	77-129				
Toluene-d8	102	80-127				
4-Bromofluorobenzene	103	80-125				



Date of Report: May 22, 2017 Samples Submitted: May 15, 2017 Laboratory Reference: 1705-199 Project: 397-044

VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0519W1					
Vinyl Chloride	ND	0.20	EPA 8260C	5-19-17	5-19-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
Trichloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	108	77-129				
Toluene-d8	101	80-127				
4-Bromofluorobenzene	95	80-125				



VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Reco	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB05	19W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	8.81	8.98	10.0	10.0	88	90	63-127	2	17	
Benzene	9.75	9.87	10.0	10.0	98	99	76-121	1	12	
Trichloroethene	9.15	9.22	10.0	10.0	92	92	64-120	1	15	
Toluene	10.2	10.2	10.0	10.0	102	102	82-120	0	13	
Chlorobenzene	9.18	9.38	10.0	10.0	92	94	80-120	2	14	
Surrogate:										
Dibromofluoromethane					109	107	77-129			
Toluene-d8					103	103	80-127			
4-Bromofluorobenzene					93	96	80-125			





Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

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Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052	Tur (i	naround Rec n working da	quest iys)		La	abo	rate	ory	Nur	nbe	er:	0	5	-1	9	9									
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14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 2, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-016 Laboratory Reference No. 1705-305

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on May 24, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: June 2, 2017 Samples Submitted: May 24, 2017 Laboratory Reference: 1705-305 Project: 397-016

Case Narrative

Samples were collected on May 23, 2017 and received by the laboratory on May 24, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-W-052317					
Laboratory ID:	05-305-01					
Vinyl Chloride	4.1	0.20	EPA 8260C	5-31-17	5-31-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-17	5-31-17	
(cis) 1,2-Dichloroethene	13	0.20	EPA 8260C	5-31-17	5-31-17	
Trichloroethene	ND	0.20	EPA 8260C	5-31-17	5-31-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-31-17	5-31-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	101	77-129				
Toluene-d8	97	80-127				
4-Bromofluorobenzene	90	80-125				



3

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-E-052317					
Laboratory ID:	05-305-02					
Vinyl Chloride	6.5	0.20	EPA 8260C	5-31-17	5-31-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-17	5-31-17	
(cis) 1,2-Dichloroethene	17	0.20	EPA 8260C	5-31-17	5-31-17	
Trichloroethene	ND	0.20	EPA 8260C	5-31-17	5-31-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-31-17	5-31-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	102	77-129				
Toluene-d8	99	80-127				
4-Bromofluorobenzene	95	80-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	INF-052317					
Laboratory ID:	05-305-03					
Vinyl Chloride	35	0.40	EPA 8260C	5-31-17	5-31-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	5-31-17	5-31-17	
(cis) 1,2-Dichloroethene	36	0.40	EPA 8260C	5-31-17	5-31-17	
Trichloroethene	ND	0.40	EPA 8260C	5-31-17	5-31-17	
Tetrachloroethene	ND	0.40	EPA 8260C	5-31-17	5-31-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	99	77-129				
Toluene-d8	99	80-127				
4-Bromofluorobenzene	93	80-125				



Date of Report: June 2, 2017 Samples Submitted: May 24, 2017 Laboratory Reference: 1705-305 Project: 397-016

VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0531W1					
Vinyl Chloride	ND	0.20	EPA 8260C	5-31-17	5-31-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-17	5-31-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-17	5-31-17	
Trichloroethene	ND	0.20	EPA 8260C	5-31-17	5-31-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-31-17	5-31-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	105	77-129				
Toluene-d8	101	80-127				
4-Bromofluorobenzene	94	80-125				



VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Reco	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB05	31W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	10.1	10.1	10.0	10.0	101	101	63-127	0	17	
Benzene	9.76	10.7	10.0	10.0	98	107	76-121	9	12	
Trichloroethene	9.48	9.45	10.0	10.0	95	95	64-120	0	15	
Toluene	10.1	9.93	10.0	10.0	101	99	82-120	2	13	
Chlorobenzene	9.56	10.0	10.0	10.0	96	100	80-120	4	14	
Surrogate:										
Dibromofluoromethane					102	106	77-129			
Toluene-d8					101	97	80-127			
4-Bromofluorobenzene					86	94	80-125			





Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

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Chain of Custody

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Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052	Turnaround Request (in working days)					Laboratory Number: 05-305																				
Company: Farallon Consulting Project Number: 397-016 Project Name: 700 Dexter HVOC Plume Project Manager: Tad Cline Sampled by: Daniel Aguilar	Sam	(Check One) e Day [ys [dard (7 Days) analysis 5 Da (other) Time	_ 1 Day _ 3 Days ays)	mber of Containers	JTPH-HCID	/TPH-Gx/BTEX	ЛРН-Gх	/TPH-Dx (Acid / SG Clean-up)	atiles 8260C	logenated Volatiles 8260C 💥	B EPA 8011 (Waters Only)	mivolatiles 8270D/SIM th low-level PAHs)	Hs 8270D/SIM (low-level)	Bs 8082A	ganochlorine Pesticides 8081B	janophosphorus Pesticides 8270D/SIM	lorinated Acid Herbicides 8151A	al RCRA Metals	al MTCA Metals	LP Metals	M (oil and grease) 1664A				Anistrua	
Lab ID Sample Identification	Sampled	Sampled	Matrix	NI	N	NZ	NN	NZ	No	< Ha	8	Se (wi	PA	PO	ŏ	Ő	ch	Tot	Tot	TC	H		_	+	%	-
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2 EFF-E-052317		0205		3						X																
3 INF-052317		0208		3						X																
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Reviewed/Date Reviewed/Date				Chromatograms with final report Electronic Data Deliverables (EDDs)							s) 🗌	-														



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 9, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-044 Laboratory Reference No. 1706-037

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on June 3, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: June 9, 2017 Samples Submitted: June 3, 2017 Laboratory Reference: 1706-037 Project: 397-044

Case Narrative

Samples were collected on June 2, 2017 and received by the laboratory on June 3, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-W-060217					
Laboratory ID:	06-037-01					
Vinyl Chloride	4.1	0.20	EPA 8260C	6-6-17	6-6-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
(cis) 1,2-Dichloroethene	15	0.20	EPA 8260C	6-6-17	6-6-17	
Trichloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	102	77-129				
Toluene-d8	100	80-127				
4-Bromofluorobenzene	100	78-125				


				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-E-060217					
Laboratory ID:	06-037-02					
Vinyl Chloride	7.5	0.20	EPA 8260C	6-6-17	6-6-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
(cis) 1,2-Dichloroethene	22	0.20	EPA 8260C	6-6-17	6-6-17	
Trichloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	103	77-129				
Toluene-d8	101	80-127				
4-Bromofluorobenzene	100	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	INF-060217					
Laboratory ID:	06-037-03					
Vinyl Chloride	35	0.40	EPA 8260C	6-6-17	6-6-17	
1,1-Dichloroethene	ND	0.40	EPA 8260C	6-6-17	6-6-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	6-6-17	6-6-17	
(cis) 1,2-Dichloroethene	41	0.40	EPA 8260C	6-6-17	6-6-17	
Trichloroethene	ND	0.40	EPA 8260C	6-6-17	6-6-17	
Tetrachloroethene	ND	0.40	EPA 8260C	6-6-17	6-6-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	96	77-129				
Toluene-d8	94	80-127				
4-Bromofluorobenzene	94	78-125				



Date of Report: June 9, 2017 Samples Submitted: June 3, 2017 Laboratory Reference: 1706-037 Project: 397-044

VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0606W1					
Vinyl Chloride	ND	0.20	EPA 8260C	6-6-17	6-6-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
Trichloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	101	77-129				
Toluene-d8	100	80-127				
4-Bromofluorobenzene	100	78-125				



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

Matrix: Water Units: ug/L

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Reco	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB06	06W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	10.4	10.2	10.0	10.0	104	102	63-127	2	17	
Benzene	10.4	10.4	10.0	10.0	104	104	76-121	0	12	
Trichloroethene	9.02	9.22	10.0	10.0	90	92	64-120	2	15	
Toluene	10.6	10.8	10.0	10.0	106	108	82-120	2	13	
Chlorobenzene	10.0	10.2	10.0	10.0	100	102	80-120	2	14	
Surrogate:										
Dibromofluoromethane					99	98	77-129			
Toluene-d8					102	102	80-127			
4-Bromofluorobenzene					101	101	78-125			



7



Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

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Project Number: Project Number: 397-044 Project Name: IA TRAMMAT Project Manager: Project Manager: Sampled by: Sampled by:	Sam 2 Da Stan (TPH	(Check One) e Day ys dard (7 Days) l analysis 5 Da (other)	1 Day 3 Days ays)	of Containers	HCID	-Gx/BTEX	GX	-Dx (Acid / SG Clean-up)	8260C	ated Volatiles 8260C	A 8011 (Waters Only)	atiles 8270D/SIM r-level PAHs)	70D/SIM (low-level)	182A	hlorine Pesticides 8081B	hosphorus Pesticides 8270D/SIM	ted Acid Herbicides 8151A	RA Metals	CA Metals	etals	and grease) 1664A				Ire	
Lab ID Sample Identification	Date Sampled	Time Sampled	Matrix	Numbe	NWTPH	NWTPH	NWTPH	HATWN	Volatiles	Halogen	EDB EP,	Semivol (with lov	PAHs 82	PCBs 8(Organoc	Organop	Chlorina	Total RC	Total MT	TCLP M	HEM (oil				% Moist	
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June 21, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-044 Laboratory Reference No. 1706-190

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on June 16, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: June 21, 2017 Samples Submitted: June 16, 2017 Laboratory Reference: 1706-190 Project: 397-044

Case Narrative

Samples were collected on June 15, 2017 and received by the laboratory on June 16, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	INF_061517					
Laboratory ID:	06-190-01					
Vinyl Chloride	41	0.40	EPA 8260C	6-19-17	6-19-17	
1,1-Dichloroethene	ND	0.40	EPA 8260C	6-19-17	6-19-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	6-19-17	6-19-17	
(cis) 1,2-Dichloroethene	49	0.40	EPA 8260C	6-19-17	6-19-17	
Trichloroethene	ND	0.40	EPA 8260C	6-19-17	6-19-17	
Tetrachloroethene	ND	0.40	EPA 8260C	6-19-17	6-19-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	117	77-129				
Toluene-d8	95	80-127				
4-Bromofluorobenzene	101	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF_W_061517					
Laboratory ID:	06-190-02					
Vinyl Chloride	4.8	0.20	EPA 8260C	6-19-17	6-19-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
(cis) 1,2-Dichloroethene	17	0.20	EPA 8260C	6-19-17	6-19-17	
Trichloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	117	77-129				
Toluene-d8	96	80-127				
4-Bromofluorobenzene	99	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF_E_061517					
Laboratory ID:	06-190-03					
Vinyl Chloride	8.1	0.20	EPA 8260C	6-19-17	6-19-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
(cis) 1,2-Dichloroethene	25	0.20	EPA 8260C	6-19-17	6-19-17	
Trichloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	117	77-129				
Toluene-d8	97	80-127				
4-Bromofluorobenzene	99	78-125				



Date of Report: June 21, 2017 Samples Submitted: June 16, 2017 Laboratory Reference: 1706-190 Project: 397-044

VOLATILES by EPA 8260C METHOD BLANK QUALITY CONTROL

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0619W1					
Vinyl Chloride	ND	0.20	EPA 8260C	6-19-17	6-19-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
Trichloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	110	77-129				
Toluene-d8	97	80-127				
4-Bromofluorobenzene	98	78-125				



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VOLATILES by EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Reco	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB06	19W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	11.2	10.9	10.0	10.0	112	109	63-127	3	17	
Benzene	11.0	11.1	10.0	10.0	110	111	76-121	1	12	
Trichloroethene	8.98	8.95	10.0	10.0	90	90	64-120	0	15	
Toluene	10.4	10.5	10.0	10.0	104	105	82-120	1	13	
Chlorobenzene	9.14	9.01	10.0	10.0	91	90	80-120	1	14	
Surrogate:										
Dibromofluoromethane					100	120	77-129			
Toluene-d8					96	104	80-127			
4-Bromofluorobenzene					97	93	78-125			





Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

nSite Environmental Inc.

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Lab ID Sample Identification	Date Sampled	Time Sampled	Matrix	Number (NWTPH-H	NWTPH-0	NWTPH-0	NWTPH-E	Volatiles 8	Halogenat	EDB EPA	Semivolat (with low-	PAHs 827	PCBs 808	Organoch	Organoph	Chlorinate	Total RCR	Total MTC	TCLP Met	HEM (oil a				% Moistur
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14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 30, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-044 Laboratory Reference No. 1706-314

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on June 27, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: June 30, 2017 Samples Submitted: June 27, 2017 Laboratory Reference: 1706-314 Project: 397-044

Case Narrative

Samples were collected on June 27, 2017 and received by the laboratory on June 27, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	INF-062717					
Laboratory ID:	06-314-01					
Vinyl Chloride	39	0.40	EPA 8260C	6-29-17	6-29-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	6-29-17	6-29-17	
(cis) 1,2-Dichloroethene	38	0.40	EPA 8260C	6-29-17	6-29-17	
Trichloroethene	ND	0.40	EPA 8260C	6-29-17	6-29-17	
Tetrachloroethene	ND	0.40	EPA 8260C	6-29-17	6-29-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	119	77-129				
Toluene-d8	103	80-127				
4-Bromofluorobenzene	97	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-W-062717					
Laboratory ID:	06-314-02					
Vinyl Chloride	3.0	0.20	EPA 8260C	6-29-17	6-29-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
(cis) 1,2-Dichloroethene	10	0.20	EPA 8260C	6-29-17	6-29-17	
Trichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	113	77-129				
Toluene-d8	101	80-127				
4-Bromofluorobenzene	98	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-E-062717					
Laboratory ID:	06-314-03					
Vinyl Chloride	5.8	0.20	EPA 8260C	6-29-17	6-29-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
(cis) 1,2-Dichloroethene	17	0.20	EPA 8260C	6-29-17	6-29-17	
Trichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	117	77-129				
Toluene-d8	103	80-127				
4-Bromofluorobenzene	97	78-125				



Date of Report: June 30, 2017 Samples Submitted: June 27, 2017 Laboratory Reference: 1706-314 Project: 397-044

VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0629W1					
Vinyl Chloride	ND	0.20	EPA 8260C	6-29-17	6-29-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Trichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	99	77-129				
Toluene-d8	101	80-127				
4-Bromofluorobenzene	96	78-125				



VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD					
Analyte	Res	sult	Spike	Level	Reco	overy	Limits	RPD	Limit	Flags				
SPIKE BLANKS														
Laboratory ID:	SB06	29W1												
	SB	SBD	SB	SBD	SB	SBD								
1,1-Dichloroethene	11.3	10.9	10.0	10.0	113	109	63-127	4	17					
Benzene	10.7	10.4	10.0	10.0	107	104	76-121	3	12					
Trichloroethene	9.55	8.85	10.0	10.0	96	89	64-120	8	15					
Toluene	10.7	9.94	10.0	10.0	107	99	82-120	7	13					
Chlorobenzene	10.1	9.26	10.0	10.0	101	93	80-120	9	14					
Surrogate:														
Dibromofluoromethane					98	103	77-129							
Toluene-d8					102	102	80-127							
4-Bromofluorobenzene					99	98	78-125							





Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

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Phone: (425) 883-3881 · www.onsite-env.com Company: Farallon ConSulting Project Number: 397-044 Project Name: 700 Dexter HVOC Plume IA Project Manager: Tad Cline Sampled by: Daniel Agualar	Sam	(Check One) le Day [lys [ldard (7 Days) l analysis 5 Da (other)	_ 1 Day _ 3 Days iys)	r of Containers	I-HCID	I-Gx/BTEX	H-Gx	I-Dx (Acid / SG Clean-up)	s 8260C	nated Volatiles 8260C, NCE TCE	A 8011 (Waters Only)	latiles 8270D/SIM w-level PAHs)	270D/SIM (low-level)	082A	chlorine Pesticides 8081B	phosphorus Pesticides 8270D/SIM	ated Acid Herbicides 8151A	CRA Metals	TCA Metals	letals	il and grease) 1664A				Ture
Lab ID Sample Identification	Date Sampled	Time Sampled	Matrix	Numbe	NWTP	NWTP	NWTPI	NWTPI	Volatile	Haloge	EDB EF	Semivo (with lo	PAHs 8	PCBs 8	Organc	Organo	Chlorin	Total R	Total M	TCLP N	HEM (o				% Mois
1 INF-062717	Ga7/17	340	Ho	3						X											1				
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14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

July 12, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-044 Laboratory Reference No. 1707-074

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on July 10, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: July 12, 2017 Samples Submitted: July 10, 2017 Laboratory Reference: 1707-074 Project: 397-044

Case Narrative

Samples were collected on July 7, 2017 and received by the laboratory on July 10, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-W-070717					
Laboratory ID:	07-074-01					
Vinyl Chloride	3.6	0.20	EPA 8260C	7-11-17	7-11-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-11-17	7-11-17	
(cis) 1,2-Dichloroethene	16	0.20	EPA 8260C	7-11-17	7-11-17	
Trichloroethene	ND	0.20	EPA 8260C	7-11-17	7-11-17	
Tetrachloroethene	ND	0.20	EPA 8260C	7-11-17	7-11-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	96	77-129				
Toluene-d8	92	80-127				
4-Bromofluorobenzene	102	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-E-070717					
Laboratory ID:	07-074-02					
Vinyl Chloride	6.5	0.20	EPA 8260C	7-11-17	7-11-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-11-17	7-11-17	
(cis) 1,2-Dichloroethene	25	0.20	EPA 8260C	7-11-17	7-11-17	
Trichloroethene	ND	0.20	EPA 8260C	7-11-17	7-11-17	
Tetrachloroethene	ND	0.20	EPA 8260C	7-11-17	7-11-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	99	77-129				
Toluene-d8	98	80-127				
4-Bromofluorobenzene	106	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	INF-070717					
Laboratory ID:	07-074-03					
Vinyl Chloride	32	0.40	EPA 8260C	7-11-17	7-11-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	7-11-17	7-11-17	
(cis) 1,2-Dichloroethene	49	0.40	EPA 8260C	7-11-17	7-11-17	
Trichloroethene	ND	0.40	EPA 8260C	7-11-17	7-11-17	
Tetrachloroethene	ND	0.40	EPA 8260C	7-11-17	7-11-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	99	77-129				
Toluene-d8	98	80-127				
4-Bromofluorobenzene	104	78-125				



Date of Report: July 12, 2017 Samples Submitted: July 10, 2017 Laboratory Reference: 1707-074 Project: 397-044

VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0711W1					
Vinyl Chloride	ND	0.20	EPA 8260C	7-11-17	7-11-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-11-17	7-11-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-11-17	7-11-17	
Trichloroethene	ND	0.20	EPA 8260C	7-11-17	7-11-17	
Tetrachloroethene	ND	0.20	EPA 8260C	7-11-17	7-11-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	99	77-129				
Toluene-d8	98	80-127				
4-Bromofluorobenzene	106	78-125				



VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	Percent Recovery			RPD	
Analyte	Res	sult	Spike	Level	Reco			RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB07	11W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	10.0	10.4	10.0	10.0	100	104	63-127	4	17	
Benzene	10.7	10.8	10.0	10.0	107	108	76-121	1	12	
Trichloroethene	8.97	9.10	10.0	10.0	90	91	64-120	1	15	
Toluene	10.8	10.9	10.0	10.0	108	109	82-120	1	13	
Chlorobenzene	9.24	9.41	10.0	10.0	92	94	80-120	2	14	
Surrogate:										
Dibromofluoromethane					98	96	77-129			
Toluene-d8					96	93	80-127			
4-Bromofluorobenzene					105	102	78-125			





Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

A	OnSite
	Environmental Inc
	Analytical Laboratory Testing Services

Chain of Custody

Page _____ of ___

	Analytical Lab 14648 NE 9	ooratory Testing Services 5th Street • Redmond, WA 98052	Tur (ii	naround Req n working da	uest ys)		La	abo	rato	ory	Nu	mbe	er:	0	7 -	0	7	4										
Compa Project Project Project Ta Sample	Phone: (425 Arallon Number: 97-044 Name: O Dexter Manager: 2 Cline ad by: aniel	HUOC Plume	Same	(Check One) e Day [ys [dard (7 Days) analysis 5 Da (other)] 1 Day 3 Days ays)	ber of Containers	PH-HCID	PH-Gx/BTEX	PH-GX	PH-Dx (🗌 Acid / SG Clean-up)	les 8260C	Jenated Volatiles 8260C	EPA 8011 (Waters Only)	volatiles 8270D/SIM low-level PAHs)	8270D/SIM (low-level)	8082A	nochlorine Pesticides 8081B	nophosphorus Pesticides 8270D/SIM	inated Acid Herbicides 8151A	RCRA Metals	MTCA Metals	Metals	(oil and grease) 1664A					isture
Lab ID	Sa	mple Identification	Date Sampled	Time Sampled	Matrix	Num	TWN	INWT	NWT	IWU	Volat	Haloo	EDB	Semi (with	PAHs	PCBs	Orga	Organ	Chlor	Total	Total	TCLP	HEM		-			% Mo
1	EFF-W	1-070717	7-7-17	1430	HZO	3						Х																
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Revie	wed/Date			Reviewed/Da	te								Chromatograms with final report Electronic Data Deliverables (EDDs)							Ds)	ſ							



July 20, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-044 Laboratory Reference No. 1707-141

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on July 17, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: July 20, 2017 Samples Submitted: July 17, 2017 Laboratory Reference: 1707-141 Project: 397-044

Case Narrative

Samples were collected on July 14, 2017 and received by the laboratory on July 17, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-W-071417					
Laboratory ID:	07-141-01					
Vinyl Chloride	1.4	0.20	EPA 8260C	7-18-17	7-18-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-18-17	7-18-17	
(cis) 1,2-Dichloroethene	13	0.20	EPA 8260C	7-18-17	7-18-17	
Trichloroethene	ND	0.20	EPA 8260C	7-18-17	7-18-17	
Tetrachloroethene	ND	0.20	EPA 8260C	7-18-17	7-18-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	99	77-129				
Toluene-d8	96	80-127				
4-Bromofluorobenzene	108	78-125				


				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-E-071417					
Laboratory ID:	07-141-02					
Vinyl Chloride	2.2	0.20	EPA 8260C	7-18-17	7-18-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-18-17	7-18-17	
(cis) 1,2-Dichloroethene	13	0.20	EPA 8260C	7-18-17	7-18-17	
Trichloroethene	ND	0.20	EPA 8260C	7-18-17	7-18-17	
Tetrachloroethene	ND	0.20	EPA 8260C	7-18-17	7-18-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	97	77-129				
Toluene-d8	93	80-127				
4-Bromofluorobenzene	104	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	INF-071417					
Laboratory ID:	07-141-03					
Vinyl Chloride	25	0.40	EPA 8260C	7-18-17	7-18-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	7-18-17	7-18-17	
(cis) 1,2-Dichloroethene	50	0.40	EPA 8260C	7-18-17	7-18-17	
Trichloroethene	ND	0.40	EPA 8260C	7-18-17	7-18-17	
Tetrachloroethene	ND	0.40	EPA 8260C	7-18-17	7-18-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	95	77-129				
Toluene-d8	94	80-127				
4-Bromofluorobenzene	107	78-125				



Date of Report: July 20, 2017 Samples Submitted: July 17, 2017 Laboratory Reference: 1707-141 Project: 397-044

VOLATILES by EPA 8260C METHOD BLANK QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0718W1					
Vinyl Chloride	ND	0.20	EPA 8260C	7-18-17	7-18-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-18-17	7-18-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-18-17	7-18-17	
Trichloroethene	ND	0.20	EPA 8260C	7-18-17	7-18-17	
Tetrachloroethene	ND	0.20	EPA 8260C	7-18-17	7-18-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	95	77-129				
Toluene-d8	93	80-127				
4-Bromofluorobenzene	105	78-125				



VOLATILES by EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Reco	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB07	18W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.44	9.53	10.0	10.0	94	95	63-127	1	17	
Benzene	10.6	10.9	10.0	10.0	106	109	76-121	3	12	
Trichloroethene	8.83	8.99	10.0	10.0	88	90	64-120	2	15	
Toluene	10.8	11.1	10.0	10.0	108	111	82-120	3	13	
Chlorobenzene	9.19	9.34	10.0	10.0	92	93	80-120	2	14	
Surrogate:										
Dibromofluoromethane					96	96	77-129			
Toluene-d8					95	93	80-127			
4-Bromofluorobenzene					109	106	78-125			





Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

OnSite Environmental Inc

Chain of Custody

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1	EFF-W-071417	7/14/17	1220	HzO	3						X							1						_	_	
2	EFF-E-071417		1223		3						X				_	_				-						
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14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

July 21, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-044 Laboratory Reference No. 1707-195

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on July 20, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: July 21, 2017 Samples Submitted: July 20, 2017 Laboratory Reference: 1707-195 Project: 397-044

Case Narrative

Samples were collected on July 20, 2017 and received by the laboratory on July 20, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-W-072017					
Laboratory ID:	07-195-01					
Vinyl Chloride	4.4	0.20	EPA 8260C	7-20-17	7-20-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-20-17	7-20-17	
(cis) 1,2-Dichloroethene	20	0.20	EPA 8260C	7-20-17	7-20-17	
Trichloroethene	ND	0.20	EPA 8260C	7-20-17	7-20-17	
Tetrachloroethene	ND	0.20	EPA 8260C	7-20-17	7-20-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	96	77-129				
Toluene-d8	90	80-127				
4-Bromofluorobenzene	107	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-E-072017					
Laboratory ID:	07-195-02					
Vinyl Chloride	4.8	0.20	EPA 8260C	7-20-17	7-20-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-20-17	7-20-17	
(cis) 1,2-Dichloroethene	21	0.20	EPA 8260C	7-20-17	7-20-17	
Trichloroethene	ND	0.20	EPA 8260C	7-20-17	7-20-17	
Tetrachloroethene	ND	0.20	EPA 8260C	7-20-17	7-20-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	99	77-129				
Toluene-d8	97	80-127				
4-Bromofluorobenzene	108	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	INF-072017					
Laboratory ID:	07-195-03					
Vinyl Chloride	32	0.40	EPA 8260C	7-20-17	7-20-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	7-20-17	7-20-17	
(cis) 1,2-Dichloroethene	52	0.40	EPA 8260C	7-20-17	7-20-17	
Trichloroethene	ND	0.40	EPA 8260C	7-20-17	7-20-17	
Tetrachloroethene	ND	0.40	EPA 8260C	7-20-17	7-20-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	95	77-129				
Toluene-d8	93	80-127				
4-Bromofluorobenzene	106	78-125				



Date of Report: July 21, 2017 Samples Submitted: July 20, 2017 Laboratory Reference: 1707-195 Project: 397-044

VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

				Date	Dute	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0720W1					
Vinyl Chloride	ND	0.20	EPA 8260C	7-20-17	7-20-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-20-17	7-20-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-20-17	7-20-17	
Trichloroethene	ND	0.20	EPA 8260C	7-20-17	7-20-17	
Tetrachloroethene	ND	0.20	EPA 8260C	7-20-17	7-20-17	
Surrogate: Per	rcent Recovery	Control Limits				
Dibromofluoromethane	101	77-129				
Toluene-d8	96	80-127				
4-Bromofluorobenzene	108	78-125				



VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Reco	Recovery		RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB072	20W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	10.0	9.62	10.0	10.0	100	96	63-127	4	17	
Benzene	11.6	11.5	10.0	10.0	116	115	76-121	1	12	
Trichloroethene	9.02	9.12	10.0	10.0	90	91	64-120	1	15	
Toluene	11.2	11.2	10.0	10.0	112	112	82-120	0	13	
Chlorobenzene	9.17	9.28	10.0	10.0	92	93	80-120	1	14	
Surrogate:										
Dibromofluoromethane					101	101	77-129			
Toluene-d8					95	96	80-127			
4-Bromofluorobenzene					107	110	78-125			





Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

OnSite	Cha	ain o	f (Cu	sto	dy	1									Pa	age _	1	_ of _	L		
Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052	Turnaround Rec (in working da	juest ys)		La	bora	tory	Nu	mbe	er:					0	7 -	-1	9	5				
Project Name: Too Dexter HVOC Plume Project Manager: Too Dexter HVOC Plume Project Manager: Too Cline Sampled by: Downiel Advilor	(Check One)	1 Day 3 Days ays)	r of Containers	I-HCID	-Gx/BTEX	I-Dx (Acid / SG Clean-up)	s 8260C	nated Volatiles 8260C	A 8011 (Waters Only)	latiles 82 (0D/SIM w-level PAHs)	082A	chlorine Pesticides 8081B	phosphorus Pesticides 8270D/SIM	ated Acid Herbicides 8151A	CRA Metals	TCA Meta's	letals	il and grease) 1664A		,		lire
Lab ID Sample Identification	Date Time Sampled Sampled	Matrix	Numbe	NWTPI	NWTPH	NWTPH	Volatile	Haloge	EDB EF	(with lo	PCBs 8	Organc	Organo	Chlorin	Total R	Total M	TCLP N	HEM (c				% Mois
1 EFF-W-072017	7/2017 1044	420	3					X														
Z EFF-E-072017	1048		3					X														
3 INF-072017	1 1023	J	S					X														+
Signature	Company				Date		Time			Comm	ents/S	pecial	Instru	uction	15	_						
Relinquished Received Received Received	2 Fargl	lon Re F	k		T/ac I/ac	117	18	205	5	*	PC	E	a	ng		þ a	vgl	nte	0			
Relinquished																						_
Received		_							1	Data P	ackag	e: Sta	andar	d 🗌	Lev	el III		Level	IV 🗌			
Reviewed/Date	Reviewed/Da	ite				_			1	Chrom	atogra	ms wi	th fina	al rep	ort 🗌	Ele	ctroni	c Data	Delive	rables	(EDDs)



August 9, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-044 Laboratory Reference No. 1707-323

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on July 31, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: August 9, 2017 Samples Submitted: July 31, 2017 Laboratory Reference: 1707-323 Project: 397-044

Case Narrative

Samples were collected on July 31, 2017 and received by the laboratory on July 31, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-W-073117					
Laboratory ID:	07-323-01					
Vinyl Chloride	2.0	0.20	EPA 8260C	8-4-17	8-4-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-4-17	8-4-17	
(cis) 1,2-Dichloroethene	13	0.20	EPA 8260C	8-4-17	8-4-17	
Trichloroethene	ND	0.20	EPA 8260C	8-4-17	8-4-17	
Tetrachloroethene	ND	0.20	EPA 8260C	8-4-17	8-4-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	94	77-129				
Toluene-d8	90	80-127				
4-Bromofluorobenzene	90	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-E-073117					
Laboratory ID:	07-323-02					
Vinyl Chloride	3.8	0.20	EPA 8260C	8-4-17	8-4-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-4-17	8-4-17	
(cis) 1,2-Dichloroethene	19	0.20	EPA 8260C	8-4-17	8-4-17	
Trichloroethene	ND	0.20	EPA 8260C	8-4-17	8-4-17	
Tetrachloroethene	ND	0.20	EPA 8260C	8-4-17	8-4-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	96	77-129				
Toluene-d8	90	80-127				
4-Bromofluorobenzene	89	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	INF-073117					
Laboratory ID:	07-323-03					
Vinyl Chloride	23	0.40	EPA 8260C	8-4-17	8-4-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	8-4-17	8-4-17	
(cis) 1,2-Dichloroethene	46	0.40	EPA 8260C	8-4-17	8-4-17	
Trichloroethene	ND	0.40	EPA 8260C	8-4-17	8-4-17	
Tetrachloroethene	ND	0.40	EPA 8260C	8-4-17	8-4-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	105	77-129				
Toluene-d8	98	80-127				
4-Bromofluorobenzene	99	78-125				



Date of Report: August 9, 2017 Samples Submitted: July 31, 2017 Laboratory Reference: 1707-323 Project: 397-044

VOLATILES by EPA 8260C METHOD BLANK QUALITY CONTROL

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0804W1					
Vinyl Chloride	ND	0.20	EPA 8260C	8-4-17	8-4-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-4-17	8-4-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-4-17	8-4-17	
Trichloroethene	ND	0.20	EPA 8260C	8-4-17	8-4-17	
Tetrachloroethene	ND	0.20	EPA 8260C	8-4-17	8-4-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	101	77-129				
Toluene-d8	98	80-127				
4-Bromofluorobenzene	94	78-125				

OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

VOLATILES by EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Result		Spike	Spike Level		overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB08	04W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	8.33	8.81	10.0	10.0	83	88	63-127	6	17	
Benzene	8.83	9.82	10.0	10.0	88	98	76-121	11	12	
Trichloroethene	7.57	7.97	10.0	10.0	76	80	64-120	5	15	
Toluene	8.67	9.61	10.0	10.0	87	96	82-120	10	13	
Chlorobenzene	8.14	9.21	10.0	10.0	81	92	80-120	12	14	
Surrogate:										
Dibromofluoromethane					101	100	77-129			
Toluene-d8					96	96	80-127			
4-Bromofluorobenzene					96	97	78-125			





Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

OnSite	Cha	ain o	f (Cu	ist	00	ły										P	age _	ι	of	1	_
Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052	Turnaround Rec (in working da	juest ys)		La	abo	rate	ory	Nur	nber	(07	-	32	23								
Phone: (425) 883-3881 · www.onsite-env.com Company: Farallon Consulting Project Number: <u>397-044</u> Project Name: <u>760 Dexter HVOC Plume IA</u> Project Manager: <u>Tad Chine</u> Sampled by: <u>Sampled by:</u>	(Check One)	1 Day 3 Days ays)	r of Containers	-HCID	-Gx/BTEX	-Gx	-Dx (🗌 Acid / SG Clean-up)	\$ 8260C	lated Volatiles 8260C 🔆 A 8011 (Waters Only)	atiles 8270D/SIM	270D/SIM (low-level)	082A	chlorine Pesticides 8081B	phosphorus Pesticides 8270D/SIM	ated Acid Herbicides 8151A	CRA Metals	rcA Metals	etals	l and grease) 1664A			
ab ID Sample Identification	Date Time Sampled Sampled	Matrix	Numbe	NWTPH	NWTPH	NWTPH	NWTPH	Volatiles	Haloger EDB EP	Semivo (with low	PAHs 82	PCBs 8	Organo	Organo	Chlorina	Total RC	Total M	TCLP N	HEM (oi			
1 EFF-W-073117	7/31/17/210	H-O	3						X													
2 EFF-E -073117	1/ 1213	~	3						X													
3 INF - 073117	+ 1215		2	-																		
Signature	Company				Date			Time		Co	mmer	nts/Sp	ecial	Instr	uctio	ns						
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I IGNIGWEW, DALE	Reviewed/Da	ile .					-	_		Chi	romat	ogran	ns wi	th fina	al rep	oort [Ele	ectron	ic Data	a Delive	rables (E	EDDs)



August 17, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-044 Laboratory Reference No. 1708-119

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on August 9, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: August 17, 2017 Samples Submitted: August 9, 2017 Laboratory Reference: 1708-119 Project: 397-044

Case Narrative

Samples were collected on August 9, 2017 and received by the laboratory on August 9, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-W-080917					
Laboratory ID:	08-119-01					
Vinyl Chloride	4.1	0.20	EPA 8260C	8-10-17	8-10-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
(cis) 1,2-Dichloroethene	20	0.20	EPA 8260C	8-10-17	8-10-17	
Trichloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
Tetrachloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	105	77-129				
Toluene-d8	100	80-127				
4-Bromofluorobenzene	94	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-E-080917					
Laboratory ID:	08-119-02					
Vinyl Chloride	3.9	0.20	EPA 8260C	8-10-17	8-10-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
(cis) 1,2-Dichloroethene	19	0.20	EPA 8260C	8-10-17	8-10-17	
Trichloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
Tetrachloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	106	77-129				
Toluene-d8	117	80-127				
4-Bromofluorobenzene	98	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	INF-080917					
Laboratory ID:	08-119-03					
Vinyl Chloride	30	0.20	EPA 8260C	8-10-17	8-10-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
(cis) 1,2-Dichloroethene	50	0.20	EPA 8260C	8-10-17	8-10-17	
Trichloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
Tetrachloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	106	77-129				
Toluene-d8	98	80-127				
4-Bromofluorobenzene	90	78-125				



Date of Report: August 17, 2017 Samples Submitted: August 9, 2017 Laboratory Reference: 1708-119 Project: 397-044

VOLATILES by EPA 8260C METHOD BLANK QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0810W1					
Vinyl Chloride	ND	0.20	EPA 8260C	8-10-17	8-10-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
Trichloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
Tetrachloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	98	77-129				
Toluene-d8	88	80-127				
4-Bromofluorobenzene	96	78-125				



VOLATILES by EPA 8260C MS/MSD QUALITY CONTROL

					Source	Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	It Recovery		Limits	RPD	Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-1 <i>1</i>	10-07									
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	10.1	10.0	10.0	10.0	ND	101	100	65-119	1	15	
Benzene	10.8	10.9	10.0	10.0	ND	108	109	75-117	1	15	
Trichloroethene	9.30	9.27	10.0	10.0	ND	93	93	66-120	0	15	
Toluene	9.22	9.89	10.0	10.0	ND	92	99	79-120	7	15	
Chlorobenzene	10.7	10.0	10.0	10.0	ND	107	100	76-120	7	15	
Surrogate:											
Dibromofluoromethane						105	106	77-129			
Toluene-d8						90	95	80-127			
4-Bromofluorobenzene						93	90	78-125			





Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

OnSite	Chain	of	Cı	IS	od	ly											Pag	ge	L	of		
Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052	Turnaround Request (in working days)		L	abo	rato	ry	Nu	mbe	er:	08	3 -	1	19)								
Company: Farallon Consulting Project Number:	(Check One)					(dr		×						70D/SIM	A							
397-044 Project Name: 700 Dexter HVOC Plume IA Project Manager: Tad Cline Sampled by: Daniel Aguilar	2 Days 3 Days	her of Containers	PH-HCID	PH-Gx/BTEX	XD-Hc	PH-Dx (Acid / SG Clean-u	les 8260C	jenated Volatiles 8260C 🔌	EPA 8011 (Waters Only)	volatiles 8270D/SIM low-level PAHs)	8270D/SIM (low-level)	\$ 8082A	nochlorine Pesticides 8081B	10000000000000000000000000000000000000	inated Acid Herbicides 8151	RCRA Metals	MTCA Metals	Metals	(oil and grease) 1664A			
ab ID Sample Identification	Date Time Sampled Sampled Matrix	Minut	NWTF	NWTF	NWTF	NWTF	Volati	Halog	EDB	Semix (with I	PAHs	PCBs	Orgar	Organ	Chlori	Total	Total	TCLP	HEM			
1 EFF-W-080917	8-9-17 0030 H20) 3				_		X					-	+	_	_	-	-		-		
3 INF-080917	0034					-		X														
			-										-						-			
Signature Relinquished Received Relinquished	Company Farallon	1		Date B	91	7 7		2	3	Com	Pa	s/Spec	cial In	nstruc	ction	da	gl	nte	rs			
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August 22, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-044 Laboratory Reference No. 1708-243

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on August 18, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: August 22, 2017 Samples Submitted: August 18, 2017 Laboratory Reference: 1708-243 Project: 397-044

Case Narrative

Samples were collected on August 18, 2017 and received by the laboratory on August 18, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-E-081817					
Laboratory ID:	08-243-01					
Vinyl Chloride	2.9	0.20	EPA 8260C	8-21-17	8-21-17	
(trans) 1,2-Dichloroethene	0.69	0.20	EPA 8260C	8-21-17	8-21-17	
(cis) 1,2-Dichloroethene	22	0.20	EPA 8260C	8-21-17	8-21-17	
Trichloroethene	ND	0.20	EPA 8260C	8-21-17	8-21-17	
Tetrachloroethene	ND	0.20	EPA 8260C	8-21-17	8-21-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	112	77-129				
Toluene-d8	100	80-127				
4-Bromofluorobenzene	100	78-125				


				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-W-081817					
Laboratory ID:	08-243-02					
Vinyl Chloride	1.4	0.20	EPA 8260C	8-21-17	8-21-17	
(trans) 1,2-Dichloroethene	1.2	0.20	EPA 8260C	8-21-17	8-21-17	
(cis) 1,2-Dichloroethene	10	0.20	EPA 8260C	8-21-17	8-21-17	
Trichloroethene	ND	0.20	EPA 8260C	8-21-17	8-21-17	
Tetrachloroethene	ND	0.20	EPA 8260C	8-21-17	8-21-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	110	77-129				
Toluene-d8	101	80-127				
4-Bromofluorobenzene	101	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	INF-081817					
Laboratory ID:	08-243-03					
Vinyl Chloride	24	0.40	EPA 8260C	8-21-17	8-21-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	8-21-17	8-21-17	
(cis) 1,2-Dichloroethene	43	0.40	EPA 8260C	8-21-17	8-21-17	
Trichloroethene	ND	0.40	EPA 8260C	8-21-17	8-21-17	
Tetrachloroethene	ND	0.40	EPA 8260C	8-21-17	8-21-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	106	77-129				
Toluene-d8	100	80-127				
4-Bromofluorobenzene	100	78-125				



Date of Report: August 22, 2017 Samples Submitted: August 18, 2017 Laboratory Reference: 1708-243 Project: 397-044

VOLATILES by EPA 8260C METHOD BLANK QUALITY CONTROL

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0821W1					
Vinyl Chloride	ND	0.20	EPA 8260C	8-21-17	8-21-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-21-17	8-21-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-21-17	8-21-17	
Trichloroethene	ND	0.20	EPA 8260C	8-21-17	8-21-17	
Tetrachloroethene	ND	0.20	EPA 8260C	8-21-17	8-21-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	109	77-129				
Toluene-d8	100	80-127				
4-Bromofluorobenzene	98	78-125				



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

VOLATILES by EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Rec	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB082	21W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.84	9.28	10.0	10.0	98	93	63-127	6	17	
Benzene	10.8	10.5	10.0	10.0	108	105	76-121	3	12	
Trichloroethene	9.60	9.37	10.0	10.0	96	94	64-120	2	15	
Toluene	10.4	10.4	10.0	10.0	104	104	82-120	0	13	
Chlorobenzene	10.7	10.3	10.0	10.0	107	103	80-120	4	14	
Surrogate:										
Dibromofluoromethane					105	108	77-129			
Toluene-d8					99	101	80-127			
4-Bromofluorobenzene					95	98	78-125			





Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

nSite Environmental Inc

Chain of Custody

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September 8, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-044 Laboratory Reference No. 1708-398

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on August 31, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: September 8, 2017 Samples Submitted: August 31, 2017 Laboratory Reference: 1708-398 Project: 397-044

Case Narrative

Samples were collected on August 30, 2017 and received by the laboratory on August 31, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-W-083017					
Laboratory ID:	08-398-01					
Vinyl Chloride	1.3	0.20	EPA 8260C	9-7-17	9-7-17	
(trans) 1,2-Dichloroethene	0.94	0.20	EPA 8260C	9-7-17	9-7-17	
(cis) 1,2-Dichloroethene	10	0.20	EPA 8260C	9-7-17	9-7-17	
Trichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	92	77-129				
Toluene-d8	94	80-127				
4-Bromofluorobenzene	94	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-E-083017					
Laboratory ID:	08-398-02					
Vinyl Chloride	2.1	0.20	EPA 8260C	9-7-17	9-7-17	
(trans) 1,2-Dichloroethene	1.2	0.20	EPA 8260C	9-7-17	9-7-17	
(cis) 1,2-Dichloroethene	14	0.20	EPA 8260C	9-7-17	9-7-17	
Trichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	98	77-129				
Toluene-d8	101	80-127				
4-Bromofluorobenzene	96	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	INF-083017					
Laboratory ID:	08-398-03					
Vinyl Chloride	24	0.40	EPA 8260C	9-7-17	9-7-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	9-7-17	9-7-17	
(cis) 1,2-Dichloroethene	42	0.40	EPA 8260C	9-7-17	9-7-17	
Trichloroethene	ND	0.40	EPA 8260C	9-7-17	9-7-17	
Tetrachloroethene	ND	0.40	EPA 8260C	9-7-17	9-7-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	96	77-129				
Toluene-d8	98	80-127				
4-Bromofluorobenzene	94	78-125				



Date of Report: September 8, 2017 Samples Submitted: August 31, 2017 Laboratory Reference: 1708-398 Project: 397-044

VOLATILES by EPA 8260C METHOD BLANK QUALITY CONTROL

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0907W1					
Vinyl Chloride	ND	0.20	EPA 8260C	9-7-17	9-7-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Trichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	99	77-129				
Toluene-d8	102	80-127				
4-Bromofluorobenzene	97	78-125				

OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

VOLATILES by EPA 8260C SB/SBD QUALITY CONTROL

					Source	Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Rec	overy	Limits	RPD	Limit	Flags
MATRIX SPIKES											
Laboratory ID:	09-01	19-05									
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	8.98	9.66	10.0	10.0	ND	90	97	65-119	7	15	
Benzene	9.35	10.3	10.0	10.0	ND	94	103	75-117	10	15	
Trichloroethene	9.33	9.89	10.0	10.0	ND	93	99	66-120	6	15	
Toluene	9.48	10.2	10.0	10.0	ND	95	102	79-120	7	15	
Chlorobenzene	9.79	10.6	10.0	10.0	ND	98	106	76-120	8	15	
Surrogate:											
Dibromofluoromethane						99	104	77-129			
Toluene-d8						98	101	80-127			
4-Bromofluorobenzene						96	98	78-125			





Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

OnSite Environmental Inc.

Chain of Custody

Page _____ of _____

Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052	Turn (in	around Req working da	uest ys)		La	abo	rato	ory	Nu	mbe	er:	0	8	-3	39	8									
Phone: (425) 883-3881 • www.onsite-env.com Company: Farallon Project Number: 397-044 Project Name: 700 Dexter HVOC Plume TA Project Manager: Fad Cline Sampled by: Daniel Agvilar ab ID Sample Identification 1 EFF- W-083017 2 EFF-E-083017 3 INF-083017	Same	(Check One) Day [s [ard (7 Days) analysis 5 Da (other) Time Sampled 1247 1250 1253 1250	1 Day 3 Days ays)	Solution Soluti Solution Solution Solution Solution Solution Solution Solut	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A				% Moisture
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September 14, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-044 Laboratory Reference No. 1709-137

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on September 13, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: September 14, 2017 Samples Submitted: September 13, 2017 Laboratory Reference: 1709-137 Project: 397-044

Case Narrative

Samples were collected on September 12, 2017 and received by the laboratory on September 13, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-W-091217					
Laboratory ID:	09-137-01					
Vinyl Chloride	1.9	0.20	EPA 8260C	9-14-17	9-14-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-14-17	9-14-17	
(cis) 1,2-Dichloroethene	12	0.20	EPA 8260C	9-14-17	9-14-17	
Trichloroethene	ND	0.20	EPA 8260C	9-14-17	9-14-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-14-17	9-14-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	109	77-129				
Toluene-d8	102	80-127				
4-Bromofluorobenzene	99	78-125				



Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-E-091217					
Laboratory ID:	09-137-02					
Vinyl Chloride	2.9	0.20	EPA 8260C	9-14-17	9-14-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-14-17	9-14-17	
(cis) 1,2-Dichloroethene	17	0.20	EPA 8260C	9-14-17	9-14-17	
Trichloroethene	ND	0.20	EPA 8260C	9-14-17	9-14-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-14-17	9-14-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	113	77-129				
Toluene-d8	103	80-127				
4-Bromofluorobenzene	101	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	INF-091217					
Laboratory ID:	09-137-03					
Vinyl Chloride	24	0.40	EPA 8260C	9-14-17	9-14-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	9-14-17	9-14-17	
(cis) 1,2-Dichloroethene	48	0.40	EPA 8260C	9-14-17	9-14-17	
Trichloroethene	ND	0.40	EPA 8260C	9-14-17	9-14-17	
Tetrachloroethene	ND	0.40	EPA 8260C	9-14-17	9-14-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	112	77-129				
Toluene-d8	103	80-127				
4-Bromofluorobenzene	99	78-125				



Date of Report: September 14, 2017 Samples Submitted: September 13, 2017 Laboratory Reference: 1709-137 Project: 397-044

VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0914W1					
Vinyl Chloride	ND	0.20	EPA 8260C	9-14-17	9-14-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-14-17	9-14-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-14-17	9-14-17	
Trichloroethene	ND	0.20	EPA 8260C	9-14-17	9-14-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-14-17	9-14-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	111	77-129				
Toluene-d8	104	80-127				
4-Bromofluorobenzene	98	78-125				



VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

				Percent					Recovery		RPD				
Analyte	Res	sult	Spike	Level	Reco	overy	Limits	RPD	Limit	Flags					
SPIKE BLANKS															
Laboratory ID:	SB09	14W1													
	SB	SBD	SB	SBD	SB	SBD									
1,1-Dichloroethene	8.48	8.33	10.0	10.0	85	83	63-127	2	17						
Benzene	9.90	9.82	10.0	10.0	99	98	76-121	1	12						
Trichloroethene	9.23	9.07	10.0	10.0	92	91	64-120	2	15						
Toluene	9.93	9.86	10.0	10.0	99	99	82-120	1	13						
Chlorobenzene	9.87	9.63	10.0	10.0	99	96	80-120	2	14						
Surrogate:															
Dibromofluoromethane					103	108	77-129								
Toluene-d8					103	104	80-127								
4-Bromofluorobenzene					97	99	78-125								





Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

OnSite		Cha	ain c) f	Cu	IST	100	ły											P	age _	l	_ of	1		
Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052	Tur (i	rnaround Rei in working da	quest ays)		La	abo	rate	ory	Nu	mb	er:	C	9	-	1	37	7			_					_
Phone: (425) 883-3881 · www.onsite-env.com Company: Farallan Project Number: 397-044 Project Name: 700 Dexter HVOC Plume IA Project Manager: Tad Cline	Sam	(Check One le Day tys dard (7 Days) f analysis 5 D) 1 Day 3 Days ays)	ontainers		BTEX		Acid / SG Clean-up)	00	Volatiles 8260C 💥	1 (Waters Only)	8270D/SIM si PAHs)	SIM (low-level)		ne Pesticides 8081B	horus Pesticides 8270D/SIM	cid Herbicides 8151A	letals	fetals		grease) 1664A				
Daniel Aguilar	Date	(other) Time		mber of (VTPH-HCI	VTPH-Gx/I	VTPH-Gx	VTPH-Dx (latiles 826	logenated	B EPA 80-	mivolatiles th low-leve	Hs 8270D/	Bs 8082A	ganochlori	Janophosp	lorinated A	al RCRA N	al MTCA N	LP Metals	M (oil and				Anistura
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Reviewed/Date		Reviewed/Da	te									Chron	natog	grams	s wit	h fina	l rep	ort 🗌	Ele	ctronic	o Data	Delive	rables	(EDDs	3) 🗌



October 5, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-044 Laboratory Reference No. 1709-362

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on September 28, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: October 5, 2017 Samples Submitted: September 28, 2017 Laboratory Reference: 1709-362 Project: 397-044

Case Narrative

Samples were collected on September 27, 2017 and received by the laboratory on September 28, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-W-092717					
Laboratory ID:	09-362-01					
Vinyl Chloride	2.8	0.20	EPA 8260C	9-29-17	9-29-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-29-17	9-29-17	
(cis) 1,2-Dichloroethene	16	0.20	EPA 8260C	9-29-17	9-29-17	
Trichloroethene	ND	0.20	EPA 8260C	9-29-17	9-29-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-29-17	9-29-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	91	77-129				
Toluene-d8	95	80-127				
4-Bromofluorobenzene	98	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-E-092717					
Laboratory ID:	09-362-02					
Vinyl Chloride	2.9	0.20	EPA 8260C	9-29-17	9-29-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-29-17	9-29-17	
(cis) 1,2-Dichloroethene	16	0.20	EPA 8260C	9-29-17	9-29-17	
Trichloroethene	ND	0.20	EPA 8260C	9-29-17	9-29-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-29-17	9-29-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	91	77-129				
Toluene-d8	95	80-127				
4-Bromofluorobenzene	98	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	INF-092717					
Laboratory ID:	09-362-03					
Vinyl Chloride	23	0.40	EPA 8260C	9-29-17	9-29-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	9-29-17	9-29-17	
(cis) 1,2-Dichloroethene	44	0.40	EPA 8260C	9-29-17	9-29-17	
Trichloroethene	ND	0.40	EPA 8260C	9-29-17	9-29-17	
Tetrachloroethene	ND	0.40	EPA 8260C	9-29-17	9-29-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	89	77-129				
Toluene-d8	93	80-127				
4-Bromofluorobenzene	97	78-125				



Date of Report: October 5, 2017 Samples Submitted: September 28, 2017 Laboratory Reference: 1709-362 Project: 397-044

VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Matrix: Water Units: ug/L

rod Apolyzod Elogo
reu Analyzeu Flags
17 9-29-17
17 9-29-17
17 9-29-17
17 9-29-17
17 9-29-17



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VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	rcent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Rec	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB093	29W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	8.99	8.91	10.0	10.0	90	89	63-127	1	17	
Benzene	9.75	9.78	10.0	10.0	98	98	76-121	0	12	
Trichloroethene	8.95	8.86	10.0	10.0	90	89	64-120	1	15	
Toluene	9.69	9.66	10.0	10.0	97	97	82-120	0	13	
Chlorobenzene	9.84	9.76	10.0	10.0	98	98	80-120	1	14	
Surrogate:										
Dibromofluoromethane					87	90	77-129			
Toluene-d8					94	94	80-127			
4-Bromofluorobenzene					98	98	78-125			





Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



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	Environmental	Inc

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Page _____ of _____

Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052 Phone: (425) 893 .9891 • www.capito.com	Turnaround Request (in working days) Laboratory Num										umber: 09-362												
Project Number: 397-044 Project Number: 397-044 Project Name: 700 Dexter HVOC Plume IA Project Manager: Tord Cline Sampled by: Daniel Aguilar	(Same 2 Days Standa (TPH a	(Check One) Day [s [ard (7 Days) analysis 5 Da (other)] 1 Day] 3 Days iys)	ber of Containers	PH-HCID	PH-Gx/BTEX	PH-GX PH-Dx (Arid / SG Clean-In)		genated Volatiles 8260C	EPA 8011 (Waters Only)	volatiles 8270D/SIM Iow-level PAHs)	s 8082A	nochlorine Pesticides 8081B	nophosphorus Pesticides 8270D/SIM	inated Acid Herbicides 8151A	RCRA Metals	MTCA Metals	Metals	(oil and grease) 1664A				isture
Lab ID Sample Identification	Date Sampled	Time Sampled	Matrix	Num	NWT	TWN	TWN	Volat	Halo	EDB	Semi (with	PCB	Orga	Orga	Chlor	Total	Total	TCLF	HEM				% Mc
1 EFF-W-092717 2 EFF-E-092717 3 INF-092717	9/27/17	1343 1846 1349	420	33																			
Signature Relinquished Received Relinquished Received Received		arall	B			Date 9/2 7/2	8/17		ime SUS SOI	2	Comr	nents/	Specia CE rad	I Instr	s S	ns d	C	slee	Ira	dort	Ĩov	2	
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Reviewed/Date	F	Reviewed/Dat	te								Chron	natogr	ams w	ith fin	al rep	ort 🗌	Ele	ctroni	c Data	Delive	rables	(EDDs	s) 🗌



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

October 11, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-044 Laboratory Reference No. 1710-085

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on October 6, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: October 11, 2017 Samples Submitted: October 6, 2017 Laboratory Reference: 1710-085 Project: 397-044

Case Narrative

Samples were collected on October 5, 2017 and received by the laboratory on October 6, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-W-100517					
Laboratory ID:	10-085-01					
Vinyl Chloride	1.7	0.20	EPA 8260C	10-9-17	10-9-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-9-17	10-9-17	
(cis) 1,2-Dichloroethene	11	0.20	EPA 8260C	10-9-17	10-9-17	
Trichloroethene	ND	0.20	EPA 8260C	10-9-17	10-9-17	
Tetrachloroethene	ND	0.20	EPA 8260C	10-9-17	10-9-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	95	77-129				
Toluene-d8	96	80-127				
4-Bromofluorobenzene	100	78-125				


				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-E-100517					
Laboratory ID:	10-085-02					
Vinyl Chloride	2.8	0.20	EPA 8260C	10-9-17	10-9-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-9-17	10-9-17	
(cis) 1,2-Dichloroethene	16	0.20	EPA 8260C	10-9-17	10-9-17	
Trichloroethene	ND	0.20	EPA 8260C	10-9-17	10-9-17	
Tetrachloroethene	ND	0.20	EPA 8260C	10-9-17	10-9-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	94	77-129				
Toluene-d8	97	80-127				
4-Bromofluorobenzene	99	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	INF-100517					
Laboratory ID:	10-085-03					
Vinyl Chloride	25	0.40	EPA 8260C	10-9-17	10-9-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	10-9-17	10-9-17	
(cis) 1,2-Dichloroethene	48	0.40	EPA 8260C	10-9-17	10-9-17	
Trichloroethene	ND	0.40	EPA 8260C	10-9-17	10-9-17	
Tetrachloroethene	ND	0.40	EPA 8260C	10-9-17	10-9-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	93	77-129				
Toluene-d8	96	80-127				
4-Bromofluorobenzene	98	78-125				



Date of Report: October 11, 2017 Samples Submitted: October 6, 2017 Laboratory Reference: 1710-085 Project: 397-044

VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB1009W1					
Vinyl Chloride	ND	0.20	EPA 8260C	10-9-17	10-9-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-9-17	10-9-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-9-17	10-9-17	
Trichloroethene	ND	0.20	EPA 8260C	10-9-17	10-9-17	
Tetrachloroethene	ND	0.20	EPA 8260C	10-9-17	10-9-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	92	77-129				
Toluene-d8	94	80-127				
4-Bromofluorobenzene	98	78-125				



VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Reco	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB10	09W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	10.3	10.1	10.0	10.0	103	101	63-127	2	17	
Benzene	10.4	10.6	10.0	10.0	104	106	76-121	2	12	
Trichloroethene	9.48	9.18	10.0	10.0	95	92	64-120	3	15	
Toluene	10.2	10.2	10.0	10.0	102	102	82-120	0	13	
Chlorobenzene	10.3	9.83	10.0	10.0	103	98	80-120	5	14	
Surrogate:										
Dibromofluoromethane					91	94	77-129			
Toluene-d8					94	95	80-127			
4-Bromofluorobenzene					97	97	78-125			





Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



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OnSite Environmental Inc.

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Page _ l _ of _ l

	Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052	Tur (i	naround Req n working da	juest ys)		La	abo	rate	ory	Nun	nbe	er:	1	n	- 1	1 8	5										
Compare Projec Projec Projec	Phone: (425) 883-3881 + www.onsite-env.com any: Arallon Cons-Iting Phone: 97-044 Name: 700 Dexter HVOC Plume Manager: 222 Cline ad by: Daniel Aynilar	Sam	(Check One) e Day ys dard (7 Days) analysis 5 Da (other)	1 Day 3 Days	ber of Containers	PH-HCID	PH-Gx/BTEX	H-Gx	PH-Dx (Acid / SG Clean-up)	les 8260C	jenated Volatiles 8260C	EPA 8011 (Waters Only)	volatiles 8270D/SIM low-level PAHs)	8270D/SIM (low-level)	8082A	nochlorine Pesticides 8081B	10phosphorus Pesticides 8270D/SIM	inated Acid Herbicides 8151A	RCRA Metals	MTCA Metals	Metals	(oil and grease) 1664A					isture
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Numl	NWTF	NWTF	NWTF	NWTF	Volati	Halog	EDB	Semiv (with	PAHs	PCBs	Orgar	Orgar	Chlor	Total	Total	TCLP	HEM					% Mo
1	EFF-W-100517	10/5/17	923	HZO	3						X																
2	EFF-E-100517		926		3						X																
3	INF-100517		929	1	3						X																
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Revie	wed/Date		Reviewed/Da	te									Chron	mato	gram	s wit	h fina	l rep	ort 🗌	Ele	ctroni	c Data	a Deliv	erable	s (EDI	Ds) 🗌	



October 31, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-044 Laboratory Reference No. 1710-360

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on October 26, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: October 31, 2017 Samples Submitted: October 26, 2017 Laboratory Reference: 1710-360 Project: 397-044

Case Narrative

Samples were collected on October 24, 2017 and received by the laboratory on October 26, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	INF-102417					
Laboratory ID:	10-360-01					
Vinyl Chloride	47	0.40	EPA 8260C	10-27-17	10-27-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	10-27-17	10-27-17	
(cis) 1,2-Dichloroethene	72	0.40	EPA 8260C	10-27-17	10-27-17	
Trichloroethene	ND	0.40	EPA 8260C	10-27-17	10-27-17	
Tetrachloroethene	ND	0.40	EPA 8260C	10-27-17	10-27-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	111	75-127				
Toluene-d8	99	80-127				
4-Bromofluorobenzene	110	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-W-102417					
Laboratory ID:	10-360-02					
Vinyl Chloride	4.9	0.20	EPA 8260C	10-27-17	10-27-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-27-17	10-27-17	
(cis) 1,2-Dichloroethene	22	0.20	EPA 8260C	10-27-17	10-27-17	
Trichloroethene	ND	0.20	EPA 8260C	10-27-17	10-27-17	
Tetrachloroethene	ND	0.20	EPA 8260C	10-27-17	10-27-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	106	75-127				
Toluene-d8	97	80-127				
4-Bromofluorobenzene	105	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	EFF-E-102417					
Laboratory ID:	10-360-03					
Vinyl Chloride	4.6	0.20	EPA 8260C	10-27-17	10-27-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-27-17	10-27-17	
(cis) 1,2-Dichloroethene	21	0.20	EPA 8260C	10-27-17	10-27-17	
Trichloroethene	ND	0.20	EPA 8260C	10-27-17	10-27-17	
Tetrachloroethene	ND	0.20	EPA 8260C	10-27-17	10-27-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	106	75-127				
Toluene-d8	97	80-127				
4-Bromofluorobenzene	106	78-125				



Date of Report: October 31, 2017 Samples Submitted: October 26, 2017 Laboratory Reference: 1710-360 Project: 397-044

VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB1027W2					
Vinyl Chloride	ND	0.20	EPA 8260C	10-27-17	10-27-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-27-17	10-27-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-27-17	10-27-17	
Trichloroethene	ND	0.20	EPA 8260C	10-27-17	10-27-17	
Tetrachloroethene	ND	0.20	EPA 8260C	10-27-17	10-27-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	106	75-127				
Toluene-d8	97	80-127				
4-Bromofluorobenzene	104	78-125				



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Reco	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB10	27W3								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.10	9.26	10.0	10.0	91	93	63-126	2	21	
Benzene	11.0	11.1	10.0	10.0	110	111	78-122	1	19	
Trichloroethene	10.2	10.0	10.0	10.0	102	100	63-120	2	20	
Toluene	10.7	11.0	10.0	10.0	107	110	79-124	3	19	
Chlorobenzene	10.9	11.0	10.0	10.0	109	110	78-120	1	19	
Surrogate:										
Dibromofluoromethane					103	103	75-127			
Toluene-d8					95	96	80-127			
4-Bromofluorobenzene					105	108	78-125			





Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

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	Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052	Tur (i	naround Req n working da	juest ys)		L	abo	orat	ory	Nu	mb	er:		10) -	3	6	0								
Compa Projec Projec Projec Sampl	Phone: (425) 883-3881 • www.onsite-env.com iny: Farallon Consulfing Number: 397-044 Name: 700 Dexter HVOC Plune I. Manager: Tad Cline ed by: NT	A Same 2 Da Stan (TPH	(Check One) e Day ys dard (7 Days) analysis 5 Da (other)	1 Day 3 Days ays)	r of Containers	+HCID	4-Gx/BTEX	1-Gx	1-Dx (Acid / SG Clean-up)	s 8260C	nated Volatiles 8260C	PA 8011 (Waters Only)	latiles 8270D/SIM w-level PAHs)	270D/SIM (low-level)	AZANA	ICHIORINE PESTICIDES 8081B	phosphorus Pesticides 8270D/SIM	ated Acid Herbicides 8151A	CRA Metals	TCA Metals	Aetals	iil and grease) 1664A				ture
.ab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Numbe	NWTPI	NWTP	NWTPI	NWTPI	Volatile	Haloge	EDB EI	Semivo (with Ic	PAHs 8	- Saura	Urgano	Organo	Chlorir	Total R	Total N	TCLP1	HEM (c				% Mois
1	INF-102417	10/24/17	1458	W	3						X															
2	EFF-W-102417	10/24/17	1503	w	3						X								-							T
3	EFF- E-102417	10/24/17	1508	W	3			-	-	-	X				-									_	-	
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December 29, 2017

Tad Cline Farallon Consulting, LLC 1809 7th Ave., Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 397-044 Laboratory Reference No. 1712-208

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on December 19, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: December 29, 2017 Samples Submitted: December 19, 2017 Laboratory Reference: 1712-208 Project: 397-044

Case Narrative

Samples were collected on December 18, 2017 and received by the laboratory on December 19, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	INF-121817					
Laboratory ID:	12-208-01					
Vinyl Chloride	26	0.40	EPA 8260C	12-27-17	12-27-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	12-27-17	12-27-17	
(cis) 1,2-Dichloroethene	66	0.40	EPA 8260C	12-27-17	12-27-17	
Trichloroethene	ND	0.40	EPA 8260C	12-27-17	12-27-17	
Tetrachloroethene	ND	0.40	EPA 8260C	12-27-17	12-27-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	100	75-127				
Toluene-d8	99	80-127				
4-Bromofluorobenzene	100	78-125				



				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-131-121817					
Laboratory ID:	12-208-02					
Vinyl Chloride	ND	0.20	EPA 8260C	12-27-17	12-27-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	12-27-17	12-27-17	
(cis) 1,2-Dichloroethene	0.61	0.20	EPA 8260C	12-27-17	12-27-17	
Trichloroethene	ND	0.20	EPA 8260C	12-27-17	12-27-17	
Tetrachloroethene	ND	0.20	EPA 8260C	12-27-17	12-27-17	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	98	75-127				
Toluene-d8	98	80-127				
4-Bromofluorobenzene	97	78-125				



Date of Report: December 29, 2017 Samples Submitted: December 19, 2017 Laboratory Reference: 1712-208 Project: 397-044

VOLATILES by EPA 8260C METHOD BLANK QUALITY CONTROL

Analyzed	Flags
12-27-17	
12-27-17	
12-27-17	
12-27-17	
12-27-17	
	12-27-17 12-27-17 12-27-17 12-27-17 12-27-17



VOLATILES by EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD			
Analyte	Res	sult	Spike	Level	Reco	overy	Limits	RPD	Limit	Flags		
SPIKE BLANKS												
Laboratory ID:	SB1227W1		SB1227W1									
	SB	SBD	SB	SBD	SB	SBD						
1,1-Dichloroethene	10.0	10.7	10.0	10.0	100	107	63-126	7	21			
Benzene	10.3	11.0	10.0	10.0	103	110	78-122	7	19			
Trichloroethene	10.0	11.1	10.0	10.0	100	111	63-120	10	20			
Toluene	10.6	11.6	10.0	10.0	106	116	79-124	9	19			
Chlorobenzene	10.7	11.8	10.0	10.0	107	118	78-120	10	19			
Surrogate:												
Dibromofluoromethane					99	98	75-127					
Toluene-d8					95	100	80-127					
4-Bromofluorobenzene					101	102	78-125					





Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
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- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
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- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Ζ-

ND - Not Detected at PQL PQL - Practical Quantitation Limit RPD - Relative Percent Difference



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

OnSite Environmental Inc.

Chain of Custody

Environmental Inc.		Ulla		T	G	JS	το	ay											F	age	1	of	1		
Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052	Turnaround Request (in working days)				Laboratory Number: 12-208																				
Project Name: Project Name: 700 Dexter HVOC Plume IA Project Manager: Tad Cline Sampled by: Kule Korbines	Sam	(Check One) e Day ys [dard (7 Days) analysis 5 Da (other)) 1 Day 3 Days ays)	r of Containers	-HCID	-Gx/BTEX	-Gx	-Dx (🗌 Acid / SG Clean-up)	s 8260C	nated Volatiles 8260C	A 8011 (Waters Only)	atiles 8270D/SIM v-level PAHs)	270D/SIM (low-level)	382A	chlorine Pesticides 8081B	phosphorus Pesticides 8270D/SIM	Ited Acid Herbicides 8151A	RA Metals	CA Metals	etals	and grease) 1664A	TD T			erre
Lab ID Sample Identification	Date Sampled	Time Sampled	Matrix	Numbe	NWTPH	NWTPH	NWTPH	NWTPH	Volatiles	Haloger	EDB EP	Semivo (with lov	PAHs 82	PCBs 8	Organoo	Organop	Chlorina	Total RC	Total MT	TCLP M	HEM (oil	HO			% Moistu
1 INF-121817	12/18/17	1158	W	3				_		X															T
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