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REMEDIAL INVESTIGATION, FOCUSED FEASIBILITY STUDY, AND CLEANUP ACTION PLAN

3301 SOUTH NORFOLK STREET AND 10100, 10200, AND 10230 EAST MARGINAL WAY SOUTH SEATTLE/TUKWILA, WASHINGTON

Submitted By:
Farallon Consulting, L.L.C.
975 5th Avenue Northwest
Issaquah, Washington 98027

Farallon PN: 1071-026

Prepared For:
Prologis, Inc.
Pier 1, Bay 1
San Francisco, California 94111

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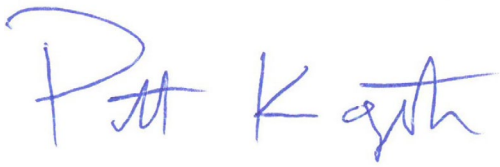
Prepared by:



Pete Kingston, L.G.
Senior Geologist

Reviewed by:

Scott Allin, R.E.P.A.
Principal Environmental Scientist

Gary Hokkanen
Principal Hydrogeologist

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ABBREVIATIONS AND ACRONYMS

2016 Phase I ESA	the Phase I Environmental Site Assessment conducted by Farallon Consulting, L.L.C. at 3301 South Norfolk Street and 10100, 10200, and 10230 East Marginal Way South in Seattle/Tukwila, Washington in September 2016
2016 Phase II ESA	the Phase II Environmental Site Assessment conducted by Farallon at 3301 South Norfolk Street and 10230 East Marginal Way South in Seattle/Tukwila, Washington in October 2016
AOC	Area of Concern
ARARs	applicable or relevant and appropriate requirements
bgs	below ground surface
CAP	Cleanup Action Plan
COCs	constituents of concern
DRO	total petroleum hydrocarbons as diesel-range organics
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
Farallon	Farallon Consulting, L.L.C.
FFS	Focused Feasibility Study
GRO	total petroleum hydrocarbons as gasoline-range organics
HASP	Health and Safety Plan
LCS	lead-containing soil
LDW	Lower Duwamish Waterway
mg/kg	milligrams per kilogram
µg/l	micrograms per liter
MTCA	Washington State Model Toxics Control Act Cleanup Regulation

NFA	No Further Action
NWAW	Northwest Auto Wrecking, Inc.
ORO	total petroleum hydrocarbons as oil-range organics
PAHs	polycyclic aromatic hydrocarbons
PID	photoionization detector
Property	the property at 3301 South Norfolk Street and 10230 East Marginal Way South in Seattle/Tukwila, King County, Washington
RCW	Revised Code of Washington
RI	Remedial Investigation
RI/FFS/CAP Report	Draft *Remedial Investigation, Focused Feasibility Study, and Cleanup Action Plan, 3301 South Norfolk Street and 10230 East Marginal Way South, Seattle/Tukwila, Washington* dated January 29, 2019, prepared by Farallon Consulting, L.L.C. (this report)
Site	the area where constituents of concern have come to be located at concentrations exceeding MTCA cleanup levels
TEE	Terrestrial Ecological Evaluation
Terra	Terra Associates, Inc.
UST	underground storage tank
VCP	Voluntary Cleanup Program
VOCs	volatile organic compounds
WAC	Washington Administrative Code

1.0 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) has prepared this Remedial Investigation, Focused Feasibility Study, and Cleanup Action Plan (RI/FFS/CAP Report) on behalf of Prologis, Inc. for the property at 3301 South Norfolk Street and 10100, 10200, and 10230 East Marginal Way South in Seattle/Tukwila, Washington (herein referred to as the Property) (Figures 1 and 2). For discussion purposes in this RI/FFS/CAP Report, the properties at 10100 and 10200 East Marginal Way are combined with the property at 3301 South Norfolk Street. This RI/FFS/CAP Report was prepared in accordance with the Washington State Model Toxics Control Act Cleanup Regulation (MTCA), as set forth in Chapter 173-340 of the Washington Administrative Code (WAC 173-340).

This RI/FFS/CAP Report provides sufficient information to support implementation of a cleanup action at the Property that will be conducted in conjunction with Property redevelopment. The Remedial Investigation (RI) and Focused Feasibility Study (FFS) portions of this RI/FFS/CAP Report summarize the results from the remedial investigation conducted at the Property, and present the conclusions from the focused feasibility study conducted to evaluate technically feasible cleanup alternatives for the affected media on the Property; the Cleanup Action Plan (CAP) portion of this RI/FFS/CAP Report presents the scope of work planned for implementing the selected cleanup approach described in the FFS portion.

From the 1950s to the present, there have been two primary uses for the Property:

- The 3301 South Norfolk Street property on the northern, eastern, and southern portions of the Property historically was used for commercial warehousing of food products, and included truck maintenance and repair operations; truck refueling facilities and associated underground storage tanks (USTs); and the use of USTs for storing heating oil, used oil, and Stoddard solvent.
- The 10230 East Marginal Way South property on the western portion of the Property historically was owned and used by Northwest Auto Wrecking, Inc. (NWAW) for automobile wrecking and parts salvaging. This portion of the Property currently is vacant.

Previous environmental investigations conducted at the 3301 South Norfolk Street property identified 12 Areas of Concern (AOCs), designated AOC-1 through AOC-12, primarily related to historical truck maintenance and fueling operations. This property was enrolled in the Washington State Department of Ecology (Ecology) Voluntary Cleanup Program (VCP) as "Unified Grocers Norfolk" and "Unified Grocers 3301 Norfolk" in July 2007, and was assigned VCP Project No. NW1807. Other Ecology identification numbers applicable to this portion of the Property include: Facility Site No. 73338176 and Cleanup Site No. 6584. Ecology terminated the VCP agreement with this property in October 2015 due to lack of cleanup progress.

The 10230 East Marginal Way South property previously was investigated and cleaned up, receiving a Partial Sufficiency Determination for soil from Ecology as described in Section 3.1, Previous Environmental Investigations and Cleanup Actions. This property was enrolled in the

VCP as "Northwest Auto Wrecking" in August 2007, and was assigned VCP Project No. NW1812. Other Ecology identification numbers applicable to this portion of the Property include: Facility Site No. 2287 and Cleanup Site No. 1877. Ecology terminated the VCP agreement with this property in October 2015 due to lack of cleanup progress.

Farallon subsequently designated AOC-13 as a new area of concern on the Property to represent limited residual groundwater contamination associated with the 10230 East Marginal Way South property, and arsenic groundwater contamination observed on other parts of the Property.

The remedial investigation conducted by Farallon and others at the Property has delineated the "Site," which is defined under MTCA as the area where constituents of concern (COCs) have come to be located at concentrations exceeding MTCA cleanup levels. The boundaries of the Site and AOC locations are shown on Figure 3. A cleanup action for the Site will be conducted during redevelopment of the Property for construction of a complex of new and existing commercial/industrial buildings that includes internal roadways, parking areas, and landscaping that will cover the entire Property. Redevelopment will require extensive reconfiguration of existing surface features at the Property. Therefore, the cleanup action to remove concentrations of residual contaminants in soil and groundwater exceeding MTCA cleanup levels will be implemented concurrently with Property redevelopment.

The cleanup actions presented in the CAP portion of this RI/FFS/CAP Report will be performed in accordance with MTCA under the VCP. The cleanup actions will be substantially equivalent to remedial actions conducted or supervised by Ecology, consistent with WAC 173-340-545(2). The cleanup actions will meet the threshold requirements of WAC 173-340-360, including protection of human health and the environment, compliance with cleanup standards, and compliance with applicable state and federal laws.

1.1 PURPOSES AND OBJECTIVE

The purpose of the RI/FFS/CAP Report is to summarize the results from subsurface investigations conducted at the Property by Farallon and others; evaluate and select cleanup actions under WAC 173-340-350 through WAC 173-340-390; and identify the steps required to implement the cleanup actions. The RI/FFS/CAP Report describes the selected cleanup actions to clean up soil and/or groundwater at 6 of the 13 AOCs on the Property where residual contaminant concentrations exceeding MTCA cleanup levels. No further assessment of the other 7 AOCs is warranted.

The objective of the cleanup action is to meet Ecology requirements for a written determination issued by Ecology stating that no further remedial action is necessary at the Site (i.e., a No Further Action [NFA] determination).

The purpose of the remedial investigation was to collect and evaluate sufficient information to support the development and evaluation of technically feasible cleanup alternatives in accordance with WAC 173-340-360 through 173-340-390. The remedial investigation was based on

subsurface investigations completed by Farallon and others that provided sufficient data for evaluation and selection of technically feasible cleanup actions.

The purpose of the focused feasibility study was to develop and evaluate cleanup action alternatives to facilitate selection of final cleanup actions at the Property in accordance with WAC 173-340-350(8). The focused feasibility study focused on a remediation technology appropriate and applicable for implementation during Property redevelopment in accordance with redevelopment plans and applicable MTCA regulations.

The purpose of the CAP portion of the RI/FFS/CAP Report is to present the scope of work for the selected cleanup actions described in the RI/FFS portion to protect human health and the environment and to meet MTCA requirements for an NFA determination for the Site. The CAP has been prepared in accordance with the requirements of WAC 173-340-380(1).

1.2 CONTACT INFORMATION

Contact information for the individuals designated as project coordinators for the Property is provided below:

- Property Owner Representative:

  Ms. Janet Frentzel
  Vice President, Global Environmental and Engineering
  Prologis, Inc.
  Pier 1, Bay 1
  San Francisco, California 94111
  Phone: (415) 733-9431
  Email: jfrentzel@prologis.com

- Ecology Site Manager:

  No Ecology Site Manager has been assigned.

- Consultant Contacts:

  Mr. Pete Kingston, L.G.
  Senior Geologist
  Farallon Consulting, L.L.C.
  1809 7th Avenue, Suite 1111
  Seattle, Washington 98101
  Phone: (425) 394-4146
  Email: dlance@farallonconsulting.com

Mr. Scott Allin, R.E.P.A.
Principal Environmental Scientist
Farallon Consulting, L.L.C.
101 Parkshore Drive
Folsom, California 95630
Phone: (916) 616-8113
Email: sallin@farallonconsulting.com

1.3 ORGANIZATION

This RI/FFS/CAP Report includes the following sections:

- **Section 2, Property Background,** provides a description of the Property location and local land use, a summary of historical Property uses, and a description of the geology and hydrology in the vicinity of the Property.
- **Section 3, Remedial Investigation,** presents a summary of environmental investigations and interim cleanup actions conducted at the Property, and provides a summary of source areas and the extent of COCs at the Property.
- **Section 4, Conceptual Site Model,** provides a summary of the conceptual site model derived from the results from the remedial investigation conducted at the Property, including identification of applicable or relevant and appropriate requirements (ARARs), COCs, and media of concern; identification of cleanup standards; and a discussion concerning the fate and transport characteristics of the COCs.
- **Section 5, Focused Feasibility Study,** provides a summary of the results from the FFS, and identifies the cleanup alternative recommended for implementation at the Property, and the rationale for its selection.
- **Section 6, Cleanup Action Plan,** presents the CAP for the selected cleanup action, including its object and elements, and a description of the preparation of the Property, soil excavation and dewatering, soil segregation and stockpiling, soil disposal, and soil treatment by in-situ chemical oxidation.
- **Section 7, Documentation Requirements,** describes the requirements for documentation of field activities and health and safety issues during the cleanup action. Also discussed is the Closure Report, which will be prepared to describe and summarize the cleanup action conducted, and post-closure reporting.
- **Section 8, Bibliography,** provides a listing of the documents used in preparing this RI/FFS/CAP Report.
- **Section 9, Limitations,** provides Farallon's standard limitations.

Information supporting this RI/FFS/CAP Report is provided in accompanying Figures 1 through 7, Tables 1 through 9, and Appendices A through C.

2.0 PROPERTY BACKGROUND

This section provides a description of the Property location, land use, and zoning; a summary of historical uses of the Property; and a description of the local geology and hydrology.

2.1 PROPERTY DESCRIPTION

The Property is in an industrial area of Seattle/Tukwila, Washington[1] and consists of 29 King County parcels on approximately 63 acres of land (Figure 2). The Property and surrounding vicinity are zoned for industrial and manufacturing uses in both Seattle and Tukwila. The Property currently comprises the primary addresses 3301 South Norfolk Street and 10100, 10200, and 10230 East Marginal Way South (Figure 2). Ten main buildings and several smaller storage structures, all constructed between 1952 and 2012, are present on the Property. The main buildings include (Figure 3):

- An office building on the northern portion of the Property (Office Building).
- A dry grocery warehouse on the eastern portion of the Property (Dry Grocery Warehouse).
- A refrigerated perishables warehouse on the southern portion of the Property (Perishables Warehouse). This building will remain intact as part of redevelopment.
- A returns building on the central portion of the Property (Returns Building).
- A truck-wash building on the south-central portion of the Property (Truck Wash).
- A former trailer maintenance shop on the north-central portion of the Property (Former Trailer Maintenance Shop).
- A former truck repair shop on the north-central portion of the Property (Former Truck Repair Shop).
- A maintenance shop on the southwestern portion of the Property (South Maintenance Shop).
- An office building previously occupied by banking institutions on the northwestern portion of the Property (Former Bank Building).
- A walkup/drive-through cafe building and former Humble Oil service station on the northwestern corner of the Property (Cafe Building/Former Old Humble Oil Service Station).

Most of the buildings were constructed prior to 1985. The Cafe Building is the newest building, constructed in 2012. The 10230 East Marginal Way South portion of the Property contains unpaved surfaces; the remainder of the Property is covered by buildings or asphalt- or

[1] The city limits of both the City of Seattle and the City of Tukwila pass through the central portion of the Property, such that some parcels reside within the City of Seattle and others within the City of Tukwila (Figure 2).

concrete-paved surfaces. Access to the Property is gained from East Marginal Way South through a guarded entrance gate near the western Property boundary.

2.2 PROPERTY HISTORY

The following history of Property uses was summarized in the report documenting the Phase I Environmental Site Assessment conducted by Farallon (2016a) at 3301 South Norfolk Street and 10100, 10200, and 10230 East Marginal Way South in Seattle/Tukwila, Washington dated December 14, 2016 (2016 Phase I ESA).

The Property was shown on historical documents reviewed as primarily undeveloped land in the late 1800s, with a railroad spur running through the central portion of the Property in the early 1900s. By the 1930s, a majority of the Property was used for agricultural purposes, and various small commercial-style buildings were present along East Marginal Way South. By 1953, the Dry Grocery Warehouse, the Office Building, and the Former Truck Repair Shop were present on the northern and eastern portions of the Property, and trailer parking was apparent along the western portion of the Property. Automobile wrecking activities associated with the NWAW property was apparent in 1965; hotels and trailer parking were identified on the western portion of the Property in 1966; the Humble Oil service station appeared on the northwestern portion of the Property in 1969; the Dry Grocery Warehouse was expanded southward in 1977; and the Perishables Warehouse and the Former Bank Building were present in 1980. The NWAW property appeared to be cleared of structures and automobiles by 2009 and currently remains undeveloped.

2.3 GEOLOGY AND HYDROLOGY

A summary of the geology and hydrology at the Property is provided below.

2.3.1 Geology

The Puget Sound region is underlain by Quaternary sediments deposited by and during a number of glacial advances and retreats that created the existing subsurface conditions. Regional sediments consist primarily of interlayered and/or sequential deposits of alluvial clays, silts, and sands that typically are situated over deposits of glacial till consisting of silty sand to sandy silt with gravel. Outwash sediments consisting of sands, silts, clays, and gravels were deposited by rivers, streams, and post-glacial lakes during the glacial retreats. With the exception of the most-recent recessional deposits, the outwash sediments have been over-consolidated by the overriding ice sheets (Galster and Laprade 1991).

Based on descriptions from previous environmental investigations conducted at the Property, the general area consists of fill material extending from the ground surface to a depth of 4 to 10 feet below ground surface (bgs). Underlying the fill are native interbedded silts and sands with clay to depths of 10 to 12 feet bgs overlying fine to medium sand extending to a maximum depth of 55 feet bgs.

2.3.2 Hydrology

Unconfined groundwater, as measured in borings and groundwater monitoring wells on the Property, is present at depths between approximately 5 and 12 feet bgs. Inferred groundwater flow direction is westward, toward the adjacent Lower Duwamish Waterway (LDW) (Figures 1 and 3).

The stormwater conveyance system for the 3301 South Norfolk Street portion of the Property discharges to the City of Seattle stormwater drainage main, which receives stormwater from surrounding properties and discharges directly into the LDW. Stormwater on the 10230 East Marginal Way South portion of the Property infiltrates directly into soil; no stormwater collection or conveyance features are present on that portion.

3.0 REMEDIAL INVESTIGATION

This section summarizes the results from the primary subsurface investigations and interim cleanup actions conducted at the Property, and discusses the sources and extent of the COCs remaining from historical operations on the Property and requiring cleanup.

3.1 PREVIOUS ENVIRONMENTAL INVESTIGATIONS AND CLEANUP ACTIONS

As part of the 2016 Phase I ESA, Farallon reviewed approximately 80 historical documents related to environmental matters at the Property, including reports for subsurface investigations, interim cleanup actions, and groundwater monitoring. The documents reviewed are listed in Section 8.0, Bibliography. The historical documents reviewed for the 3301 South Norfolk Street property identified AOC-1 through AOC-12 as investigated by others and primarily related to truck maintenance and fueling operations on the Property. Based on the findings from the 2016 Phase I ESA, Farallon identified a new AOC designated as AOC-13. Select AOC locations and Property features are shown on Figure 3. AOC-13 covers a large area on the western portion of the Property associated with the NWAW property and is shown on Figure 3 within a dashed outline.

The sections below provide a summary of each AOC as originally described in the 2016 Phase I ESA Report, with revisions made to include findings from the Phase II Environmental Site Assessment conducted at the Property by Farallon (2016b) in October 2016 (2016 Phase II ESA). In summary, Farallon determined that no further action is warranted for AOCs 1, 3, 7, 8, 9, 10, and 12, and further action is warranted for AOCs 2, 4 through 6, 11, and 13.

3.1.1 AOC-1: Dry Grocery Warehouse

AOC-1 is on the eastern portion of the Property (Figure 3), where three heating oil USTs designated F-UST-A through F-UST-C reportedly were formerly present beneath an expanded footprint of the current Dry Grocery Warehouse building. According to original building plans reviewed during an assessment conducted by Terra Associates, Inc. (Terra) (2001b) in 2001, USTs F-UST-A and F-UST-B were removed, and UST F-UST-C was abandoned in-place. The approximate locations of USTs F-UST-A and F-UST-B are shown on Figure 3; the location of UST F-UST-C is unknown, but was assumed to be in the same general area as the other two USTs. A geophysical survey performed at the Property by Terra (2001b) did not identify the presence of an abandoned in-place UST, although the survey was limited by reinforcement steel in the underlying concrete slab, and the presence of thick fill material overlying the UST area. Petroleum hydrocarbon constituents were not detected at concentrations exceeding laboratory reporting limits in reconnaissance groundwater samples collected by Terra (2001b) in 2001 from five borings south and west of the former USTs outside the current building footprint.

No additional information regarding the UST removal or abandonment beyond that provided by Terra (2001b) was identified. The reconnaissance groundwater data collected by Terra indicated there was not a significant release of petroleum hydrocarbon constituents to groundwater. Based on the Terra (2001b) findings, Farallon concluded that the USTs formerly present in this area are considered a de minimis condition in connection with the Property. The potential presence of an

abandoned in-place UST if encountered in the area will be addressed during redevelopment of the Property.

3.1.2 AOC-2: Perishables Warehouse

AOC-2 is on the southern portion of the Property (Figure 3), where a diesel fuel UST designated F-UST-D formerly was present (Figure 4). The UST was removed in 1992. Total petroleum hydrocarbons as diesel-range organics (DRO) were detected at a concentration exceeding the MTCA Method A cleanup level in a soil sample collected proximate to the former UST in 2001 (Terra 2001b). DRO and total petroleum hydrocarbons as gasoline-range organics (GRO) were detected at concentrations exceeding MTCA Method A cleanup levels in a reconnaissance groundwater sample collected proximate to the former UST. DRO, GRO, or volatile petroleum constituents were not detected at concentrations exceeding laboratory reporting limits or MTCA Method A cleanup levels in a groundwater sample collected from monitoring well MW-101 installed down-gradient of the UST. Based on the investigation results, soil excavation activities were implemented, at which time the UST was found to be contained in a concrete vault (Terra 2002b). The soil and water contents of the vault were removed, and the vault was backfilled with controlled-density fill. Subsequent excavating along the exterior sides of the vault removed soil containing residual DRO. DRO or total petroleum hydrocarbons as oil-range organics (ORO) were not detected at concentrations exceeding MTCA Method A cleanup levels in confirmation soil samples collected proximate to the former UST. GRO and volatile petroleum constituents were not analyzed for in soil samples collected during the exterior vault excavation.

The 2016 Phase II ESA included advancing borings F-1 and F-2 adjacent to the vault for collection of soil and reconnaissance groundwater samples for laboratory analysis for COCs (Figure 4). Farallon's assessment also included collection of a groundwater sample from monitoring well MW-101. DRO and total naphthalenes were detected at concentrations exceeding MTCA Method A cleanup levels in one soil sample collected from boring F-1 (Tables 1 and 2). Other analytes were detected in soil samples at concentrations less than MTCA cleanup levels or laboratory reporting limits. DRO and ORO were detected at concentrations exceeding MTCA Method A cleanup levels in the reconnaissance groundwater sample collected from boring F-2 (Table 5). DRO or ORO was not detected at a concentration exceeding MTCA Method A cleanup levels in the groundwater sample collected from down-gradient monitoring well MW-101, suggesting that the impact to groundwater is isolated to the area immediately proximate to the former UST location. The estimated extent of DRO and naphthalenes in soil, and DRO and ORO in groundwater are shown on Figure 4. Logs for borings F-1 and F-2 are provided in Appendix A. The corresponding laboratory analytical report is provided in Appendix B.

Dissolved arsenic was detected at concentrations exceeding the MTCA Method A cleanup level in the reconnaissance groundwater samples collected from borings F-1 and F-2, and in the groundwater sample collected from monitoring well MW-101 (Table 8). As discussed in Section 3.1.13, AOC-13: Northwest Auto Wrecking Property, elevated dissolved arsenic concentrations in groundwater appear to be related to subsurface geochemical changes that increase the solubility of naturally occurring arsenic in areas where residual petroleum hydrocarbon constituents are present,

even at low concentrations. Dissolved-arsenic concentrations are expected to decrease over time as cleanup actions and natural degradation processes decrease petroleum hydrocarbon concentrations.

According to the information presented above, additional removal of soil proximate to the former location of UST F-UST-D is needed to meet MTCA soil cleanup levels. Groundwater impact down-gradient of former UST F-UST-D is limited, and will be remedied through soil source removal during Property redevelopment, and groundwater natural attenuation processes.

3.1.3 AOC-3: Truck Wash, and Former Location of UST F-UST-E

AOC-3 is on the southern portion of the Property north of AOC-2 (Figure 3), and consists of the Truck Wash facility, which previously contained a group or cluster of USTs designated UST F-UST-E (Figure 3). The number of USTs previously in the cluster is not known. The USTs reportedly were installed, but were never placed into service. A geophysical survey performed by Terra (2001b) identified an area of disturbed soil in the assumed location of UST F-UST-E. No field-screening evidence of petroleum releases to soil was identified in two borings advanced by Terra (2001b) in the UST F-UST-E area, and petroleum hydrocarbon constituents were not detected at concentrations exceeding laboratory reporting limits in reconnaissance groundwater samples collected from the borings.

Based on the Terra (2001b) soil observations and reconnaissance groundwater analytical results, Farallon concluded that further assessment of UST F-UST-E was not warranted. Farallon also concluded that the potential for releases to soil and groundwater from historical truck washing operations is low, and represents a de minimis condition in connection with the Property.

3.1.4 AOC-4: Current Fueling Area

AOC-4 is on the south-central portion of the Property (Figure 3) and currently is used for fueling trucks. Three 20,000-gallon USTs were installed in 1979: the western UST for gasoline storage; and the central and eastern USTs for diesel fuel storage (Figure 5). In 1998, the USTs were re-lined to meet upgrade requirements (Global Environmental [Global] 1998). At that time, the eastern diesel fuel UST, designated F-UST-F, was found to be compromised, and was removed, along with 67 tons of diesel fuel-impacted soil. A petroleum release also was identified proximate to the fuel dispenser island, where approximately 150 tons of petroleum-impacted soil was removed. GRO, DRO, and related volatile petroleum constituents were detected at concentrations less than MTCA Method A cleanup levels in confirmation soil samples collected proximate to the UST and the dispenser island. One exception was noted where GRO was detected at a concentration exceeding the MTCA Method A cleanup level in the bottom soil sample collected near the southwestern corner of the dispenser island excavation. That petroleum-impacted soil apparently was left in-place. Petroleum hydrocarbon constituents and related volatile components were not detected in a groundwater sample collected from monitoring well MW-2, located near the western side of the UST bed, presumably down-gradient of the USTs. Monitoring well MW-2 was not located during Farallon's reconnaissance of AOC-4 during the 2016 Phase II ESA. No monitoring wells are present down-gradient of the dispenser island release area.

In 2001, petroleum-stained soil was observed in surface soil proximate to the northern edge of the UST cover slab. The staining was the result of rainfall repeatedly washing minor fuel spills off the side of the slab. DRO and ORO were detected at concentrations exceeding the MTCA Method A cleanup up level in soil samples collected at that time (Terra 2001b). In 2002, approximately 2 cubic yards of petroleum-impacted soil was removed (Terra 2002b). Results for confirmation soil samples collected following soil removal suggested that petroleum hydrocarbon constituents detected at concentrations exceeding MTCA Method A cleanup levels in soil were removed from the area. Based on the remedial actions performed, no further assessment appears warranted for the petroleum-stained area.

The USTs reportedly were upgraded again in 2004 (Global Diving and Salvage, Inc.). DRO and ORO were detected at concentrations exceeding MTCA Method A cleanup levels in two reconnaissance groundwater samples collected proximate to the USTs and dispenser island in 2007 (Dalton, Olmstead & Fuglevand, Inc. [DOF] 2007). GRO was not detected in the 2007 reconnaissance groundwater samples; the samples were not analyzed for volatile petroleum constituents.

The 2016 Phase II ESA included advancing borings F-5 and F-7 through F-10 proximate to the facilities of the Current Fueling Area for collection of soil and reconnaissance groundwater samples for laboratory analysis (Figure 5). Petroleum hydrocarbon constituents were not detected at concentrations exceeding laboratory reporting limits in soil samples collected from the borings. DRO was detected at concentrations exceeding the MTCA Method A cleanup level in the reconnaissance groundwater samples collected from borings F-7 through F-10; ORO was detected at concentrations exceeding the MTCA cleanup level in the reconnaissance groundwater samples collected from borings F-8 and F-10 (Table 5). The highest concentrations of DRO and ORO in groundwater were detected in samples collected from borings F-8 and F-10, located down-gradient of the USTs (Figure 5). Logs for the borings are provided in Appendix A. The corresponding laboratory analytical report is provided in Appendix B.

According to the investigation and soil cleanup results discussed above, petroleum hydrocarbon constituents are present at concentrations exceeding MTCA cleanup levels in groundwater, and possibly in soil, proximate to the Current Fueling Area. Additional removal of source soil will be conducted during Property redevelopment. Groundwater is expected to be remediated by natural attenuation processes following the source removal.

3.1.5 AOC-5: Former Trailer Maintenance Shop

AOC-5 is on the north-central portion of the Property and was used for trailer and refrigeration trailer repair and maintenance (Figure 3). The northern bay of the shop may have been unpaved until 2001 (Terra 2001b). Terra (2001b) advanced five borings around the exterior of the shop in 2001 for collection of soil and reconnaissance groundwater samples for laboratory analysis. Soil samples were analyzed for petroleum hydrocarbon constituents; groundwater samples were analyzed for petroleum hydrocarbon constituents, volatile organic compounds (VOCs), and polycyclic aromatic hydrocarbons (PAHs). DRO was detected at a concentration slightly less than the MTCA Method A cleanup level in one soil sample collected at a depth of 7 to 9 feet bgs.

Concentrations of analytes detected in groundwater samples were less than the laboratory reporting limits, with the exception of one sample in which methylene chloride and phthalates were detected but attributed to laboratory contamination.

The 2016 Phase II ESA included advancing borings F-11 through F-14 proximate to the Former Trailer Maintenance Shop for collection of soil and reconnaissance groundwater samples for laboratory analysis (Figure 6). COCs were detected at concentrations less than MTCA Method A and B cleanup levels in soil and groundwater samples collected from the borings (Tables 1 through 3 and 5 through 8). None of the COCs were detected at a concentration exceeding laboratory reporting limits, with the exception of dissolved arsenic, which was detected at a concentration exceeding the MTCA Method A cleanup level in the reconnaissance groundwater sample collected from boring F-14 (Figure 6; Table 8). Dissolved arsenic has been detected at concentrations exceeding the MTCA Method A cleanup level in groundwater samples collected from various locations on the Property. Logs for borings F-11 through F-14 are provided in Appendix A. The corresponding laboratory analytical report is provided in Appendix B.

As discussed in Section 3.1.13, AOC-13: Northwest Auto Wrecking Property, elevated concentrations of dissolved arsenic detected in groundwater appear to be related to subsurface geochemical changes that increase the solubility of naturally occurring arsenic in areas where residual petroleum hydrocarbon constituents are present, even at low concentrations. Dissolved arsenic concentrations are expected to decrease over time as natural degradation processes continue to decrease petroleum hydrocarbon concentrations in AOC-5.

3.1.6 AOC-6: Former Truck Repair Shop

AOC-6 is on the northern portion of the Property in an area historically used for truck repair and maintenance operations (Figure 3). Four former USTs were used in this area: 10,000-gallon diesel fuel UST F-UST-G; 10,000-gallon gasoline UST F-UST-H; 1,000-gallon gasoline UST F-UST-I; and 500-gallon waste-oil UST F-UST-J (Terra 2001b) (Figure 6). The USTs reportedly were removed in the late 1980s. Numerous soil borings were advanced, and monitoring wells were installed during subsurface investigations in the area in 2001 and 2007 (DOF 2007); petroleum constituents were detected at concentrations exceeding MTCA Method A cleanup levels in soil and groundwater. Free product was observed in several monitoring wells during groundwater sampling.

Approximately 12,200 tons of petroleum-impacted soil and 17,500 gallons of petroleum-impacted groundwater were removed from AOC-6 in July and August 2007 for off-Property disposal (DOF 2009c). An outline indicating the approximate extent of the remedial excavation area is shown on Figure 6. Soil was excavated at depths of 9 to 15 feet bgs. The excavation was backfilled with imported gravelly silty sand (glacial till) mixed with oxygen-release compound to enhance natural degradation of residual petroleum hydrocarbon constituents. Results for confirmation soil samples indicated that soil containing petroleum hydrocarbon constituents at concentrations exceeding

MTCA Method A cleanup levels had been removed from AOC-6, with the following exceptions proximate to the southwestern corner of the north-adjacent Office Building:

- Benzene was detected at a concentration exceeding the MTCA Method A cleanup level in an excavation bottom soil sample collected in the northern portion of the excavation at a depth of approximately 15 feet bgs. Additional contaminated soil could not be removed because the excavator could not reach below a maximum depth of 15 feet bgs, and because utility lines passing through the zone of excavation could not be supported without risk of damage.
- GRO and benzene were detected at concentrations exceeding MTCA Method A cleanup levels in excavation sidewall soil samples collected from the northern portion of the excavation. Additional contaminated soil could not be removed without providing structural support for a portion of the adjacent Office Building.

The estimated extent of the area where concentrations of GRO and/or benzene in soil exceeded MTCA Method A cleanup levels is shown on Figure 6. Following completion of the soil excavation, additional monitoring wells MW-AG1 and MW-AG2 were installed to supplement existing monitoring wells MW-4, MW-203, and MW-207 to provide a network of five monitoring wells around the AOC-6 excavation area (DOF 2009g) (Figure 6). Petroleum hydrocarbon constituents were not detected at concentrations exceeding laboratory reporting limits in samples collected during four monitoring well sampling events performed between November 2009 and March 2011 (DOF 2014b).

In 2011, Ecology (2011a) issued an opinion letter stating that further remedial action was required to receive an NFA determination for AOC-6 based on the residual petroleum impact in the northern portion of the excavation. Ecology suggested preparing a remedial investigation and feasibility study report, including a disproportionate cost analysis. In 2015, Ecology (2015b) terminated the VCP agreement for AOC-6 due to a lack of further cleanup activity.

The 2016 Phase II ESA included advancing borings F-15 through F-18 in AOC-6 for collecting soil gas samples and reconnaissance groundwater samples, and collecting groundwater samples from monitoring wells MW-AG1, MW-AG2, MW-4, MW-203, and MW-207 for laboratory analysis (Figure 6). The soil gas sampling was performed to evaluate the vapor intrusion pathway proximate to the area of residual petroleum impact and the north-adjacent Office Building. The groundwater sampling was performed to evaluate current groundwater conditions and to assess for the potential presence of arsenic in groundwater.

VOC analytes were detected at concentrations less than MTCA screening levels in soil gas samples collected from borings F-15 through F-18 (Ecology 2009c), with the exception of chloroform, which was detected at a concentration exceeding the MTCA screening level in the sample collected from boring F-18 (Table 9). Chloroform was not detected in groundwater samples collected from the nearby monitoring wells. Chloroform is a common product of the chlorine disinfection of drinking water and may indicate the use of treated water for maintaining the landscaping around the Office Building.

Petroleum hydrocarbon constituents were detected at concentrations less than MTCA cleanup levels or were not detected at concentrations exceeding laboratory reporting limits in reconnaissance groundwater samples and samples collected from groundwater monitoring wells (Tables 5 and 6). The only exceptions were DRO, GRO, and benzene, which were detected at concentrations exceeding MTCA Method A cleanup levels in the reconnaissance groundwater sample collected from boring F-17, located down-gradient of the area of known petroleum impact (Figure 6; Table 5). The estimated extent of the area where concentrations of DRO, GRO, and benzene in groundwater exceed MTCA Method A cleanup levels is shown on Figure 6. Dissolved arsenic was detected at concentrations exceeding the MTCA cleanup level in the reconnaissance groundwater sample collected from boring F-18, and in groundwater samples collected from monitoring wells MW-AG2, MW-4, and MW-207 (Table 8). Logs for borings F-15 through F-18 are provided in Appendix A. The corresponding laboratory analytical report is provided in Appendix B.

Based on the information presented above, additional cleanup action will be needed to meet the regulatory requirements for the cleanup of soil and groundwater proximate to the southeastern corner of the Office Building. Because access to residual petroleum hydrocarbon constituents in soil proximate to the Office Building remains limited, future cleanup actions will be performed in conjunction with Property redevelopment activities and after demolition of the Office Building. Following soil source removal, natural attenuation processes are expected to be effective in reducing concentrations of petroleum hydrocarbon constituents in groundwater to less than MTCA Method A cleanup levels. Dissolved arsenic in groundwater is expected to decrease to concentrations less than the MTCA Method A cleanup level following the soil source removal.

3.1.7 AOC-7: Former Automobile Service Stations

AOC-7 is on the western portion of the Property adjacent to East Marginal Way South (Figure 3), where one or more historical automobile service stations may have operated. Historical information reported in the 2016 Phase I ESA Report (Farallon 2016b) included the following:

- A “gas station with shop” constructed in 1925 at 10410 East Marginal Way South, including a 1938 note indicating the presence of two 550-gallon USTs that were not usable because of leaks; and
- A Texaco service station constructed in 1928 at 10422 East Marginal Way South.

In 2001, a geophysical survey was performed in the area. Five borings were advanced to investigate anomalies encountered during the geophysical survey (Terra 2001b). Petroleum constituents were not detected at concentrations exceeding laboratory reporting limits in soil samples collected from two of the borings. GRO and benzene were detected at concentrations exceeding MTCA Method A cleanup levels in one reconnaissance groundwater sample.

Subsequent testing conducted in AOC-7 by DOF (2009a) in 2007 and 2008 as part of investigation activities conducted at adjacent AOC-13 included advancing five borings and five shallow hand-auger borings. DRO, ORO, GRO, and the metals arsenic, cadmium, and lead were detected

at concentrations less than MTCA Method A cleanup levels in soil samples collected from several borings. Benzene, toluene, ethylbenzene, or xylenes were not detected at concentrations exceeding laboratory reporting limits in any of the soil samples analyzed. Petroleum constituents, including GRO and benzene, or the metals cadmium and lead were not detected at concentrations exceeding laboratory reporting limits in three reconnaissance groundwater samples collected from AOC-7 (DOF 2009a).

Based on the results from investigations previously conducted at AOC-7, Farallon concluded that no further assessment was warranted.

3.1.8 AOC-8: Returns Building

AOC-8 is on the central portion of the Property (Figure 3), and was identified during a 2001 investigation by Terra (2001b) as a potential fueling facility based on review of a 1966 Sanborn map. Terra subsequently conducted a geophysical survey over the area, but did not identify evidence of USTs. Terra also advanced three soil borings proximate to reported fueling facility features shown on the Sanborn map. Soil samples collected from the borings did not show field evidence of petroleum hydrocarbons; no samples were submitted for analysis. DRO, ORO, or GRO was not detected at concentrations exceeding laboratory reporting limits in reconnaissance groundwater samples collected from the borings.

Based on these findings, Farallon concluded that no further assessment of AOC-8 was warranted.

3.1.9 AOC-9: Employee Parking Lot

AOC-9 is in the employee parking lot southwest of the Office Building on the northern portion of the Property (Figure 3). During a 2001 investigation by Terra (2001b), a suspected fuel UST was identified on historical drawings. A subsurface geophysical survey conducted by Terra did not identify the presence of a UST in the area. Terra advanced two soil borings proximate to the assumed UST location to assess for the potential presence of petroleum hydrocarbon constituents in soil and groundwater. Soil samples collected from the borings did not show field evidence of petroleum hydrocarbons; no samples were submitted for analysis. DRO, ORO, or GRO was not detected at concentrations exceeding laboratory reporting limits in reconnaissance groundwater samples collected from the borings.

Based on these findings, Farallon concluded that no further assessment of AOC-9 was warranted.

3.1.10 AOC-10: Background Areas

AOC-10 represents potential contaminant sources located up-gradient and off the Property to the east. Terra (2001b) advanced two borings near the eastern Property boundary to screen for potential chemical impact to groundwater. Petroleum hydrocarbon constituents, VOCs, or PAHs were not detected at concentrations exceeding laboratory reporting limits in the reconnaissance groundwater samples collected from the borings.

Based on these findings, Farallon concluded that no further assessment of AOC-10 for potential up-gradient contaminant sources off the Property was warranted.

3.1.11 AOC-11: South Maintenance Shop

AOC-11 is on the southwestern portion of the Property (Figure 3), where two USTs were encountered and removed by a utility contractor in 1995 during installation of a subsurface water line (Global 1996). Archive records reviewed for the 2016 Phase I ESA indicated that the USTs were associated with former dry-cleaning operations conducted on this portion of the Property by Wolff Cleaners. The USTs consisted of 450-gallon vertically installed UST F-UST-L, and 300-gallon horizontally installed UST F-UST-K. Analysis of the UST contents and of soil samples collected adjacent to the USTs suggested that Stoddard solvent was previously stored in the USTs (Global 1996). No chlorinated dry-cleaning solvents such as tetrachloroethene or trichloroethene were detected at concentrations exceeding laboratory reporting limits in the soil samples collected proximate to the former USTs.

The 2016 Phase II ESA included advancing borings F-20 through F-23 at accessible locations to evaluate subsurface conditions proximate to the South Maintenance Shop (Figure 7). Soil and reconnaissance groundwater samples were collected for laboratory analysis. Petroleum hydrocarbon constituents, VOCs, PAHs, and arsenic either were detected at concentrations less than MTCA Method A or B cleanup levels or were not detected at concentrations exceeding laboratory reporting limits in the soil and reconnaissance groundwater samples collected from the borings (Tables 1 through 3 and 5 through 8). An exception was DRO, which was detected at a concentration exceeding the MTCA Method A cleanup level in the reconnaissance groundwater sample collected from boring F-23, located south of the South Maintenance Shop (Figure 7). However, the reconnaissance groundwater sample contained very high turbidity, which may have resulted in a detection of DRO that was biased high.

Based on these findings, additional groundwater characterization proximate to boring F-23 will be evaluated in conjunction with Property redevelopment.

3.1.12 AOC-12: Former Old Humble Oil Service Station

AOC-12 is in the northwestern corner of the Property (Figure 3), and is the former location of an automobile service station known as “Old Humble Oil” at 10056 East Marginal Way South. Five USTs formerly were present at AOC-12: 6,000-gallon gasoline UST F-UST-M; 6,000-gallon diesel fuel UST F-UST-N; 6,000-gallon gasoline UST F-UST-O; 600-gallon heating oil UST F-UST-P; and waste-oil UST F-UST-Q, which later was discovered to be a dry well (Terra 1989). AOC-12 also contained a dispenser island, a septic tank, and an oil-water separator. All features related to Old Humble Oil were removed in 1989.

Petroleum releases were identified at the former service station, primarily associated with a dry well used for disposal of waste oil. In 1991, approximately 510 cubic yards of soil was excavated, and 11,000 gallons of groundwater was removed for disposal off the Property (Terra 1991). Subsequent groundwater extraction from two wells located down-gradient of the identified

releases was performed periodically. Results from additional groundwater monitoring performed until 1993 indicated that concentrations of petroleum constituents in groundwater had decreased over time (Terra 1993). VOCs and dissolved lead were not detected at concentrations exceeding MTCA Method A cleanup levels in groundwater samples collected in February 1993. Additional soil sampling was performed along the northern Property boundary in 1998 to screen an area of previous petroleum-impacted soil using updated analytical methods (Terra 1998). DRO and ORO were not detected at concentrations exceeding MTCA Method A cleanup levels in the soil samples collected from the borings. Based on the cumulative results, Ecology (1998) issued an NFA determination for AOC-12 in December 1998. In 2007, a boring was advanced near the western property line proximate to the former down-gradient monitoring well on AOC-12 to collect reconnaissance groundwater samples to confirm previous groundwater analytical results (DOF 2007). Petroleum hydrocarbon constituents or VOCs were not detected at concentrations exceeding laboratory reporting limits in the reconnaissance groundwater sample collected from the boring. The only exception was detection of the VOC carbon disulfide at a concentration less than the MTCA Method B cleanup level.

Based on the remedial actions and compliance monitoring completed and the NFA determination issued by Ecology, Farallon concluded that no further assessment of AOC-12 was warranted.

3.1.13 AOC-13: Northwest Auto Wrecking Property

AOC-13 is on the western portion of the Property at the 10230 East Marginal Way South address (Figure 3) and is referred to as the NWAW property, which was used for automobile wrecking and parts salvaging from 1958 until approximately 2007 (DOF 2008c). AOC-13 historically was surrounded on the northern, eastern, and southern sides by the 3301 South Norfolk Street property (Figure 2). The western portion of AOC-13 contained several structures and features, including a garage building with hydraulic hoists, aboveground waste-oil storage tanks, a gasoline UST, several stove-oil USTs, a relic UST area, and a parts cleaning and dismantling shop. Asphaltic pavement was present around the buildings and on the extreme northern portion of AOC-13. The remaining portions of AOC-13 were used primarily to store wrecked automobiles and parts on bare ground or other unpaved surfaces. Access roads were paved with concrete. The northeastern portion of AOC-13 contained several soil stockpiles and fill areas, including: a petroleum-impacted soil stockpile totaling approximately 2,800 cubic yards (North Stockpile) that was generated in 1993 from excavation of a petroleum spill on the 3301 South Norfolk Street property; a lead-containing soil stockpile (LCS) totaling approximately 3,000 cubic yards (LCS Stockpile) that was generated in 1993 during excavation of surface soil containing crushed battery casings; and a battery chip fill area (DOF 2008c).

Voluntary remedial actions on AOC-13 began under Ecology oversight in 2007, and were performed in phases through 2010 (Sound Environmental Strategies 2007a; DOF 2008b, 2009a, 2009b, and 2010b). The remedial actions included:

- Testing the North Stockpile for disposal off the Property;
- Scraping surface soil containing battery chips and adding it to the LCS Stockpile;

- Stabilizing the LCS Stockpile, which was considered dangerous waste due to elevated lead concentrations, for disposal off the Property;
- Demolishing existing structures;
- Removing concrete pavement for crushing for use as backfill material on AOC-13;
- Investigating the historical stove-oil USTs on the western portion of AOC-13;
- Removing relic USTs and associated impacted soil for disposal off the Property;
- Removing hydraulic hoists and associated petroleum-impacted soil for disposal off the Property;
- Removing a gasoline UST and associated petroleum-impacted soil for disposal off the Property; and
- Excavating petroleum-impacted soil from a mid-1990s spill from the northeastern portion of AOC-13 for disposal off the Property.

The remedial actions included disposal off the Property of approximately 12,640 tons of petroleum- and metals-impacted soil. In some portions of AOC-13, petroleum-impacted groundwater also was extracted for disposal off the Property. COCs were not detected at concentrations exceeding MTCA Method A cleanup levels in confirmation soil or groundwater samples collected from the cleanup areas in AOC-13. The only exception was dissolved arsenic, which was detected at concentrations exceeding the MTCA Method A cleanup level in groundwater samples collected from several monitoring wells in AOC-13.

Subsequent to the completion of remedial actions in AOC-13, Ecology (2011b) provided an opinion letter regarding the actions performed to date based on various documents submitted to Ecology for review. The Ecology opinion letter stated that cleanup standards for AOC-13 had been met for petroleum hydrocarbon constituents, chromium, lead, arsenic, cadmium, and PAHs in soil, but that further action was required to clean up petroleum hydrocarbon constituents, lead, and arsenic in groundwater.

Groundwater monitoring wells DOF-1 through DOF-5 on AOC-13 were sampled six times between November 2009 and August 2014 (DOF 2014c). By the time of the August 2014 groundwater sampling event, dissolved arsenic was the only COC detected at concentrations exceeding MTCA Method A cleanup levels in groundwater samples collected from the monitoring wells.

Ecology (2015b) terminated the AOC-13 VCP agreement in 2015 due to a lack of activity.

Farallon sampled groundwater monitoring wells DOF-1 through DOF-4 during the 2016 Phase II ESA to confirm the August 2014 groundwater monitoring data (DOF 2014c), and to assess current groundwater conditions. COCs either were detected at concentrations less than MTCA Method A and B cleanup levels or were not detected at concentrations exceeding laboratory reporting limits

in groundwater samples collected from the monitoring wells. Two exceptions were noted for samples collected from monitoring well DOF-2: ORO and dissolved arsenic were detected at concentrations slightly exceeding MTCA Method A cleanup levels.

The dissolved-arsenic exceedance in groundwater at AOC-13, along with that observed at other locations on the Property, appears to coincide with areas of residual petroleum impact, and may be related to changes in geochemistry associated with the presence of petroleum constituents, which can increase the mobility of naturally occurring arsenic. Dissolved-arsenic concentrations detected in groundwater in down-gradient portions of the Property have shown significant decreases from historical high concentrations, suggesting that dissolved-arsenic concentrations in groundwater will decrease to less than the MTCA Method A cleanup level as residual petroleum constituents in groundwater are cleaned up or naturally degrade over time.

3.2 SUMMARY OF OUTSTANDING AREAS OF CONCERN

As discussed in Section 3.1, Previous Environmental Investigations and Cleanup Actions, Farallon identified several AOCs that will require remediation during Property redevelopment. The AOCs requiring remediation or mitigation in conjunction with Property redevelopment are summarized below.

- **AOC-2: Perishables Warehouse.** Additional soil source removal is needed to clean up residual DRO proximate to former UST F-UST-D to meet the MTCA Method A cleanup level. Natural attenuation processes are expected to remedy limited groundwater impacts following soil source removal. Dissolved arsenic was detected at concentrations exceeding the MTCA Method A cleanup level in reconnaissance groundwater samples and groundwater samples collected from monitoring well MW-101 in AOC-2.
- **AOC-4: Current Fueling Area.** DRO and ORO remain at concentrations exceeding MTCA Method A cleanup levels in groundwater proximate to and down-gradient of the current and former fueling USTs and dispenser island. Although petroleum impact was identified only in groundwater, petroleum impact to soil likely is present in this area. Additional soil removal will be evaluated in conjunction with decommissioning of the USTs during redevelopment of the Property. Natural attenuation processes are expected to be effective in cleaning up groundwater following source soil removal.
- **AOC-5: Former Trailer Maintenance Shop.** A release of petroleum hydrocarbon constituents in the storage yard proximate to the western side of the shop building has locally affected arsenic concentrations in groundwater. Dissolved arsenic was detected at concentrations exceeding the MTCA Method A cleanup level in a reconnaissance groundwater sample collected from boring F-14 in the southern portion of AOC-5.
- **AOC-6: Former Truck Repair Shop.** Additional soil cleanup is required proximate to the southeastern corner of the north-adjacent Office Building to remove residual GRO and benzene in soil following the 2007 remedial excavation in AOC-6. The sources of residual GRO and benzene are related to releases from former USTs F-UST-H and F-UST-I. The soil will be accessible for removal following demolition of the Office Building during

redevelopment of the Property. The soil source removal is expected to facilitate natural attenuation processes in groundwater to reduce DRO, GRO, and benzene detected at concentrations exceeding MTCA Method A cleanup levels in a reconnaissance groundwater sample collected a short distance down-gradient of the area of residual GRO and benzene soil contamination. Dissolved arsenic was detected at concentrations exceeding the MTCA Method A cleanup level in one reconnaissance groundwater sample, and in groundwater samples collected from three monitoring wells in AOC-6.

- **AOC-11: South Maintenance Shop.** DRO was detected at a concentration slightly exceeding the MTCA Method A cleanup level in a groundwater sample collected in the storage yard area of the South Maintenance Shop. Additional groundwater characterization will be conducted in conjunction with redevelopment of the Property.
- **AOC-13: Northwest Auto Wrecking Property.** Dissolved arsenic was detected at concentrations exceeding the MTCA Method A cleanup level in groundwater samples collected from groundwater monitoring well DOF-2 on AOC-13.

The estimated extent of COCs at concentrations exceeding MTCA cleanup levels detected in soil and groundwater in AOC-2, AOC-4, AOC-6, and AOC-11 are shown on Figures 4 through 7. The extent of dissolved arsenic detected at concentrations exceeding the MTCA Method A cleanup level in reconnaissance groundwater samples and samples collected from groundwater monitoring wells at AOC-2, AOC-5, AOC-6, and AOC-13 has not been defined, but appears to coincide with areas of residual petroleum impact. The occurrence of dissolved arsenic in groundwater on the Property likely is related to geochemical transformations in local groundwater caused by low concentrations of residual petroleum hydrocarbon constituents that increase the solubility and mobility of naturally occurring arsenic in soil. The results from long-term groundwater monitoring suggest that arsenic concentrations will continue to decrease as the concentrations of petroleum hydrocarbons in soil are reduced either through cleanup action or natural degradation processes.

The results from the remedial investigation have sufficiently delineated the nature and extent of COCs in soil and groundwater to allow evaluation and selection of cleanup actions for the AOCs under a feasibility study.

4.0 CONCEPTUAL SITE MODEL

This section provides a summary of the conceptual site model derived for the Site using the results from the remedial investigation conducted at the Property. Included in this section is a discussion of the ARARs; COCs; media of concern; selected cleanup standards, including cleanup levels and points of compliance; contaminant fate and transport; and the Terrestrial Ecological Evaluation (TEE) for the Property. The conceptual site model is used as a basis for developing technically feasible cleanup alternatives and selecting a final cleanup action in accordance with MTCA regulations.

4.1 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Cleanup of contaminated soil and groundwater at the Site will be conducted in accordance with MTCA, with the technical assistance of Ecology under the VCP, and in conjunction with redevelopment construction on the Property. Primary ARARs relating to the cleanup action include:

- MTCA, Chapter 70.105D of the Revised Code of Washington (RCW 70.105);
- MTCA Cleanup Regulations, WAC 173-340;
- Dangerous Waste Regulations, WAC 173-303; and
- Guidance for Remediation of Petroleum Contaminated Soils (Ecology 2011c).

These primary ARARs are anticipated to be the most applicable to the cleanup action because they provide the framework for the cleanup action, including applicable and relevant regulatory guidelines, cleanup standards, waste disposal criteria, references for additional ARARs, and standards for documentation of the cleanup action.

Other applicable ARARs and guidance documents for cleanup of the Site may include:

- Guidance for Site Checks and Site Assessments for Underground Storage Tanks (Ecology 1991, revised 2003);
- Minimum Standards for Construction and Maintenance of Wells, Standards for Decommissioning a Well, WAC 173-160-381;
- Occupational Safety and Health Act, Part 1910 of Title 29 of the Code of Federal Regulations;
- Safety Standards for Construction Work, WAC 296-155;
- Washington State Solid Waste Management Laws and Regulations, RCW 70.95, and WAC 173-351 and 173-304;

- Draft Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action (Ecology 2009c); and
- Accreditation of Environmental Laboratories, WAC 173-50.

4.2 CONSTITUENTS OF CONCERN

The COCs for the Site are the compounds that have been detected at concentrations that exceed or may exceed MTCA Method A cleanup levels in soil and groundwater samples collected at the Site.

The COCs for soil are:

- DRO;
- GRO;
- Benzene; and
- Naphthalenes.

The COCs for groundwater are:

- DRO;
- ORO;
- GRO;
- Benzene; and
- Arsenic.

4.3 MEDIA OF CONCERN

Soil and groundwater were confirmed as the affected media of concern at the Site based on results from the RI. DRO, GRO, benzene, and naphthalenes were detected in soil, and DRO, ORO, GRO, benzene, and arsenic were detected in groundwater at concentrations exceeding MTCA Method A cleanup levels.

Soil vapor was identified as a suspected medium of concern at AOC-6 based on historical concentrations of GRO and benzene in soil and groundwater, and the potential for vapor intrusion into buildings following Property redevelopment. The potential for vapor intrusion at the Site will be mitigated by the excavation and removal of contaminated soil, and by the dewatering and disposal of contaminated groundwater from the Site. Where soil excavation may not be practicable, in-situ oxidation will be implemented to degrade residual COCs and mitigate the potential for vapor intrusion.

Concentrations of benzene and other VOCs detected in groundwater samples collected from monitoring wells and in reconnaissance groundwater samples collected from borings at the Site

did not exceed the updated 2015 groundwater screening levels protective of indoor air, as originally promulgated in the Draft *Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remediation* Action dated October 2009, prepared by Ecology (2009c), with only one exception. Vapor intrusion considerations are discussed further in Section 5.2, Recommended Cleanup Alternative.

4.4 CLEANUP STANDARDS

As defined in WAC 173-340-700, cleanup standards consist of cleanup levels and the points of compliance at which the cleanup levels are to be attained. The cleanup standards for the Site have been established in accordance with WAC 173-340-700 through 173-340-760 to be protective of human health and the environment.

4.4.1 Soil Cleanup Levels

The selected cleanup levels for COCs in soil are the MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses (Table 740-1 in WAC 173-340-900), as follows:

- DRO: 2,000 milligrams per kilogram (mg/kg);
- GRO: 30 mg/kg;
- Benzene: 0.03 mg/kg; and
- Total naphthalenes: 5 mg/kg.

4.4.2 Groundwater Cleanup Levels

The selected cleanup levels for COCs in groundwater are the MTCA Method A Cleanup Levels for Ground Water (Table 720-1 in WAC 173-340-900), as follows:

- GRO: 800 micrograms per liter (µg/l) (due to the presence of benzene);
- DRO: 500 µg/l;
- ORO: 500 µg/l;
- Benzene: 5 µg/l; and
- Arsenic: 5 µg/l.

4.4.3 Points of Compliance

Points of compliance are the locations at which cleanup levels for the COCs must be attained to meet the requirements of MTCA. The points of compliance for the Site are as follows:

- In accordance with WAC 173-340-740(6), the point of compliance for soil is defined as all soil at the Site where COCs have been detected at concentrations exceeding MTCA soil cleanup levels.

- In accordance with WAC 173-340-720(8), the point of compliance for groundwater is defined as the uppermost level of the saturated zone extending vertically to the lowest depth at the Site that potentially could be impacted by COCs.

4.5 CONTAMINANT FATE AND TRANSPORT

Two types of exposure risk associated with the presence of COCs in groundwater at the Site are related to human and terrestrial ecological receptors.

4.5.1 Human Health Risk

Potential human exposure pathways for groundwater include the direct contact pathway, which comprises both the dermal contact and ingestion pathways. There are no groundwater-supply wells used for potable water supply in the immediate vicinity of the Site. One or more COCs have been detected at concentrations exceeding MTCA Method A cleanup levels in groundwater samples collected from monitoring wells or reconnaissance groundwater samples collected from borings in the AOCs. Human exposure pathways for soil include direct contact and soil leaching to groundwater, with subsequent human exposure. The direct contact pathway considers both dermal contact with and ingestion of soil. Sources of COCs in soil are assumed to be present in AOC-2, AOC-4, and AOC-6.

Direct contact with groundwater or soil would occur only during cleanup actions, such as remedial excavation and dewatering activities, or during redevelopment construction that would include various excavations for subsurface utility line installations, building foundation support, and similar undertakings. Affected AOCs currently are covered with impermeable surfaces, including buildings and asphaltic and concrete paving, limiting the potential for soil leaching to groundwater.

Vapor intrusion risk is not associated with residual volatile petroleum compounds at the Site.

4.5.2 Terrestrial Ecological Evaluation

A TEE is required by WAC 173-340-7490 where a release of hazardous substances to soil has occurred. The regulation requires that one of the following actions be taken:

- Documenting a TEE exclusion using the criteria presented in WAC 173-340-7491;
- Conducting a simplified TEE in accordance with WAC 173-340-7492; or
- Conducting a site-specific TEE in accordance with WAC 173-340-7493.

According to the criteria presented under WAC 173-340-7491(1), the Site does not qualify for one of the primary exclusions from a TEE. However, the Site does qualify for use of a simplified TEE based on the relationship between potential terrestrial ecological receptors and the existing ecological conditions at the Site and immediately adjacent properties. Consistent with the simplified TEE screening criteria, no further evaluation is required for the Site based on the exposure analysis consideration that planned land use makes wildlife exposure unlikely per WAC 173-340-7492(2)(a), and the pathway analysis consideration that no potential exposure pathways

from soil contamination to ecological receptors exist consistent with WAC 173-340-7492(2)(b). Documentation for the TEE simplified evaluation is provided in Appendix C.

5.0 FOCUSED FEASIBILITY STUDY

The purpose of a feasibility study is to develop and evaluate cleanup action alternatives to facilitate selection of a final cleanup action for a property in accordance with WAC 173-340-350(8). A feasibility study typically includes an extensive development, screening, and evaluation process for numerous remedial alternatives. However, because of Site-specific conditions and plans for Property redevelopment, the current evaluation focused on selected cleanup actions capable of achieving the remediation goals based on consideration of applicable MTCA criteria, Site-specific conditions, and Farallon's professional experience. Therefore, the scope of the feasibility study for the Site was narrowed to an FFS.

This RI and FFS provide sufficient information to enable Ecology and the Property owner to agree on the selection of a final cleanup action specific to the Site. Implementation of the final cleanup action will be documented in the Environmental Media Management Plan to be prepared for the Site, which will be submitted to Ecology for review. The cleanup action will be performed under the VCP, and implemented during Property redevelopment with the goal of obtaining an NFA determination for the Site.

As part of the FFS, Farallon evaluated remediation technologies for the Site with respect to the cleanup requirements set forth in MTCA. The FFS considered the requirements under WAC 173-340-350, Site-specific conditions, and the criteria defined in WAC 173-340-360 for screening potentially feasible remedial alternatives for the Site. A cleanup action must satisfy the following threshold criteria, as specified in WAC 173-340-360(2):

- Protect human health and the environment;
- Comply with cleanup standards;
- Comply with applicable state and federal laws; and
- Provide for compliance monitoring.

These criteria represent the minimum standards for an acceptable cleanup action. In addition to meeting the threshold criteria, cleanup actions under MTCA must:

- Use permanent solutions to the maximum extent practicable; and
- Provide for a reasonable restoration time frame.

Farallon performed a preliminary screening of potential remediation technologies typically applied to sites contaminated with the same or comparable COCs to eliminate technologies that did not meet the minimum requirements for protectiveness, permanence, implementability, and cost. Farallon eliminated a number of remediation technologies during the initial screening process, as set forth in MTCA under WAC 173-340-350(8)(b). Eliminated technologies included but were not limited to: soil flushing and extraction; air sparge and soil vapor extraction; and groundwater pumping and treatment.

5.1 POTENTIAL CLEANUP ALTERNATIVES

Preliminary screening of potential remediation technologies identified the following cleanup alternatives as potentially applicable to the cleanup levels for the Site:

- No remedial action;
- Active in-situ remediation of petroleum hydrocarbon constituents in soil and/or groundwater using a chemical oxidant or bioremediation, and active ex-situ removal of arsenic from groundwater by extraction and treatment; and
- Source removal by excavation of soil and dewatering of groundwater containing concentrations of COCs exceeding MTCA cleanup levels, and natural attenuation of residual COCs that are expected to degrade rapidly following source removal.

Farallon evaluated technologies and alternatives that could be implemented in conjunction with the planned redevelopment of the Property, which includes construction of several large commercial/warehouse buildings. Farallon concluded the following:

- "No remedial action" is not an applicable remedial alternative because COCs are present in soil and groundwater at the Site at concentrations exceeding established MTCA Method A cleanup levels.
- In-situ remediation of soil using biological treatment and ex-situ treatment of arsenic in groundwater was not technically feasible because of the planned redevelopment and the expedited time frame desired for the cleanup. In addition, in-situ biological treatment of soil COCs and ex-situ treatment of arsenic in groundwater would not result in compliance with cleanup standards within a reasonable restoration time frame.

Source removal by excavation of soil and dewatering of groundwater satisfies the threshold requirements for a cleanup action, is a permanent solution, and will achieve the cleanup levels at the points of compliance for soil and groundwater COCs. Source removal would be conducted at AOC-2, AOC-4, AOC-6, and AOC-11, followed by groundwater monitoring. Groundwater monitoring also would be conducted at AOC-5 and AOC-13.

Excavation of soil may be regarded as impracticable in some AOCs due to factors such as excessive excavation depth required to remove the COCs and/or where dewatering requirements may not be feasible. In such circumstances, in-situ chemical oxidation will be implemented to reduce COC concentrations in soil and groundwater to less than MTCA Method A cleanup levels. In-situ chemical oxidation also may be beneficial where soil with COC concentrations less than MTCA Method A cleanup levels is regarded as a source of COCs to groundwater.

A description of the source removal alternative for the cleanup action is provided below.

5.2 RECOMMENDED CLEANUP ALTERNATIVE

Source removal by excavation of soil and dewatering of groundwater, in conjunction with in-situ chemical oxidation, is considered the most-practicable alternative for cleanup of the Site. Therefore, the cleanup action will consist of:

- Refining the extent of soil with COCs exceeding MTCA Method A cleanup levels proximate to the sources identified at AOC-2, AOC-4, AOC-6, and AOC-11;
- Decommissioning USTs and associated piping and fuel dispensers from AOC-4;
- Excavating and removing source soil, as practicable, with COCs exceeding MTCA Method A cleanup levels from AOC-2, AOC-4, AOC-6, and AOC-11;
- Capturing contaminated groundwater generated during excavation dewatering activities for treatment and discharge in accordance with local and state standards;
- Collecting performance soil samples and analysis using a mobile laboratory during the excavations, and collecting and analyzing confirmation soil samples to represent soil conditions at the final limits of the excavations;
- Transporting contaminated soil to an Ecology-approved and permitted facility for treatment and/or disposal;
- Applying an oxygen-release compound at the base of the excavations to enhance aerobic biodegradation of petroleum hydrocarbon COCs in the groundwater plume down-gradient of the former source areas;
- Injecting a chemical oxidant into soil with COCs exceeding MTCA Method A cleanup levels in areas where soil excavation and removal may be considered impracticable; and
- Conducting compliance groundwater monitoring following completion of redevelopment construction to monitor natural attenuation processes.

This alternative satisfies the threshold requirements for a cleanup action under WAC 173-340-360(2), is a permanent solution, and will achieve the cleanup levels at the points of compliance for the COCs. Excavation and in-situ chemical oxidation will protect human health and the environment by permanently reducing the volume of hazardous substances in both soil and shallow groundwater at the Site. The restoration time frame is considered reasonable, and the cleanup will be effective in the long-term. Implemented in combination with redevelopment of the Property, the alternative is cost-effective and highly implementable.

Following completion of redevelopment construction at the Property, monitoring wells will be installed down-gradient of the groundwater plumes for compliance groundwater monitoring. Natural attenuation processes, including enhancement using an oxygen-release compound, will degrade the petroleum hydrocarbon COCs in groundwater once the sources have been removed, although petroleum hydrocarbons may persist in groundwater at concentrations exceeding MTCA Method A cleanup levels in the short term following completion of the soil cleanup action at the

Site. Arsenic detected at concentrations exceeding the MTCA Method A cleanup level in groundwater samples collected at the Site has an apparent historical correlation with the presence of residual petroleum hydrocarbons. Therefore, arsenic in groundwater will be monitored to assess potential reductions in arsenic concentrations associated with degradation of petroleum hydrocarbons over time.

With the exception of concentrations of benzene in the reconnaissance groundwater sample collected from boring F-17, located in AOC-6, concentrations of benzene and other volatile COCs detected in groundwater samples at the Site do not exceed the 2015 groundwater screening levels protective of indoor air (Ecology 2009c; 2015 update to Table B-1). Farallon anticipates that the excavation and/or in-situ chemical oxidation planned for AOC-6 will result in complete removal of COCs in soil and groundwater proximate to boring F-17. Based on the groundwater analytical results for the Site and pending further source mitigation actions, vapor intrusion does not represent a concern to future tenants at the Site.

The selected cleanup action is an aggressive and permanent cleanup action for meeting MTCA requirements, and will rapidly remediate COCs at concentrations exceeding MTCA cleanup levels that are present in soil, groundwater, and soil vapor at the Site by excavating and removing or in-situ destruction of the COCs in soil and groundwater.

The following evaluation discusses how the recommended cleanup action meets MTCA threshold and other requirements set forth under WAC 173-340-360(2)(a) and (b):

- **Protection of Human Health and the Environment:** The cleanup action will protect human health and the environment by excavating and disposing of soil with concentrations of COCs exceeding MTCA cleanup levels, by removing the highest concentrations of COCs in groundwater through excavation dewatering, and by implementing in-situ chemical oxidation, as appropriate, to destroy COCs in soil and groundwater. This source removal will allow natural attenuation processes to complete the degradation and reduction of COC concentrations in groundwater to less than MTCA Method A cleanup levels.

- **Compliance with Cleanup Standards:** The cleanup action will comply with cleanup standards by meeting MTCA cleanup levels for COCs in soil and groundwater at the points of compliance. The points of compliance as defined in WAC 173-340-200 will be the locations where cleanup levels established in accordance with WAC 173-340-720 through WAC 173-340-760 will be attained to meet the requirements of MTCA. Once the cleanup levels have been attained at the defined points of compliance, the Site will no longer be considered to be a threat to human health or the environment.

  The point of compliance for soil is defined as all soil at the Site where COCs have been detected at concentrations exceeding MTCA Method A cleanup levels in in-situ soil samples. The point of compliance for groundwater is defined as the uppermost level of the saturated zone extending vertically to the lowest depth at the Site that potentially could be impacted by the COCs.

- **Compliance with Applicable State and Federal Laws:** The recommended cleanup action alternative will comply with the requirements of MTCA and applicable federal laws. The cleanup action will be conducted as an independent cleanup action under the VCP in accordance with MTCA.
- **Provision for Compliance Monitoring:** The cleanup action for soil provides for compliance monitoring during excavation by collection of performance and confirmational soil samples at various depths, and from the bottom and sidewalls at the limits of the excavations. Compliance monitoring following injection of chemical oxidants includes collection of subsurface confirmation soil samples across the treated source areas. The cleanup action for groundwater provides for compliance monitoring after completion of the excavation and in-situ chemical oxidation activities by groundwater sampling at the points of compliance.
- **Permanence:** The cleanup action for soil and groundwater will result in permanent achievement of the cleanup action objective. It is anticipated that soil with concentrations of COCs exceeding MTCA cleanup levels within the excavation limits will be removed from the Site and disposed of at a licensed disposal facility. Excavation dewatering will remove groundwater with the highest concentrations of COCs. In-situ chemical oxidation is anticipated to degrade and destroy COC concentrations to less than MTCA cleanup levels within the treated source areas. Natural attenuation processes are expected to reduce residual COC concentrations to less than MTCA cleanup levels down-gradient of the source areas at the Site.
- **Restoration Time Frame:** The cleanup action will meet threshold requirements and the cleanup action objective in a reasonable restoration time frame. Excavation, removal, and off-Property disposal of soil and/or in-situ chemical oxidation of soil with concentrations of COCs exceeding MTCA cleanup levels will result in immediate achievement of the cleanup action objective for soil. Dewatering during excavation will remove groundwater with the highest concentrations of COCs. Removal of soil containing sources of COCs will allow natural attenuation processes to reduce COC concentrations in groundwater to less than MTCA Method A cleanup levels.
- **Reduction of Toxicity, Mobility, and Volume of Contaminants:** The cleanup action for soil and groundwater will permanently remove concentrations of COCs exceeding MTCA Method A cleanup levels in soil, and will remove and degrade COCs in groundwater at the Site. These results will permanently eliminate or reduce contaminant mass and toxicity.
- **Short-Term Risks:** The cleanup action involves short-term risks associated with the excavation and handling of soil and/or groundwater with concentrations of COCs exceeding MTCA cleanup levels, and with conducting the injection of chemical oxidants. Potential short-term risks to human health from potential vapors, dust emissions, excavation and injection equipment, and truck traffic may be increased during cleanup field activities. Health and safety measures and monitoring programs will be implemented to effectively minimize these short-term risks.

- **Implementability:** The cleanup action will be implemented at the Site in conjunction with Property redevelopment construction. Excavation and transportation of soil with concentrations of COCs and soil treatment using in-situ chemical oxidation are common practices that have proven successful at many other cleanup sites. Dewatering of groundwater during excavation and subsurface construction activities also is a common practice. Soil and associated groundwater with concentrations of COCs exceeding MTCA cleanup levels can be accessed, dewatered, and removed using standard dewatering and excavating equipment, and can be treated by in-situ chemical oxidation using common injection procedures.

6.0 CLEANUP ACTION PLAN

This section presents the approach for implementation of the cleanup action.

6.1 OBJECTIVE OF CLEANUP ACTION

The objective of the cleanup action is to meet Ecology requirements for a written determination issued by Ecology stating that no further remedial action is necessary at the Property. This will be accomplished by permanently remediating COCs at concentrations exceeding MTCA cleanup levels in soil, groundwater, and soil vapor within the limits of the Site. The cleanup action will be protective of human health and the environment, and will result in a permanent cleanup action for the Site.

6.2 ELEMENTS OF CLEANUP ACTION

The cleanup action includes: excavation and/or treatment by chemical oxidation of soil at AOC-2, AOC-4, AOC-6, and AOC-11; dewatering activities associated with the soil excavation; and the following specific tasks:

- Preparing a Site-specific Health and Safety Plan (HASP);
- Collecting pre-construction soil samples to refine the extent of the COC source areas within the AOCs;
- Demolishing the fueling station, including decommissioning by removal of the two 20,000-gallon diesel fuel USTs in accordance with Ecology UST Regulations established in WAC 173-360, and the *Guidance for Site Checks and Site Assessments for Underground Storage Tanks* (Ecology 1991, revised 2003);
- Conducting contingency planning for the decommissioning and removal of unidentified USTs that may be encountered during redevelopment excavation at the Property; and
- Decommissioning of monitoring wells MW-4, MW-101, MW-203, MW-207, MW-AG1, MW-AG2, and DOF-1 through DOF-5 in accordance with WAC 173-160 (Minimum Standards for Construction and Maintenance of Wells).

6.3 SITE PREPARATION

The cleanup action will be conducted in conjunction with demolition and earthwork activities planned for the Property redevelopment. Test pits will be used to collect soil samples in the AOCs containing COCs detected at concentrations exceeding MTCA Method A cleanup levels in soil and groundwater to refine and delineate the extent of remedial soil excavation and/or in-situ chemical oxidation injection.

Other preparation activities to be conducted prior to the start of excavation activities include demolition of the fueling station and decommissioning of the two diesel fuel USTs,

decommissioning of the monitoring wells identified above, installing Site security fencing, and implementing temporary erosion- and traffic-control measures as necessary to meet permit requirements and protect personnel in the work zones.

6.4 EXCAVATION

Prior to the start of excavation in the AOC, the limits of soil with concentrations of one or more COCs exceeding MTCA Method A cleanup levels will be staked in the field. Following the stripping of surface asphalt pavement and concrete, soil containing COCs exceeding MTCA Method A cleanup levels will be removed from the approximate locations shown on Figures 4 through 7, and disposed of as nonhazardous soil at a licensed disposal facility. Additional excavation may take place based on analytical results for soil samples collected prior to the excavations.

The excavation subcontractor will excavate contaminated soil and segregate it from uncontaminated soil under the direction of a Farallon field representative. Soil containing concentrations of one or more COCs exceeding MTCA Method A cleanup levels will be loaded directly into haul trucks, as practicable, for transport off the Site.

Uncontaminated soil will be removed and stockpiled on the Site for re-use as backfill, if suitable for use as structural fill. During excavation, a Farallon field representative will examine uncontaminated soil for evidence of contamination such as visual staining or sheen, petroleum-like odors, or concentrations of measurable organic vapors exceeding measured background levels using a photoionization detector (PID).

Soil with field evidence of COCs will be segregated from observed clean soil, stockpiled separately, and sampled for analysis to assess options for disposal or reuse. The stockpiles of contaminated soil will be placed on plastic sheeting and covered to prevent potential contamination of clean soil. Three soil samples will be collected from contaminated soil stockpiles of up to 100 cubic yards, and five samples will be collected from contaminated soil stockpiles of 101 to 500 cubic yards in accordance with the Ecology (1991) guidance for stockpiled excavated soil. The contaminated soil stockpile samples will be analyzed for the COCs listed in Section 6.6.5, Analytical Methods and Turnaround Times.

6.5 EXCAVATION DEWATERING

The lower limit of the excavations is anticipated to extend below the current water table. Dewatering will be necessary to reach the depth limits of excavation, estimated to be between approximately 8 and 15 feet bgs. Historically, groundwater has been present at depths of between approximately 5 and 12 feet bgs. The dewatering will consist of pumping groundwater from the excavation into aboveground storage tanks. Groundwater samples will be collected from the aboveground storage tanks to assess the concentrations of COCs in groundwater in the excavation, and to determine disposal options for the groundwater.

6.6 SOIL SEGREGATION AND STOCKPILING

The excavation subcontractor will excavate contaminated soil and segregate it from clean soil under the direction of a Farallon field representative to the extent practicable. Soil segregation will be based on soil sample analytical results from the remedial investigation, performance monitoring results, and field-screening results.

Three types of soil are anticipated to be encountered during the excavations:

- Category 1 clean soil, which contains no detectable concentrations of COCs and no other evidence of contamination. Clean soil will be considered for reuse on the Site as structural fill, as appropriate, or will be disposed of off the Site at a facility or location selected by the Property owner or the excavation subcontractor.
- Category 2 petroleum-contaminated soil, which contains petroleum hydrocarbon constituents at concentrations less than MTCA Method A cleanup levels, meets the disposal criteria for the disposal facility for Category 2 petroleum-contaminated soil; and/or exhibits other evidence of contamination such as visual staining, petroleum-like odors, or organic vapors above background levels measurable using a PID. Category 2 petroleum-contaminated soil will be disposed of as nonhazardous waste at a qualifying inert materials landfill and/or a Subtitle D landfill. Alternatively, Category 2 soil may be used on the Site as structural fill at locations above the known seasonal high groundwater level.
- Category 3 petroleum-contaminated soil, which contains one or more COCs at concentrations exceeding MTCA Method A cleanup levels, and/or exceeds the disposal criteria for the project disposal facility for Category 2 petroleum-contaminated soil. Category 3 petroleum-contaminated soil may be treated by thermal desorption at the disposal facility and disposed of as nonhazardous waste , and/or will be transported directly to a Subtitle D landfill.

Where practicable, Category 2 and Category 3 soil will be loaded directly into haul trucks to facilitate the most-efficient handling and transport.

Excavation subcontractor personnel performing the excavation of potentially contaminated soil will be 40-hour health and safety trained as hazardous waste operators in accordance with Part 1910.120 of Title 29 of the Code of Federal Regulations.

6.6.1 Identification of Contaminated Soil

Determination of the extent of contaminated soil at each excavation area will be based on soil sample analytical results from the remedial investigation and from pre-excavation test pits at selected locations to provide supplementary analytical data for refining identification of the extent of COCs in the soil.

Field-screening will be performed during the excavation to further identify and classify the extent of COCs. Field-screening will consist of noting visual or olfactory evidence of contamination such as soil staining, discoloration, and petroleum odors, and use of a PID to screen for the presence of ionizable VOCs. A PID reading exceeding ambient or background concentrations will confirm the presence of VOCs in a sample. Field-screening results will be evaluated to determine whether laboratory analysis of soil samples is needed to further assess for the presence of COCs in the soil.

6.6.2 Performance and Confirmational Soil Sampling

A 20- by 20-foot or comparable-sized sampling grid will be established over each excavation area to guide the excavation process and the collection of performance and confirmational soil samples. As soil is excavated, performance soil samples will be collected from the bottom and outer margins of the sampling grids. At the excavation sidewall limits, grab samples will be collected at a depth corresponding to the historical zone of seasonal groundwater level fluctuation (between approximately 5 and 12 feet bgs) where the highest COC concentrations would be expected. Bottom samples will be collected at the approximate centers of the grids. A licensed and certified mobile laboratory will be set up on the Site to provide rapid turnaround times for sample analysis.

If one or more of the COC concentrations in a soil sample exceed MTCA Method A cleanup levels, the sample will be considered a performance monitoring sample, and excavation will continue in that area, with collection and analysis of additional soil samples as necessary until the sample COC concentrations are reported at less than MTCA Method A cleanup levels. When COC concentrations for a soil sample are less than cleanup levels, the sample will be considered a confirmational sample, and the excavation in that grid will be considered complete. Sample locations will be determined using a global positioning system receiver and/or by measurement relative to surveyed reference markers positioned along the outer boundaries of the excavation areas.

Confirmational sampling will be conducted once performance sampling or field-screening results indicate that contaminated soil has been removed at the limits of excavation, and MTCA cleanup levels likely have been attained. Confirmational monitoring will consist of collecting in-situ soil samples from the bottoms and sidewalls of the excavated areas to verify that COCs in soil at the margins of the excavations are less than MTCA cleanup levels, and that the cleanup objective has been achieved.

6.6.3 Soil Sample Identification

Each performance and confirmational soil sample will be assigned a unique sample number. The sample number will be based on the associated grid number and will include the location within the grid and the depth or elevation of collection. Sample numbers will be written on the sample label and recorded on the Field Report form, the Sample Summary form, and the laboratory Chain of Custody form.

6.6.4 Soil Sample Collection and Handling Procedures

The performance and confirmational soil samples will be collected and handled in accordance with specific procedures, which include the following:

- Collecting discrete grab soil samples directly from the excavation sidewalls and bottom where the excavation is less than 4 feet deep, or from the center of the excavation track hoe bucket if the excavation is greater than 4 feet deep, or under conditions that make sample collection directly from the excavation unsafe or impracticable. Samples will be collected using either stainless steel or plastic sampling tools. Non-disposable sampling tools and equipment will be decontaminated between uses as appropriate, with the exception of the track hoe bucket.
- Logging sampling information in the field notes, including sample depth or elevation, soil description, soil moisture, indications of potential COCs from visual observations, odor indications, and field-screening results using a PID.
- Transferring the collected soil sample into laboratory-supplied sample containers. Soil samples for analysis for VOCs will be collected and prepared in accordance with U.S. Environmental Protection Agency (EPA) Method 5035A sampling protocols. Sample containers will be completely filled to eliminate headspace, and the seals/caps will be firmly secured.
- Labeling the sample container with the date, time sampled, sample identification number, requested analysis, project name, project number, and the sampler's initials.
- Logging the sample on a Chain of Custody form, and placing the soil sample into a chilled cooler for submittal to the mobile laboratory.
- Hand-delivering by Farallon to the mobile analytical laboratory set up adjacent to the excavation areas.
- Discarding disposable sampling tools, supplies, and personal protective equipment as solid waste in an appropriate waste container at the Site.

6.6.5 Analytical Methods and Turnaround Times

Soil samples collected for performance and confirmational monitoring and for waste disposal classification will be analyzed by the mobile laboratory for petroleum hydrocarbons and benzene. Soil samples will be analyzed using one or more of the following analytical methods:

- DRO and ORO by Northwest Method NWTPH-Dx;
- GRO by Northwest Method NWTPH-Gx; and
- Benzene by EPA Method 8021B.

Same-day sample analytical turnaround times will increase cleanup efficiencies and prevent potential excavation delays.

Additional analysis for total naphthalenes by EPA Method 8270D will be conducted for selected confirmational soil samples. This analysis will be performed at a fixed-base laboratory selected for the project.

Groundwater removed from the excavations during dewatering will be sampled to assess COC concentrations for treatment and/or disposal. Groundwater samples will be analyzed by the mobile laboratory using one or more of the following analytical methods:

- DRO and ORO by Northwest Method NWTPH-Dx;
- GRO by Northwest Method NWTPH-Gx; and
- Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8021B.

Farallon will obtain the laboratory analytical results in electronic format. The data will undergo a quality assurance and quality control review at the time of receipt, and will be compiled into the Farallon EQuIS database for data management.

6.6.6 Waste Soil Disposal

Contaminated soil disposal will be tracked using a Waste Inventory form. The analytical results for soil sampling conducted during the remedial investigation and test pit sampling will be used to profile contaminated soil for disposal. Profiling information will be provided to the project disposal facilities to obtain approval for treatment and/or disposal of the Category 2 and Category 3 petroleum-contaminated soil. Documentation of the soil disposal will be maintained in the project file.

6.6.7 Wastewater Disposal

During excavation dewatering at the Site, groundwater will be removed using a temporary drainage sump in each excavation area, and will be pumped into large storage tanks to facilitate solids removal and turbidity reduction. Effluent from the storage tanks will be treated by carbon filtration, if necessary, to reduce COC concentrations to meet the requirements of the temporary discharge authorization that will be obtained from the King County Industrial Waste Program.

6.6.8 Backfill and Site Restoration

Following completion of soil removal at each excavation, the excavation will be backfilled and compacted by the excavation subcontractor to meet the specifications provided by the geotechnical engineer for the redevelopment project. Imported fill material will be certified by the excavation subcontractor as having been provided by a commercial supplier from known and uncontaminated sources.

6.7 CHEMICAL OXIDATION

In-situ chemical oxidation may be used during the cleanup action at the Site in areas where remedial soil excavation and dewatering as described above may not be practicable. Sodium

persulfate ($Na_2S_2O_8$) is a highly chemically active oxidant effective in oxidizing petroleum hydrocarbons and other common organic environmental contaminants. When completely oxidized, the petroleum hydrocarbons are converted into benign end products such as carbon dioxide and water. The oxidant injection formulation will include calcium peroxide, an oxygen release compound, to stimulate aerobic biodegradation of petroleum hydrocarbon COCs in groundwater down-gradient of the injection area.

Prior to implementing the sodium persulfate treatment, several preparatory activities will be completed, including:

- Applying for and obtaining registration with the Ecology Underground Injection Control Program for injection of the sodium persulfate into subsurface soil and groundwater;
- Coordinating with the City of Tukwila Fire Department to provide notification and to obtain a use permit for the sodium persulfate treatment, as necessary; and
- Conducting a subsurface utility line location survey to accurately locate potential utility lines within or proximate to the injection areas.

Oxidant delivery tooling will be advanced into the subsurface using a direct-push drill rig using injection-points spacings with sufficient radii of influence to effectively distribute the sodium persulfate throughout the affected portion of the treatment area.

7.0 DOCUMENTATION REQUIREMENTS

The elements of the cleanup action will be documented to meet the requirements of MTCA for an NFA determination. A document control system will be implemented to manage data during the cleanup action, including the following documents, as appropriate: Field Report forms, maps, field-screening documentation, sampling documentation, Chain of Custody forms, laboratory analytical reports, photographs, and Waste Inventory forms. Transport tickets and disposal manifests for waste soil will be maintained in the Farallon project documentation files. Upon conclusion of the cleanup action, a report will be prepared summarizing the results from the cleanup action.

7.1 FIELD DOCUMENTATION

Field personnel will be required to keep a daily field log on a Field Report form. Field notes will be as descriptive and inclusive as possible, with the objective of being sufficiently detailed to allow an independent party to reconstruct the events of the cleanup action. Language will be objective, factual, and free of inappropriate terminology. At a minimum, field documentation will include the date, project number, project identification and location, weather conditions, sample collection procedures, field equipment used, and an explanation of any activities performed in a manner other than as specified in the CAP. In addition, when other forms are completed or used (e.g., Chain of Custody forms, maps) they will be referenced in and attached to the Field Report form.

Supplementary documentation forms will be used to augment the Field Report form, including Soil Sampling forms, Waste Inventory forms, and any other forms or documentation developed to document the cleanup action.

A Chain of Custody form or comparable form required by the mobile laboratory will be completed by the Farallon field representative at the time of sample collection. Chain-of-custody protocols are designed to create an accurate written record that can be used to trace the possession and handling of samples from the moment of field collection through laboratory analysis and reporting, and will be followed whenever samples are collected, transferred, stored, analyzed, or destroyed.

Samples submitted to the laboratory will be accompanied by a Chain of Custody or comparable form. This form will be checked for accuracy and completeness by the Farallon field representative. The form will be signed and dated by the Farallon representative when relinquishing samples to the laboratory, and by the laboratory technician or sample custodian to denote sample acceptance by the laboratory. The laboratory will assign each sample a unique sequential laboratory identification number that will be stamped or written on the form.

The Chain of Custody or comparable form will include the following information: project name, sample identification number (assigned by the sampler in the field), sample date, time of collection, sample medium, number of containers, type of analysis required (if any), and any notes or instructions for the laboratory. Whenever the samples are transferred from one party to another,

both parties will sign the form and record the date and time of the transfer. In this manner, sample integrity is ensured from collection through analysis.

Sample labels will be filled out and affixed to appropriate containers during preparations for sample collection. Soil samples collected during the soil cleanup action will be uniquely identified, labeled, and documented in the field at the time of collection. Each sample container will have a label identifying the project number and name, the unique sample identification number, preservatives used (if applicable), required analyses, and the date and time at which the sample was collected.

7.2 HEALTH AND SAFETY

A HASP is required for all field activities (WAC 173-340-810). Farallon will prepare a Site-specific HASP for use by Farallon personnel working at the Site. The HASP will comply with the requirements of the Occupational Safety and Health Act of 1970 and the Washington Industrial Safety and Health Act (RCW 49.17). Ecology approval of the HASP is not necessary.

7.3 CLOSURE REPORT

Upon completion of the cleanup action, a Closure Report will be prepared and submitted to Ecology, and a request will be made for a Partial Sufficiency Opinion as an intermediate step toward obtaining an NFA determination. The request for a Partial Sufficiency Opinion assumes that MTCA cleanup levels will have been achieved for soil only and that groundwater will require monitoring of natural attenuation processes to document reduction of concentrations of groundwater COCs to less than MTCA Method A cleanup levels. The Closure Report will include a summary of the activities and results from the cleanup action at the Site, and will provide the technical basis to support the Partial Sufficiency Opinion. The Closure Report will include the following reporting and work elements:

- A summary of the subsurface investigations and cleanup actions conducted at the Site;
- Reconciliation of contaminated soil transported, treated, and/or disposed of off the Site, and contaminated groundwater treated and discharged to the sanitary sewer;
- Figures and summary tables presenting soil and groundwater sample analytical results; and
- Conclusions regarding the effectiveness of the cleanup action, and a request for a Partial Sufficiency Opinion from Ecology.

7.4 POST-CLOSURE REPORTING

Following completion of redevelopment construction, new groundwater monitoring wells will be installed to assess the degradation of residual COCs in groundwater. The duration of monitoring is expected to vary by AOC, and will be based on initial COC concentrations reported for samples collected from the monitoring wells. Annual to semiannual groundwater monitoring will be

conducted at a minimum. Annual reports will be provided to summarize the results from the groundwater monitoring.

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9.0 LIMITATIONS

9.1 GENERAL LIMITATION

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.

For the foregoing reasons, 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.

This report/assessment has been prepared in accordance with the contract for services between Farallon and Prologis, Inc., and currently accepted industry standards. No other warranties, representations, or certifications are made.

9.2 LIMITATION ON RELIANCE BY THIRD PARTIES

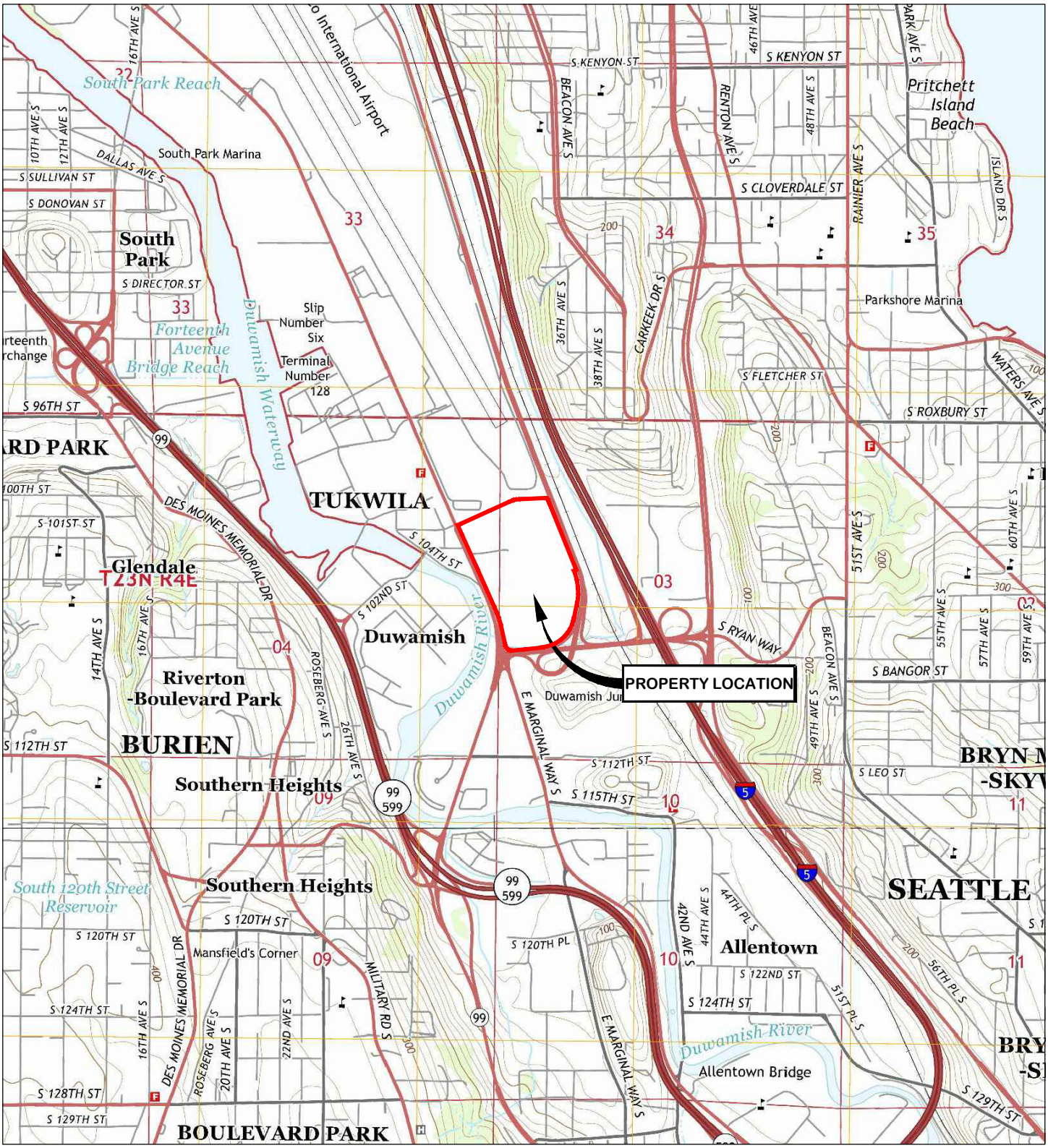
Reliance by third parties is prohibited. This report/assessment has been prepared for the exclusive use of Prologis, Inc. to address the unique needs of Prologis, Inc. at the Site at a specific point in time.

This is not a general grant of reliance. No one other than Prologis, Inc. may rely on this report unless Farallon agrees in advance to such reliance in writing. Any unauthorized use, interpretation, or reliance on this report/assessment is at the sole risk of that party and Farallon will have no liability for such unauthorized use, interpretation, or reliance.

FIGURES

REMEDIAL INVESTIGATION, FOCUSED FEASIBILITY STUDY,
AND CLEANUP ACTION PLAN
3301 South Norfolk Street and 10230 East Marginal Way South
Seattle/Tukwila, Washington

Farallon PN: 1071-026



REFERENCE: 7.5 MINUTE USGS QUADRANGLE SEATTLE SOUTH, WASHINGTON. DATED 2014

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FIGURE 1

PROPERTY VICINITY MAP
3301 SOUTH NORFOLK STREET AND
10100, 10200, AND 10230 EAST MARGINAL WAY SOUTH
SEATTLE/TUKWILA, WASHINGTON

FARALLON PN: 1071-026

Drawn By: JJ | Checked By: DML | Date: 11/1/2017 | Disk Reference: 1071-026

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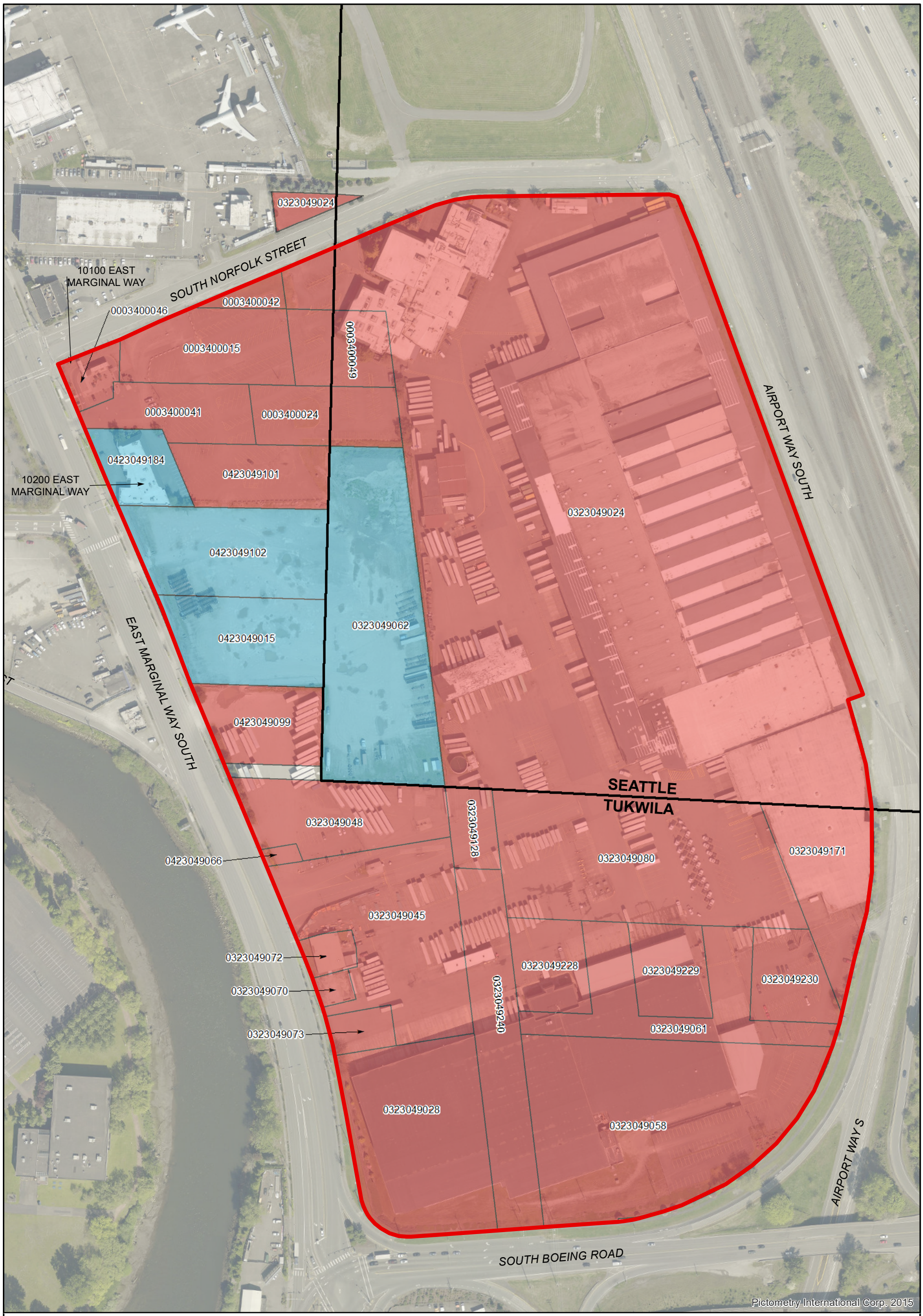

LEGEND

- PROPERTY BOUNDARY
- PARCEL BOUNDARY (WITH PARCEL NUMBER)
- 10230 EAST MARGINAL WAY SOUTH
- 3301 SOUTH NORFOLK STREET

0 200
Feet

N

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FIGURE 2
PROPERTY PLAN SHOWING PARCEL BOUNDARIES AND PARCEL NUMBERS 3301 SOUTH NORFOLK STREET AND 10100, 10200, AND 10230 EAST MARGINAL WAY SOUTH SEATTLE/TUKWILA, WASHINGTON

FARALLON PN: 1071-026

Drawn By: jjones | Checked By: DL | Date: 1/3/2018 | Disc Reference:

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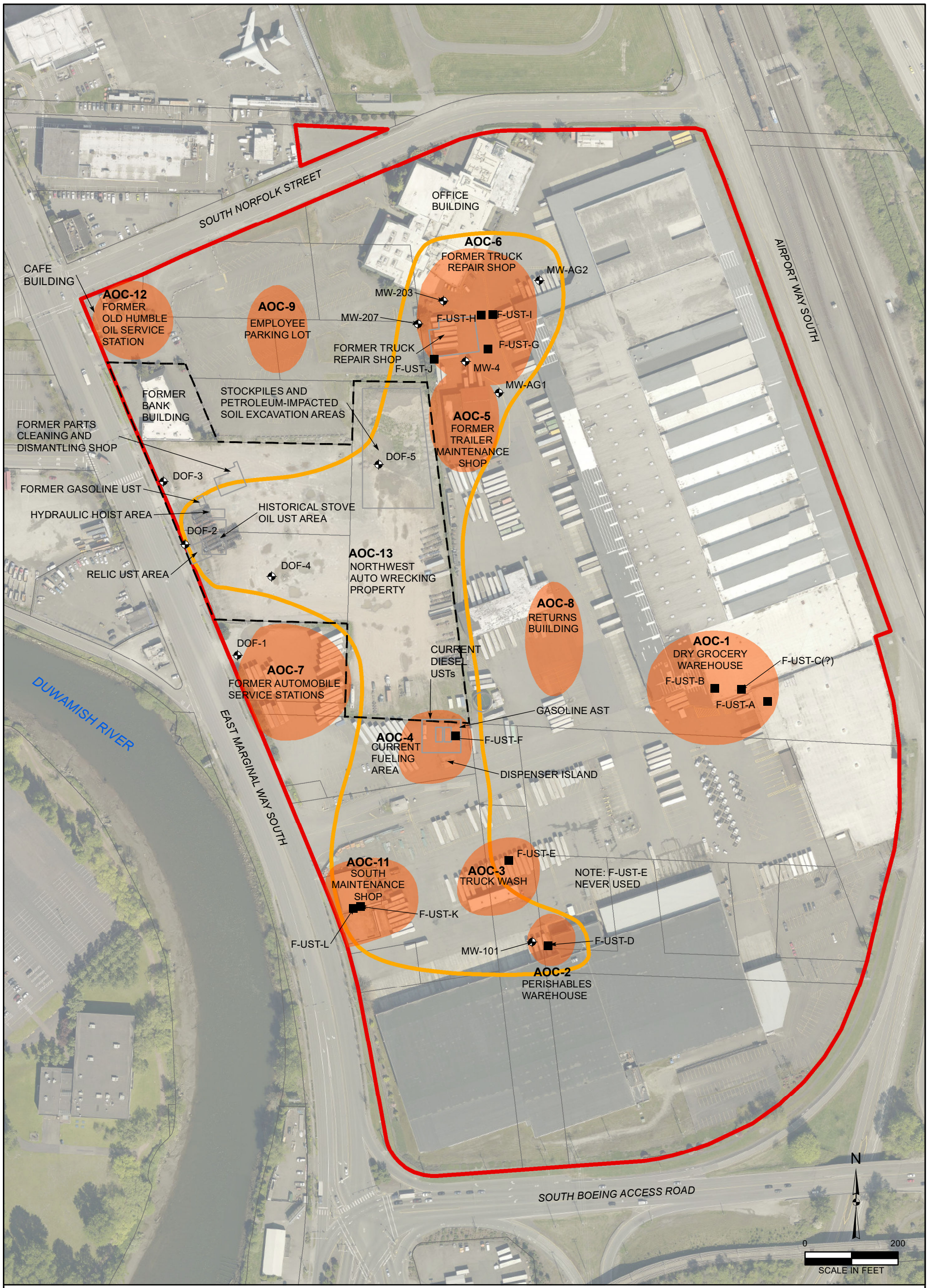

LEGEND

- MONITORING WELL
- FORMER UNDERGROUND STORAGE TANK (UST)
- APPROXIMATE AREA OF CONCERN (AOC)
- AOC-13 BOUNDARY
- PROPERTY BOUNDARY
- APPROXIMATE SITE BOUNDARY

AST = ABOVEGROUND STORAGE TANK

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FIGURE 3

PROPERTY PLAN SHOWING
AOCs AND PROPERTY FEATURES
EMERALD GATEWAY
3301 SOUTH NORFOLK STREET AND
10100, 10200, AND 10230
EAST MARGINAL WAY SOUTH
SEATTLE/TUKWILA, WASHINGTON
FARALLON PN: 1071-026

Drawn By: jjones | Checked By: PK | Date: 1/29/2019 | Disc Reference:

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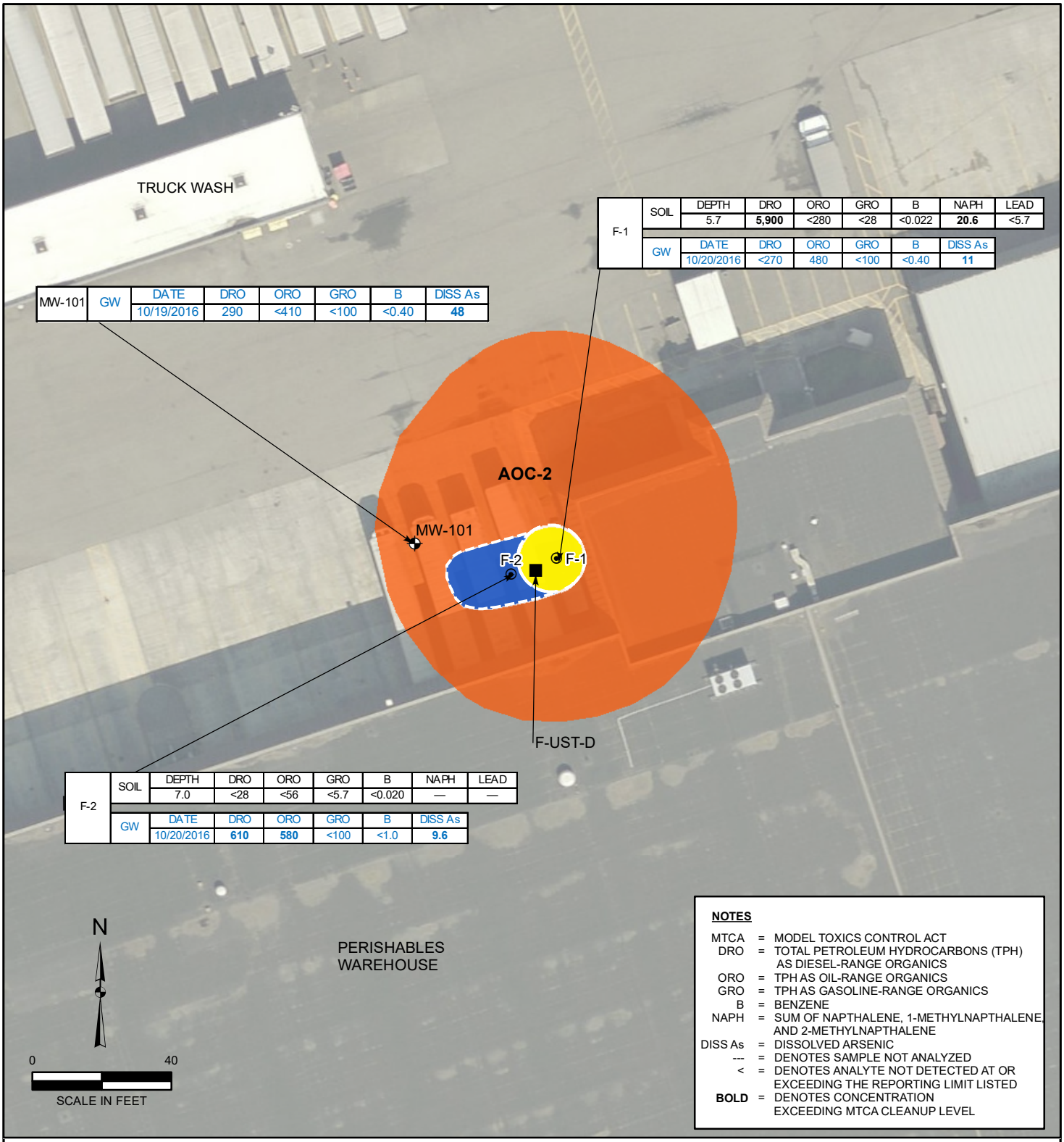

MW-101	GW	DATE	DRO	ORO	GRO	B	DISS As
		10/19/2016	290	<410	<100	<0.40	**48**

F-1	SOIL	DEPTH	DRO	ORO	GRO	B	NAPH	LEAD
		5.7	**5,900**	<280	<28	<0.022	**20.6**	<5.7

F-1	GW	DATE	DRO	ORO	GRO	B	DISS As
		10/20/2016	<270	480	<100	<0.40	**11**

F-2	SOIL	DEPTH	DRO	ORO	GRO	B	NAPH	LEAD
		7.0	<28	<56	<5.7	<0.020	—	—

F-2	GW	DATE	DRO	ORO	GRO	B	DISS As
		10/20/2016	**610**	**580**	<100	<1.0	**9.6**

NOTES

MTCA = MODEL TOXICS CONTROL ACT
DRO = TOTAL PETROLEUM HYDROCARBONS (TPH) AS DIESEL-RANGE ORGANICS
ORO = TPH AS OIL-RANGE ORGANICS
GRO = TPH AS GASOLINE-RANGE ORGANICS
B = BENZENE
NAPH = SUM OF NAPTHALENE, 1-METHYLNAPTHALENE, AND 2-METHYLNAPTHALENE
DISS As = DISSOLVED ARSENIC
--- = DENOTES SAMPLE NOT ANALYZED
< = DENOTES ANALYTE NOT DETECTED AT OR EXCEEDING THE REPORTING LIMIT LISTED
BOLD = DENOTES CONCENTRATION EXCEEDING MTCA CLEANUP LEVEL

LEGEND

- MONITORING WELL (TERRA 2001)
- FORMER UNDERGROUND STORAGE TANK (UST)
- BORING (FARALLON 2016)
- AREA OF CONCERN
- ESTIMATED EXTENT OF PETROLEUM HYDROCARBONS IN GROUNDWATER EXCEEDING MTCA METHOD A CLEANUP LEVELS
- ESTIMATED EXTENT OF PETROLEUM HYDROCARBONS IN SOIL EXCEEDING MTCA METHOD A CLEANUP LEVELS

SAMPLE DEPTH INDICATED IN FEET BELOW GROUND SURFACE
SOIL ANALYTICAL RESULTS IN MILLIGRAMS PER KILOGRAM (mg/kg)
GROUNDWATER (GW) ANALYTICAL RESULTS IN MICROGRAMS PER LITER (µg/l)

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FIGURE 4

DETAIL OF AOC-2
PERISHABLES WAREHOUSE
3301 SOUTH NORFOLK STREET AND
10100, 10200, AND 10230
EAST MARGINAL WAY SOUTH
SEATTLE/TUKWILA, WASHINGTON

FARALLON PN: 1071-026

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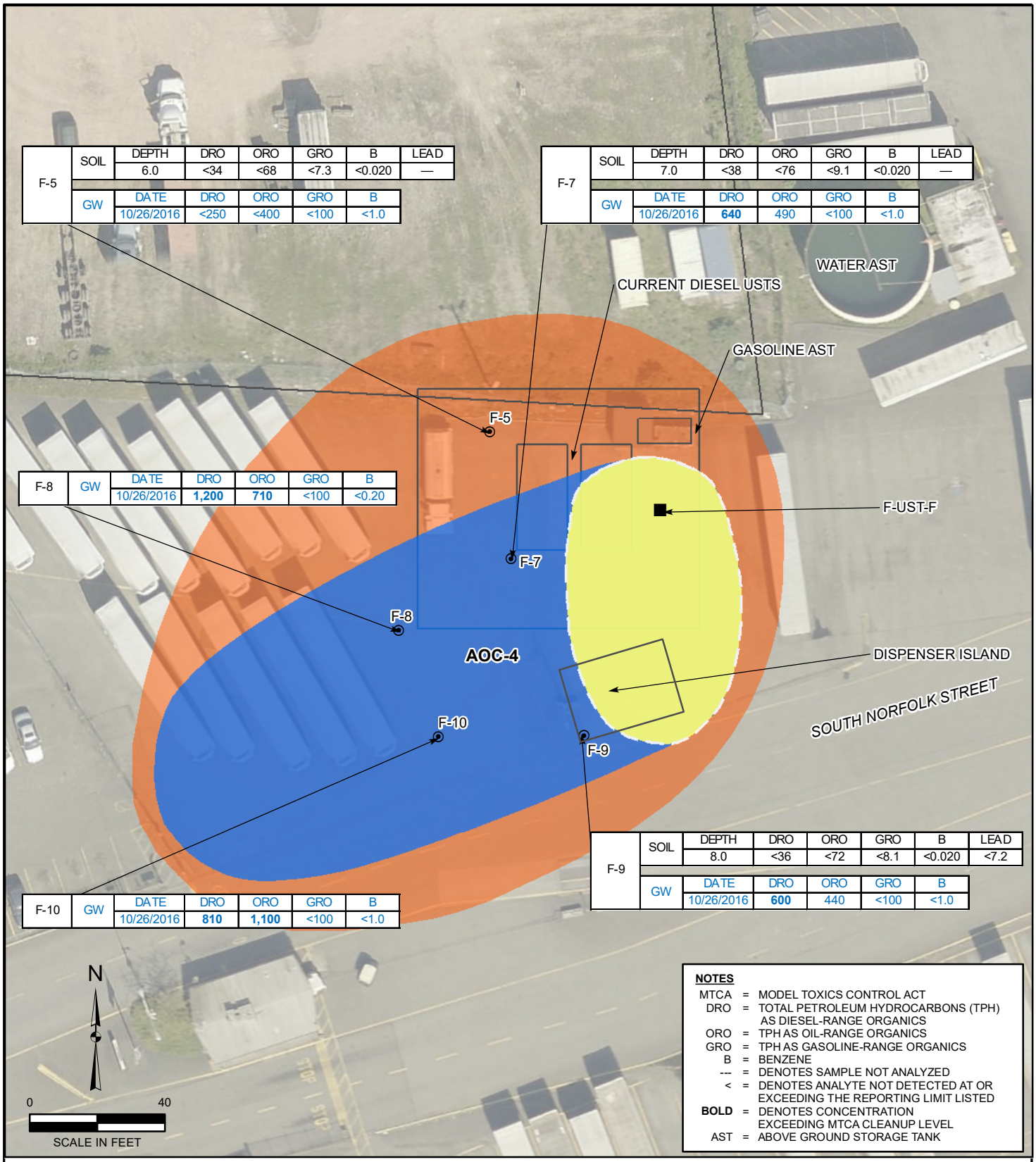

NOTES

MTCA = MODEL TOXICS CONTROL ACT
DRO = TOTAL PETROLEUM HYDROCARBONS (TPH) AS DIESEL-RANGE ORGANICS
ORO = TPH AS OIL-RANGE ORGANICS
GRO = TPH AS GASOLINE-RANGE ORGANICS
B = BENZENE
--- = DENOTES SAMPLE NOT ANALYZED
< = DENOTES ANALYTE NOT DETECTED AT OR EXCEEDING THE REPORTING LIMIT LISTED
BOLD = DENOTES CONCENTRATION EXCEEDING MTCA CLEANUP LEVEL
AST = ABOVE GROUND STORAGE TANK

LEGEND

- BORING (FARALLON 2016)
- FORMER UNDERGROUND STORAGE TANK (UST)
- AREA OF CONCERN
- ESTIMATED EXTENT OF PETROLEUM HYDROCARBONS IN GROUNDWATER EXCEEDING MTCA METHOD A CLEANUP LEVELS
- ESTIMATED EXTENT OF PETROLEUM HYDROCARBONS IN SOIL EXCEEDING MTCA METHOD A CLEANUP LEVELS

SAMPLE DEPTH INDICATED IN FEET BELOW GROUND SURFACE
SOIL ANALYTICAL RESULTS IN MILLIGRAMS PER KILOGRAM (mg/kg)
GROUNDWATER (GW) ANALYTICAL RESULTS IN MICROGRAMS PER LITER (µg/l)

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FIGURE 5

DETAIL OF AOC-4
CURRENT FUELING AREA
3301 SOUTH NORFOLK STREET AND
10100, 10200, AND 10230
EAST MARGINAL WAY SOUTH
SEATTLE/TUKWILA, WASHINGTON
FARALLON PN: 1071-026

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OFFICE BUILDING

F-18	GW	DATE	DRO	ORO	GRO	B	DISS As
		10/17/2016	<260	<420	<100	<1.0	**24**

F-17	GW	DATE	DRO	ORO	GRO	B	DISS As
		10/17/2016	**850**	<420	**1,300**	**90**	3.2

F-16	GW	DATE	DRO	ORO	GRO	B	DISS As
		10/17/2016	<260	<410	<100	<1.0	<3.0

MW-203	GW	DATE	DRO	ORO	GRO	B	DISS As
		10/21/2016	<260	<410	<100	<0.20	<3.0

MW-207	GW	DATE	DRO	ORO	GRO	B	DISS As
		10/21/2016	<260	<410	<100	<0.20	**27**

MW-AG2	GW	DATE	DRO	ORO	GRO	B	DISS As
		10/19/2016	<250	<410	<100	<0.20	**5.8**

MW-4	GW	DATE	DRO	ORO	GRO	B	DISS As
		10/21/2016	<260	<410	<400	<0.20	**38**

MW-AG1	GW	DATE	DRO	ORO	GRO	B	DISS As
		10/21/2016	<260	<420	<400	<0.20	4.8

F-11	GW	DATE	DRO	ORO	GRO	B	DISS As
		10/18/2016	<260	<420	<100	<0.20	3.1

F-12	GW	DATE	DRO	ORO	GRO	B	DISS As
		10/17/2016	<260	<410	<100	<0.20	<3.0

F-13	GW	DATE	DRO	ORO	GRO	B	DISS As
		10/18/2016	—	—	<100	<0.20	—

F-14	GW	DATE	DRO	ORO	GRO	B	DISS As
		10/18/2016	<270	<430	<100	<0.40	**9.9**

F-18
F-17
F-16
MW-203
MW-AG2
F-15
MW-207
AOC-6
F-UST-H
F-UST-I
2007 REMEDIAL INVESTIGATION
FORMER TRUCK REPAIR SHOP BUILDING
F-UST-G
F-UST-J
MW-4
F-11
MW-AG1
AOC-5
FORMER TRAILER MAINTENANCE SHOPBUILDING AND FACILITIES
F-12
F-13
F-14
DOF-5

N

0 50

SCALE IN FEET

NOTES

MTCA = MODEL TOXICS CONTROL ACT
DRO = TOTAL PETROLEUM HYDROCARBONS (TPH) AS DIESEL-RANGE ORGANICS
ORO = TPH AS OIL-RANGE ORGANICS
GRO = TPH AS GASOLINE-RANGE ORGANICS
B = BENZENE
DISS As = DISSOLVED ARSENIC
--- = DENOTES SAMPLE NOT ANALYZED
< = DENOTES ANALYTE NOT DETECTED AT OR EXCEEDING THE REPORTING LIMIT LISTED
BOLD = DENOTES CONCENTRATION EXCEEDING MTCA CLEANUP LEVEL
GROUNDWATER (GW) ANALYTICAL RESULTS IN MICROGRAMS PER LITER (µg/l)

LEGEND

- BORING (FARALLON 2016)
- MONITORING WELL (TERRA 2001)
- FORMER UNDERGROUND STORAGE TANK (UST)
- EXCAVATION BOUNDARY (DALTON 2007)
- AREA OF CONCERN
- ESTIMATED EXTENT OF PETROLEUM HYDROCARBONS IN GROUNDWATER EXCEEDING MTCA METHOD A CLEANUP LEVELS
- ESTIMATED EXTENT OF PETROLEUM HYDROCARBONS IN SOIL EXCEEDING MTCA METHOD A CLEANUP LEVELS

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FIGURE 6

DETAIL OF AOC-5 FORMER TRAILER MAINTENANCE SHOP AND AOC-6 FORMER TRUCK REPAIR SHOP
3301 SOUTH NORFOLK STREET AND
10100, 10200, AND 10230 EAST MARGINAL WAY SOUTH
SEATTLE/TUKWILA, WASHINGTON

FARALLON PN: 1071-026

Drawn By: jjones | Checked By: DL | Date: 1/3/2018 | Disc Reference:

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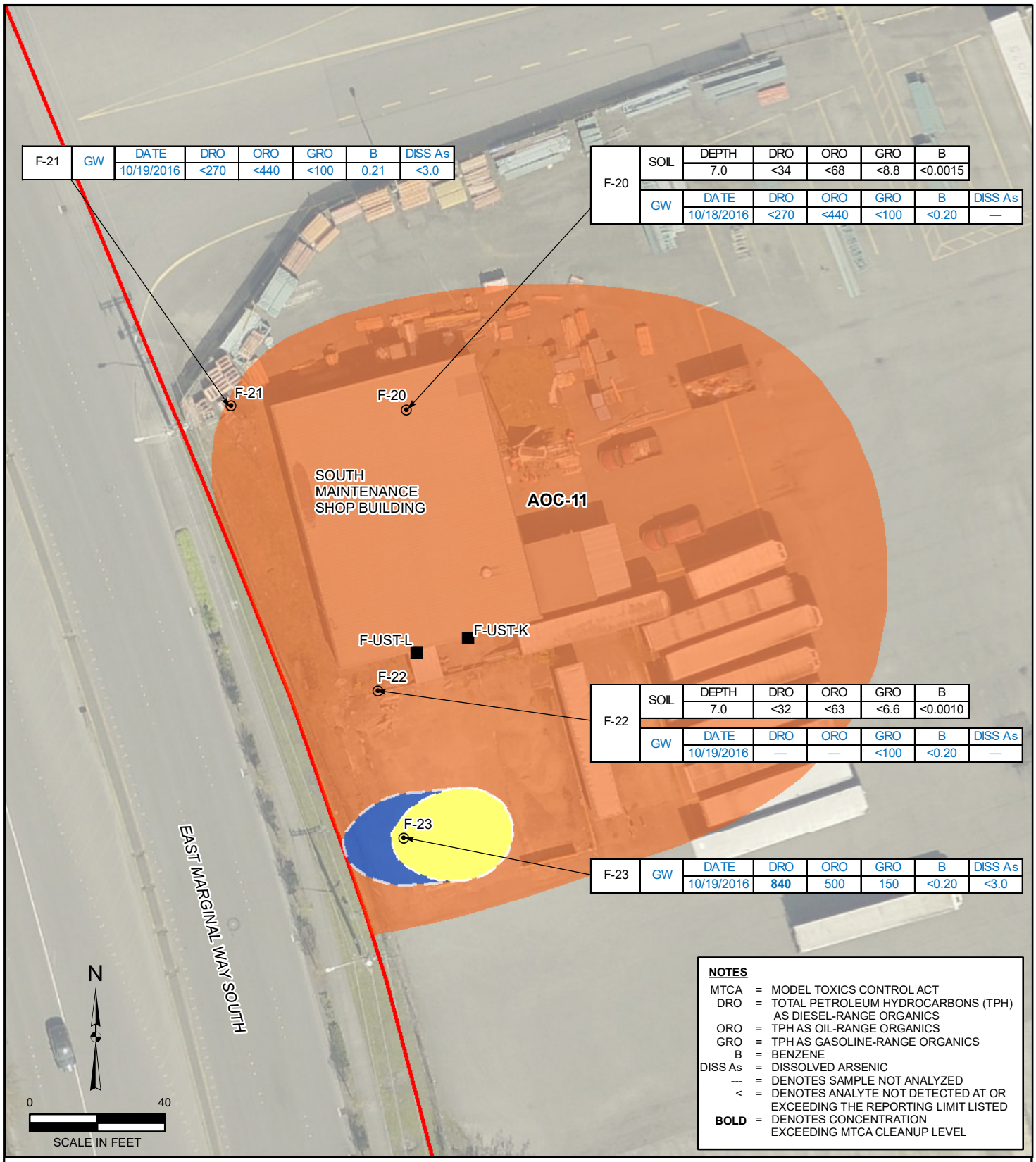

F-21	GW	DATE	DRO	ORO	GRO	B	DISS As
		10/19/2016	<270	<440	<100	0.21	<3.0

F-20	SOIL	DEPTH	DRO	ORO	GRO	B
		7.0	<34	<68	<8.8	<0.0015

	GW	DATE	DRO	ORO	GRO	B	DISS As
		10/18/2016	<270	<440	<100	<0.20	—

F-22	SOIL	DEPTH	DRO	ORO	GRO	B
		7.0	<32	<63	<6.6	<0.0010

	GW	DATE	DRO	ORO	GRO	B	DISS As
		10/19/2016	—	—	<100	<0.20	—

F-23	GW	DATE	DRO	ORO	GRO	B	DISS As
		10/19/2016	**840**	500	150	<0.20	<3.0

NOTES

MTCA	=	MODEL TOXICS CONTROL ACT
DRO	=	TOTAL PETROLEUM HYDROCARBONS (TPH) AS DIESEL-RANGE ORGANICS
ORO	=	TPH AS OIL-RANGE ORGANICS
GRO	=	TPH AS GASOLINE-RANGE ORGANICS
B	=	BENZENE
DISS As	=	DISSOLVED ARSENIC
---	=	DENOTES SAMPLE NOT ANALYZED
<	=	DENOTES ANALYTE NOT DETECTED AT OR EXCEEDING THE REPORTING LIMIT LISTED
BOLD	=	DENOTES CONCENTRATION EXCEEDING MTCA CLEANUP LEVEL

LEGEND

- BORING (FARALLON 2016)
- FORMER UNDERGROUND STORAGE TANK
- AREA OF CONCERN
- ESTIMATED EXTENT OF PETROLEUM HYDROCARBONS IN GROUNDWATER EXCEEDING MTCA METHOD A CLEANUP LEVELS
- ESTIMATED EXTENT OF PETROLEUM HYDROCARBONS IN SOIL EXCEEDING MTCA METHOD A CLEANUP LEVELS
- PROPERTY BOUNDARY

SAMPLE DEPTH INDICATED IN FEET BELOW GROUND SURFACE
SOIL ANALYTICAL RESULTS IN MILLIGRAMS PER KILOGRAM (mg/kg)
GROUNDWATER (GW) ANALYTICAL RESULTS IN MICROGRAMS PER LITER (µg/l)

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FIGURE 7

DETAIL OF AOC-11
SOUTH MAINTENANCE SHOP
3301 SOUTH NORFOLK STREET AND
10100, 10200, AND 10230
EAST MARGINAL WAY SOUTH
SEATTLE/TUKWILA, WASHINGTON

FARALLON PN: 1071-026

Drawn By: jjones | Checked By: DL | Date: 1/3/2018 | Disc Reference:

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TABLES

REMEDIAL INVESTIGATION, FOCUSED FEASIBILITY STUDY,
AND CLEANUP ACTION PLAN
3301 South Norfolk Street and 10230 East Marginal Way South
Seattle/Tukwila, Washington

Farallon PN: 1071-026

Table 1
Summary of Soil Analytical Results for TPH and BTEX
3301 South Norfolk Street and 10230 East Marginal Way South
Seattle/Tukwila, Washington
Farallon PN: 1071-026

Sample Location	Sample Identification	Sample Depth (feet)[1]	Sample Date	Analytical Results (milligrams per kilogram)						
				DRO[2]	ORO[2]	GRO[3]	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Xylenes[4]
F-1	F-1-5.7	5.7	10/20/2016	**5,900**	< 280	< 28	< 0.022	< 0.11	0.16	0.25
F-2	F-2-7.0	7.0	10/20/2016	< 28	< 56	< 5.7	< 0.020	< 0.057	< 0.057	< 0.114
F-5	F-5-6.0	6.0	10/26/2016	< 34	< 68	< 7.3	< 0.020	< 0.073	< 0.073	< 0.146
F-7	F-7-7.0	7.0	10/26/2016	< 38	< 76	< 9.1	< 0.020	< 0.091	< 0.091	< 0.182
F-9	F-9-8.0	8.0	10/26/2016	< 36	< 72	< 8.1	< 0.020	< 0.081	< 0.081	< 0.162
F-11	F-11-8.0	8.0	10/18/2016	< 31	< 63	< 5.8	< 0.0011	< 0.0055	< 0.0011	< 0.0033
F-12	F-12-6.7	6.7	10/17/2016	< 29	< 58	< 7.3	< 0.0016	< 0.0081	< 0.0016	< 0.0049
F-13	F-13-2.5	2.5	10/18/2016	< 26	< 52	< 5.9	< 0.0011	< 0.0055	< 0.0011	< 0.0033
F-14	F-14-6.0	6.0	10/18/2016	< 28	< 56	< 5.4	< 0.00093	< 0.0046	< 0.00093	< 0.0028
F-20	F-20-7.0	7.0	10/18/2016	< 34	< 68	< 8.8	< 0.0015	< 0.0074	< 0.0015	< 0.0045
F-22	F-22-7.0	7.0	10/19/2016	< 32	< 63	< 6.6	< 0.0010	< 0.0050	< 0.0010	< 0.0030
MTCA Method A Cleanup Levels for Soil[5]				**2,000**	**2,000**	**30/100[6]**	**0.03**	**7**	**6**	**9**

NOTES:

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

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

[1]Depth in feet below ground surface.

[2]Analyzed by Northwest Method NWTPH-Dx.

[3]Analyzed by Northwest Method NWTPH-Gx.

[4]Analyzed by U.S. Environmental Protection Agency Method 8021B or 8260C.

[5]Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013.

[6]Cleanup level is 30 milligrams per kilogram if benzene is detected and 100 milligrams per kilogram if benzene is not detected.

BTEX = benzene, toluene, ethylbenzene and xylenes

DRO = total petroleum hydrocarbons (TPH) as diesel-range organics

GRO = TPH as gasoline-range organics

ORO = TPH as oil-range organics

Table 2
Summary of Soil Analytical Results for PAHs
3301 South Norfolk Street and 10230 East Marginal Way South
Seattle/Tukwila, Washington
Farallon PN: 1071-026

Sample Location	Sample Identification	Sample Depth (feet)[1]	Sample Date	Analytical Results (milligrams per kilogram)[2]																	
				Non-Carcinogenic PAHs										Carcinogenic PAHs							
				Naphthalene[3]	1-Methylnaphthalene	2-Methylnaphthalene	Total Naphthalenes[4]	Acenaphthene	Acenaphthylene	Anthracene	Benzo(g,h,i)Perylene	Fluoranthene	Fluorene	Phenanthrene	Pyrene	Benzo(a)pyrene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(j,k)Fluoranthene	Chrysene	Dibenzo(a,h)Anthracene	Indeno(1,2,3-cd)Pyrene	Total cPAHs TEC[5,6]
F-1	F-1-5.7	5.7	10/20/2016	2.0	9.5	9.1	**20.6**	0.50	0.37	0.44	< 0.0076	0.11	3.2	5.4	0.53	< 0.0076	0.0080	< 0.0076	< 0.0076	0.046	< 0.0076	< 0.0076	0.007
F-9	F-9-8.0	8.0	10/26/2016	< 0.0096	< 0.0096	< 0.0096	< 0.0288	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	0.0072
F-11	F-11-8.0	8.0	10/18/2016	< 0.0011	< 0.0084	< 0.0084	< 0.0179	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	0.0063
F-12	F-12-6.7	6.7	10/17/2016	< 0.0081	---	---	< 0.0081	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
F-13	F-13-2.5	2.5	10/18/2016	< 0.0011	---	---	< 0.0011	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
F-14	F-14-6.0	6.0	10/18/2016	< 0.056	---	---	< 0.056	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
F-20	F-20-7.0	7.0	10/18/2016	< 0.0015	< 0.0091	< 0.0091	< 0.0197	< 0.0091	< 0.0091	< 0.0091	< 0.0091	< 0.0091	< 0.0091	< 0.0091	< 0.0091	< 0.0091	< 0.0091	< 0.0091	< 0.0091	< 0.0091	< 0.0091	< 0.0091	0.0069
F-22	F-22-7.0	7.0	10/19/2016	< 0.0010	---	---	< 0.0010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MTCA Method A Cleanup Level for Soil[7]							**5**	**4,800[8]**	**NE**	**24,000[8]**	**NE**	**3,200[8]**	**3,200[8]**	**NE**	**2,400[8]**								**0.1**
MTCA Method B Levels for Soil Protective of Groundwater Vadose at 25 Degrees Celsius[9]				**4.46**	**NE**	**NE**	**NE**	**97.9**	**NE**	**2,270**	**NE**	**631**	**101**	**NE**	**655**								
MTCA Method B Levels for Soil Protective of Groundwater Vadose at 13 Degrees Celsius[9]				**4.45**	**NE**	**NE**	**NE**	**97.9**	**NE**	**NE**	**NE**	**NE**	**101**	**NE**	**655**								

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.
cPAHs = carcinogenic polycyclic aromatic hydrocarbons
NE = not established
PAHs = polycyclic aromatic hydrocarbons
TEC = toxic equivalent concentration

[1]Depth in feet below ground surface.
[2]Analyzed by U.S. Environmental Protection Agency Method 8270D/SIM, unless otherwise noted.
[3]Analyzed by U.S. Environmental Protection Agency Method 8270D/SIM or 8260C.
[4]Sum of naphthalenes, 1-methylnaphthalene, and 2-methylnaphthalene.
[5]Total carcinogenic polycyclic aromatic hydrocarbons derived using the total toxicity equivalency method in Section 708(8) of Chapter 173-340 of the Washington Administrative Code.
[6]For concentrations reported at less than the laboratory reporting limit, half the reporting limit was used to calculate the TEC.
[7]Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013, unless otherwise noted.
[8]Washington State Department of Ecology Cleanup Levels and Risk Calculations (CLARC), under the Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Standard Method B Formula Values for Soil (Unrestricted Land Use) - Direct Contact (Ingestion Only) and Leaching Pathway, https://fortress.wa.gov/ecy/clarc/Reporting/ChemicalQuery.aspx
[9]Washington State Cleanup Levels and Risk Calculations under the Washington State MTCA, Standard Method B Formula Values for Soil from CLARC Master spreadsheet updated September 2015, https://fortress.wa.gov/ecy/clarc/CLARCDataTables.aspx

Table 3
Summary of Soil Analytical Results for Detected VOCs
3301 South Norfolk Street and 10230 East Marginal Way South
Seattle/Tukwila, Washington
Farallon PN: 1071-026

Sample Location	Sample Identification	Sample Depth (feet)[1]	Sample Date	Analytical Results (milligrams per kilogram)[2]			
				2-Butanone (MEK)	Acetone	Carbon Disulfide	PCE
F-11	F-11-8.0	8.0	10/18/2016	< 0.0069	< 0.017	< 0.0011	0.0011
F-12	F-12-6.7	6.7	10/17/2016	0.017	0.050	< 0.0016	< 0.0016
F-13	F-13-2.5	2.5	10/18/2016	< 0.0069	< 0.017	< 0.0011	< 0.0011
F-14	F-14-6.0	6.0	10/18/2016	0.038 Y	0.10 Y	0.0015	< 0.00093
F-20	F-20-7.0	7.0	10/18/2016	0.058 Y	0.13 Y	0.0020	< 0.0015
F-22	F-22-7.0	7.0	10/19/2016	< 0.0050	< 0.0050	< 0.0010	< 0.0010
MTCA Method A Cleanup Levels for Soil[3]				**48,000[4]**	**72,000[4]**	**8,000[4]**	**0.05**
MTCA Method B Levels for Soil Protective of Groundwater Vadose at 25 Degrees Celsius[5]				**NE**	**28.9**	**5.65**	**0.053**
MTCA Method B Levels for Soil Protective of Groundwater Vadose at 13 Degrees Celsius[5]				**NE**	**28.9**	**5.04**	**0.0499**

NOTES:

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

[1]Depth in feet below ground surface.

[2]Analyzed by U.S. Environmental Protection Agency Method 8260C.

[3]Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013, unless otherwise noted.

[4]Washington State Cleanup Levels and Risk Calculations (CLARC) under the Washington State Model Toxics Control Act Cleanup Regulation, Standard Method B Formula Values for Soil (Unrestricted Land Use) - Direct Contact (Ingestion Only) and Leaching Pathway, https://fortress.wa.gov/ecy/clarc/Reporting/ChemicalQuery.aspx

[5]Washington State Cleanup Levels and Risk Calculations under the Washington State MTCA, Standard Method B Formula Values for Soil from CLARC Master spreadsheet updated September 2015, https://fortress.wa.gov/ecy/clarc/CLARCDataTables.aspx

MEK = methyl ethyl ketone
NE = not established
PCE = tetrachloroethene
VOCs = volatile organic compounds
Y = calibration verification for this analyte exceeded the limit and value is an estimate

Table 4
Summary of Soil Analytical Results for Lead
3301 South Norfolk Street and 10230 East Marginal Way South
Seattle/Tukwila, Washington
Farallon PN: 1071-026

Sample Location	Sample Identification	Sample Depth (feet)[1]	Sample Date	Analytical Results (milligrams per kilogram)[2]
				Lead
F-1	F-1-5.7	5.7	10/20/2016	< 5.7
F-9	F-9-8.0	8.0	10/26/2016	< 7.2
MTCA Cleanup Levels for Soil[3]				**20**

NOTES:
< denotes analyte not detected at or exceeding the laboratory reporting limit listed.
[1]Depth in feet below ground surface.
[2]Analyzed by U.S. Environmental Protection Agency Methods 6010C.
[3]Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013.

Table 5
Summary of Groundwater Analytical Results for TPH and BTEX
3301 South Norfolk Street and 10230 East Marginal Way South
Seattle/Tukwila, Washington
Farallon PN: 1071-026

Sample Location	Sample Date	Sample Identification	Analytical Results (micrograms per liter)						
			DRO[1]	ORO[1]	GRO[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Xylenes[3]
Reconnaissance Groundwater Samples									
F-1	10/20/2016	F-1-GW	< 270	480	< 100	< 0.40	< 2.0	< 0.40	< 1.2
F-2	10/20/2016	F-2-GW	**610**	**580**	< 100	< 1.0	< 1.0	< 1.0	< 2.0
F-5	10/26/2016	F-5-GW	< 250	< 400	< 100	< 1.0	< 1.0	< 1.0	< 2.0
F-7	10/26/2016	F-7-GW	**640**	490	< 100	< 1.0	< 1.0	< 1.0	< 2.0
F-8	10/26/2016	F-8-GW	**1,200**	**710**	< 100	< 0.20	< 1.0	< 0.20	0.86
F-9	10/26/2016	F-9-GW	**600**	440	< 100	< 1.0	< 1.0	< 1.0	1.0
F-10	10/26/2016	F-10-GW	**810**	**1,100**	< 100	< 1.0	< 1.0	< 1.0	< 2.0
F-11	10/18/2016	F-11-GW	< 260	< 420	< 100	< 0.20	< 1.0	< 0.20	< 0.60
F-12	10/17/2016	F-12-GW	< 260	< 410	< 100	< 0.20	< 1.0	< 0.20	< 0.60
F-13	10/18/2016	F-13-GW	---	---	< 100	< 0.20	< 1.0	< 0.20	< 0.60
F-14	10/18/2016	F-14-GW	< 270	< 430	< 100	< 0.40	< 2.0	< 0.40	< 1.2
F-16	10/17/2016	F-16-GW	< 260	< 410	< 100	< 1.0	< 1.0	< 1.0	< 2.0
F-17	10/17/2016	F-17-GW	**850** M	< 420	**1,300**	**90**	< 4.0	140	20
F-18	10/17/2016	F-18-GW	< 260	< 420	< 100	< 1.0	< 1.0	< 1.0	< 2.0
F-20	10/18/2016	F-20-GW	< 270	< 440	< 100	< 0.20	< 1.0	< 0.20	< 0.60
F-21	10/19/2016	F-21-GW	< 270	< 440	< 100	0.21	< 1.0	< 0.20	< 0.60
F-22	10/19/2016	F-22-GW	---	---	< 100	< 0.20	< 1.0	< 0.20	< 0.60
F-23	10/19/2016	F-23-GW	**840**	500	150	< 0.20	< 1.0	< 0.20	< 0.60
Monitoring Well Groundwater Samples									
DOF-1	10/19/2016	DOF-1-101916	< 260	< 410	< 100	< 0.20	< 1.0	< 0.20	< 0.60
DOF-2	10/24/2016	DOF-2-102416	380	**560**	180	0.27	< 1.0	0.31	< 0.60
DOF-3	10/21/2016	DOF-3-102116	< 260	< 410	< 100	< 0.20	< 1.0	< 0.20	< 0.60
DOF-4	10/24/2016	DOF-4-102416	< 260	450	< 100	< 0.20	< 1.0	< 0.20	< 0.60
MW-4	10/21/2016	MW-4-102116	< 260	< 410	< 400	< 0.20	< 1.0	< 0.20	< 0.60
MW-101	10/19/2016	MW-101-101916	290	< 410	< 100	< 0.40	< 2.0	< 0.40	< 1.2
MW-203	10/21/2016	MW-203-102116	< 260	< 410	< 100	< 0.20	< 1.0	< 0.20	< 0.60
MW-207	10/21/2016	MW-207-102116	< 260	< 410	< 100	< 0.20	< 1.0	< 0.20	< 0.60
MW-AG1	10/21/2016	MW-AG1-102116	< 260	< 420	< 400	< 0.20	< 1.0	< 0.20	< 0.60
MW-AG2	10/19/2016	MW-AG2-101916	< 250	< 410	< 100	< 0.20	< 1.0	< 0.20	< 0.60
MTCA Method A Cleanup Level for Groundwater[4]			**500**	**500**	**800/1,000[5]**	**5**	**1,000**	**700**	**1,000**

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.
[1]Analyzed by Northwest Method NWTPH-Dx.
[2]Analyzed by Northwest Method NWTPH-Gx.
[3]Analyzed by U.S. Environmental Protection Agency Method 8021B or 8260C.
[4]Washington 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 amended 2013.
[5]Cleanup level is 800 micrograms per liter if benzene is detected and 1,000 micrograms per liter if benzene is not detected.

BTEX = benzene, toluene, ethylbenzene, and xylenes
DRO = total petroleum hydrocarbons (TPH) as diesel-range organics
GRO = TPH as gasoline-range organics
M = hydrocarbons in the gasoline-range are impacting the DRO result
ORO = TPH as oil-range organics

Table 6
Summary of Groundwater Analytical Results for PAHs
3301 South Norfolk Street and 10230 East Marginal Way South
Seattle/Tukwila, Washington
Farallon PN: 1071-026

Sample Location	Sample Date	Sample Identification	Analytical Results (micrograms per liter)[1]																	
			Non-Carcinogenic PAHs											Carcinogenic PAHs							
			Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Naphthalenes[2]	Acenaphthene	Acenaphthylene	Anthracene	Benzo(g,h,i)Perylene	Fluoranthene	Fluorene	Phenanthrene	Pyrene	Benzo(a)pyrene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(j,k)Fluoranthene	Chrysene	Dibenzo(a,h)Anthracene	Indeno(1,2,3-cd)Pyrene	Total cPAHs TEC[3,4]
Reconnaissance Groundwater Samples																					
F-1	10/20/2016	F-1-GW	< 0.19	1.9	1.6	3.5	< 0.19	< 0.19	< 0.19	< 0.019	< 0.19	< 0.19	0.23	< 0.19	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	0.014
F-11	10/18/2016	F-11-GW	< 0.095	< 0.095	< 0.095	< 0.285	< 0.095	< 0.095	< 0.095	< 0.0095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	0.0072
F-12	10/17/2016	F-12-GW	< 0.096	< 0.096	< 0.096	< 0.288	< 0.096	< 0.096	< 0.096	< 0.0096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	0.0072
F-14	10/18/2016	F-14-GW	< 0.095	< 0.095	< 0.095	< 0.285	< 0.095	< 0.095	< 0.095	< 0.0095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	0.0072
F-16	10/17/2016	F-16-GW	< 0.095	< 0.095	< 0.095	< 0.285	< 0.095	< 0.095	< 0.095	0.016	< 0.095	< 0.095	< 0.095	< 0.095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	0.014	0.014	0.009
F-17	10/17/2016	F-17-GW	42	14	23	79	0.20	< 0.096	< 0.096	< 0.0096	< 0.096	0.37	0.38	< 0.096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	0.0072
F-18	10/17/2016	F-18-GW	< 0.095	< 0.095	< 0.095	< 0.285	< 0.095	< 0.095	< 0.095	< 0.0095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	0.0072
F-20	10/18/2016	F-20-GW	< 0.11	< 0.11	< 0.11	< 0.33	< 0.11	< 0.11	< 0.11	< 0.011	< 0.11	< 0.11	< 0.11	< 0.11	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	0.008
F-21	10/19/2016	F-21-GW	< 0.096	< 0.096	< 0.096	< 0.288	< 0.096	< 0.096	< 0.096	< 0.0096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	0.0072
F-23	10/19/2016	F-23-GW	< 0.096	< 0.096	< 0.096	< 0.288	< 0.096	< 0.096	< 0.096	< 0.0096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	0.0072
Monitoring Well Groundwater Samples																					
DOF-1	10/19/2016	DOF-1-101916	< 0.094	< 0.094	< 0.094	< 0.282	< 0.094	< 0.094	< 0.094	< 0.0094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	0.0071
DOF-2	10/24/2016	DOF-2-102416	0.64	1.8	< 0.19	2.4	< 0.19	< 0.19	< 0.19	< 0.019	< 0.19	< 0.19	< 0.19	< 0.19	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	0.014
DOF-3	10/21/2016	DOF-3-102116	< 0.094	< 0.094	< 0.094	< 0.282	< 0.094	< 0.094	< 0.094	< 0.0094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	0.0071
DOF-4	10/24/2016	DOF-4-102416	< 0.095	< 0.095	< 0.095	< 0.285	< 0.095	< 0.095	< 0.095	< 0.0095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	0.0072
MW-4	10/21/2016	MW-4-102116	< 0.19	< 0.19	< 0.19	< 0.57	< 0.19	< 0.19	< 0.19	< 0.019	< 0.19	< 0.19	< 0.19	< 0.19	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	0.014
MW-101	10/19/2016	MW-101-101916	0.10	3.0	0.43	3.5	0.20	< 0.094	< 0.094	< 0.0094	< 0.094	0.16	0.17	< 0.094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	0.0071
MW-203	10/21/2016	MW-203-102116	< 0.095	< 0.095	< 0.095	< 0.285	< 0.095	< 0.095	< 0.095	< 0.0095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	0.0072
MW-207	10/21/2016	MW-207-102116	< 0.095	< 0.095	< 0.095	< 0.285	< 0.095	< 0.095	< 0.095	< 0.0095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	0.0072
MW-AG1	10/21/2016	MW-AG1-102116	< 0.19	< 0.19	< 0.19	< 0.57	< 0.19	< 0.19	< 0.19	< 0.019	< 0.19	< 0.19	< 0.19	< 0.19	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	0.014
MW-AG2	10/19/2016	MW-AG2-101916	< 0.094	< 0.094	< 0.094	< 0.282	< 0.094	< 0.094	< 0.094	< 0.0094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	0.0071
MTCA Method A Cleanup Level for Groundwater[5]						**160**	**960[6]**	**NE**	**4,800[6]**	**NE**	**640[6]**	**640[6]**	**NE**	**480[6]**								**0.1**

NOTES:
< denotes analyte not detected at or exceeding the reporting limit listed.
[1]Analyzed by U.S. Environmental Protection Agency Method 8270D/SIM.
[2]Sum of naphthalenes, 1-methylnaphthalene, and 2-methylnaphthalene.
[3]Total carcinogenic polycyclic aromatic hydrocarbons derived using the total toxicity equivalency method in Section 708(8) of Chapter 173-340 of the Washington Administrative Code.
[4]For concentrations reported at less than the laboratory reporting limit, half the reporting limit was used to calculate the TEC.
[5]Washington State Model Toxics Control Act Cleanup Regulation Method A Cleanup Levels for Groundwater, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013, unless otherwise noted.
[6]Washington 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.

cPAHs = carcinogenic polycyclic aromatic hydrocarbons
NE = not established
PAHs = polycyclic aromatic hydrocarbons
TEC = toxic equivalent concentration

Table 7
Summary of Groundwater Analytical Results for Detected VOCs
3301 South Norfolk Street and 10230 East Marginal Way South
Seattle/Tukwila, Washington
Farallon PN: 1071-026

Sample Location	Sample Date	Sample Identification	Analytical Results (micrograms per liter)[1]													
			1,2,4-Trimethylbenzene	1,2-Dichloropropane	Acetone	Carbon Disulfide	cis-1,2-Dichloroethene	Dichlorodifluoromethane	Isopropylbenzene	Methyl Tertiary Butyl Ether	n-Butylbenzene	n-Propylbenzene	Sec-Butylbenzene	Tert-Butylbenzene	Tetrachloroethene (PCE)	Trichlorofluoromethane
Reconnaissance Groundwater Samples																
F-1	10/20/2016	F-1-GW	< 0.40	< 0.40	< 10	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40
F-8	10/26/2016	F-8-GW	0.24	< 0.20	< 8.0	< 0.20	< 0.20	< 0.28	< 0.20	4.5	< 0.20	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20
F-11	10/18/2016	F-11-GW	< 0.20	< 0.20	< 5.0	0.36	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.22	< 0.20
F-12	10/17/2016	F-12-GW	< 0.20	< 0.20	< 5.0	0.22	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
F-13	10/18/2016	F-13-GW	< 0.20	< 0.20	7.1	0.52	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
F-14	10/18/2016	F-14-GW	< 0.40	< 0.40	< 10	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40
F-20	10/18/2016	F-20-GW	0.25	< 0.20	5.7	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
F-21	10/19/2016	F-21-GW	< 0.20	< 0.20	< 5.0	0.81	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
F-22	10/19/2016	F-22-GW	< 0.20	< 0.20	< 5.0	< 0.20	0.24	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
F-23	10/19/2016	F-23-GW	< 0.20	0.39	< 5.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.40	< 0.20	< 0.20
Monitoring Well Groundwater Samples																
DOF-1	10/19/2016	DOF-1-101916	< 0.20	< 0.20	< 5.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
DOF-2	10/24/2016	DOF-2-102416	0.33	< 0.20	< 7.4	< 0.20	< 0.20	< 0.27	6.1	< 0.20	1.2	1.5	1.7	0.67	< 0.20	0.33
DOF-3	10/21/2016	DOF-3-102116	< 0.20	< 0.20	< 5.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
DOF-4	10/24/2016	DOF-4-102416	< 0.20	< 0.20	< 7.4	< 0.20	< 0.20	< 0.27	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-4	10/21/2016	MW-4-102116	< 0.20	< 0.20	< 5.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-101	10/19/2016	MW-101-101916	< 0.40	< 0.40	< 10	< 0.40	< 0.40	2.7	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40
MW-203	10/21/2016	MW-203-102116	< 0.20	< 0.20	< 5.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-207	10/21/2016	MW-207-102116	< 0.20	< 0.20	< 5.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-AG1	10/21/2016	MW-AG1-102116	< 0.20	< 0.20	< 5.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-AG2	10/19/2016	MW-AG2-101916	< 0.20	< 0.20	< 5.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MTCA Cleanup Levels for Groundwater[2]			**NE**	**1.22**	**7,200**	**800**	**16**	**1,600**	**NE**	**20[3]**	**NE**	**800**	**NE**	**NE**	**5[3]**	**2,400**

NOTES:
< denotes analyte not detected at or exceeding the reporting limit listed.
NE = not established
VOCs = volatile organic compounds.
[1]Analyzed by U.S. Environmental Protection Agency Method 8260C.
[2]Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Cleanup Levels and Risk Calculations, Standard Method B Values for Groundwater, https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx, unless otherwise noted.
[3]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.

Table 8
Summary of Groundwater Analytical Results for Arsenic, Lead, and Total Suspended Solids
3301 South Norfolk Street and 10230 East Marginal Way South
Seattle/Tukwila, Washington
Farallon PN: 1071-026

Sample Location	Sample Date	Sample Identification	Analytical Results (micrograms per liter)[1]		Analytical Results (milligrams per liter)[2]
			Dissolved Arsenic	Dissolved Lead	Total Suspended Solids
Reconnaissance Groundwater Samples					
F-1	10/20/2016	F-1-GW	**11**	**---**	4.0
F-2	10/20/2016	F-2-GW	**9.6**	**---**	33
F-11	10/18/2016	F-11-GW	3.1	---	< 4.0
F-12	10/17/2016	F-12-GW	< 3.0	---	< 4.0
F-14	10/18/2016	F-14-GW	**9.9**	**---**	< 4.0
F-16	10/17/2016	F-16-GW	< 3.0	<1.0	16
F-17	10/17/2016	F-17-GW	3.2	<1.0	< 4.0
F-18	10/17/2016	F-18-GW	**24**	<1.0	< 4.0
F-21	10/19/2016	F-21-GW	< 3.0	---	< 4.0
F-23	10/19/2016	F-23-GW	< 3.0	---	< 4.0
Monitoring Well Groundwater Samples					
DOF-1	10/19/2016	DOF-1-101916	< 3.0	<1.0	< 4.0
DOF-2	10/24/2016	DOF-2-102416	**6.1**	<1.0	< 4.0
DOF-3	10/21/2016	DOF-3-102116	< 3.0	<1.0	< 4.0
DOF-4	10/24/2016	DOF-4-102416	< 3.0	<1.0	< 4.0
MW-4	10/21/2016	MW-4-102116	**38**	**---**	< 4.0
MW-101	10/19/2016	MW-101-101916	**48**	<1.0	23
MW-203	10/21/2016	MW-203-102116	< 3.0	---	< 4.0
MW-207	10/21/2016	MW-207-102116	**27**	**---**	< 4.0
MW-AG1	10/21/2016	MW-AG1-102116	4.8	---	< 4.0
MW-AG2	10/19/2016	MW-AG2-101916	**5.8**	**---**	< 4.0
MTCA Cleanup Levels for Groundwater[3]			**5**	**15**	**NA**

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.
NA = not applicable
[1]Analyzed by U.S. Environmental Protection Agency Method 200.8/6010 Series.
[2]Analyzed by Standard Method 2540D.
[3]Washington 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.

Table 9
Summary of Soil Gas Analytical Results for Detected VOCs
3301 South Norfolk Street and 10230 East Marginal Way South
Seattle/Tukwila, Washington
Farallon PN: 1071-026

Sample Location	Sample Date	Sample Identification	Sample Depth (feet)[1]	Analytical Results (micrograms per cubic meter)[2]																	
				1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,2,4-Trimethylbenzene	1,2-Dichloroethane	Benzene	Carbon tetrachloride	Chloroethane	Chloroform	Ethylbenzene	Hexane	Methylene Chloride	Naphthalene	Tetrachloroethene (PCE)	Toluene	Trichloroethene (TCE)	m,p-Xylenes	o-Xylene
F-15	10/19/2014	SG-F15-101916	5.0	< 0.0273	< 0.109	< 0.0324	1.43	< 0.0809	2.36	0.126	< 0.259	0.293	1.74	2.26	0.556 B	< 1.57	46.7	9.95	< 0.0914	5.38	2.00
F-16	10/19/2014	SG-F16-101916	5.0	0.109	< 0.109	< 0.0324	0.393	< 0.0809	0.447	< 0.126	< 0.259	1.07	0.304	0.529	0.556 B	< 1.57	14.2	1.21	< 0.0914	0.825	0.347
F-17	10/19/2014	SG-F17-101916	5.0	< 0.0273	0.164	1.01	10.3	0.364	21.5	< 0.126	< 0.259	0.342	9.94	349	0.486 B	6.34	0.882	2.45	0.269	3.56	1.82
F-18	10/19/2014	SG-F18-101916	5.0	0.655	< 0.109	< 0.0324	2.75	0.405	1.57	0.189	0.607	**20.3**	3.17	3.28	1.08 B	< 1.57	1.15	20.0	< 0.0914	4.99	2.34
MTCA Method B Deep Soil Gas Screening Level[3]				**229,000**	**15.6**	**156**	**320**	**9.62**	**32.1**	**41.7**	**457,000**	**10.9**	**45,700**	**32,000**	**25,000**	**7.35**	**962**	**229,000**	**37.0**	**4,570[4]**	**4,570**

NOTES:

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

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

[1]Depth in feet below ground surface.

[2]Analyzed by U.S. Environmental Protection Agency Method TO-15/SIM.

[3]Washington State Model Toxics Control Act (MTCA) Cleanup Regulation Method B Deep Soil Gas Screening Levels, Table B-1 of Appendix B of the Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action. Revised February 2016.

[4]m,p-Xylene screening level based on m-xylene screening level.

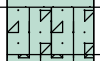
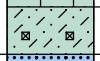
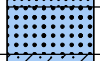
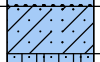
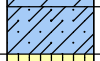
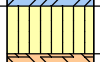
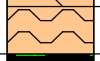
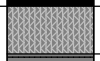
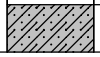
APPENDIX A
BORING LOGS

REMEDIAL INVESTIGATION, FOCUSED FEASIBILITY STUDY,
AND CLEANUP ACTION PLAN
3301 South Norfolk Street and 10230 East Marginal Way South
Seattle/Tukwila, Washington

Farallon PN: 1071-026

FARALLON CONSULTING

USCS Classification and Graphic Legend

Major Divisions			USCS Graphic Symbol	USCS Letter Symbol	Lithologic Description
Coarse-Grained Soil (More than 50% of material is larger than No. 200 sieve size)	GRAVEL AND GRAVELLY SOIL (More than 50% of coarse fraction retained on No. 4 sieve)	CLEAN GRAVEL (Little or no fines)		GW	Well graded GRAVEL, well graded GRAVEL with sand
				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
				GC	Clayey GRAVEL
	SAND AND SANDY SOIL (More than 50% of coarse fraction passed through No. 4 sieve)	CLEAN SAND (Little or no fines)		SW	Well graded SAND
				SP	Poorly graded SAND
		SAND WITH FINES (Appreciable amount of fines)		SP-SM	Poorly graded SAND - silty SAND
				SM	Silty SAND
				SC	Clayey SAND
				SM-ML	SILT - Silty SAND
Fine-Grained Soil (More than 50% of material is smaller than No. 200 sieve size)	SILT AND CLAY (Liquid limit less than 50)			ML	SILT
				CL	CLAY
				OL	Organic SILT
	SILT AND CLAY (Liquid limit greater than 50)			MH	Inorganic SILT
				CH	Inorganic CLAY
				OH	Organic CLAY
		Highly Organic Soil		PT	Peat
OTHER MATERIALS	PAVEMENT			AC	Asphalt concrete
				CO	Concrete
	OTHER			RK	Bedrock
				WD	Wood Debris
				DB	Debris (Miscellaneous)
				PC	Portland cement

Legend

Sample Interval

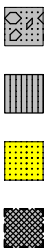
G — Grab Sample Interval

Water level at time of drilling

Water level at time of sampling

Blank Casing

Screened Casing



Cement Grout

Bentonite

Sand Pack

Well Cap

_____ Solid line indicates sharp contact between units well defined.

- - - - - - - Dashed line indicates gradational contact between units.

feet bgs = feet below ground surface

NE = Not Encountered

NA = Not Applicable

PID = Photoionization Detector

PN = Project Number

*ppm = parts per million total organic vapors in isobutylene equivalents using a 10.6 electron volt lamp

USCS = Unified Soil Classification System

Logs for Borings F-1 to F-23

Farallon Consulting, LLC
October 2016

Log of Boring: F-1

Client: Prologis
Project: East Marginal & South Norfolk
Location: Seattle/Tukwila, Washington
Farallon PN: 1071-014
Logged By: Ryan Ostrom

Date/Time Started:	10/20/16 @ 1335	**Sampler Type:**	4' Macrocore
Date/Time Completed:	10/20/16 @ 1450	**Drive Hammer (lbs.):**	Auto
Equipment:	PowerProbe 9500	**Depth of Water ATD (ft bgs):**	4.0
Drilling Company:	Holocene	**Total Boring Depth (ft bgs):**	16.0
Drilling Foreman:	Mitch McCarley	**Total Well Depth (ft bgs):**	NA
Drilling Method:	Direct Push		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-0.5': Concrete - Cored.	CO							Concrete
		0.5-2.0': Control Density Fill (CDF), gray, moist, concrete odor.	FILL							
		2.0-2.7': Silty SAND with gravel (60% sand, 30% silt, 10% gravel), fine to medium sand, fine gravel, gray, moist, mild petroleum-like odor.	SM		55		1.7	F-1-2.5		
		2.7-4.0': No recovery.								Water Level
5		4.0-5.7': Silty SAND with gravel (50% sand, 30% silt, 20% gravel), fine to coarse sand, fine gravel, gray, wet, petroleum-like odor.	SM							
		5.7-8.0': No recovery.			43		145	F-1-5.7	X	
		8.0-9.5': Silty SAND (60% sand, 40% silt), fine to medium sand, gray, wet, petroleum-like odor.	SM				338	F-1-8.0		
10		9.5-12.0': No recovery.			38			F-1-GW	X	
		12.0-13.5': Silty SAND (60% sand, 40% silt), fine to medium sand, gray, wet, petroleum-like odor.	SM				35.7	Soil Screen @ 12.0'		Bentonite
		13.5-16.0': Poorly graded SAND (95% sand, 5% silt), fine to medium sand, gray, wet, mild petroleum-like odor.	SP		100					
15		Recon Groundwater Turbidity Readings Time: 1411 1411 1412 NTU: 207 193 174								

Well Construction Information

Monument Type:	NA	**Filter Pack:**	NA	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	3/4	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.010	**Annular Seal:**	NA	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	10-15 (Temp)	**Boring Abandonment:**	Bentonite		**Y:** NA

FARALLON CONSULTING

Log of Boring: F-2

Client: Prologis
Project: East Marginal & South Norfolk
Location: Seattle/Tukwila, Washington
Farallon PN: 1071-014
Logged By: Ryan Ostrom

Date/Time Started:	10/20/16 @ 0925	**Sampler Type:**	4' Macrocore
Date/Time Completed:	10/20/16 @ 1045	**Drive Hammer (lbs.):**	Auto
Equipment:	PowerProbe 9500	**Depth of Water ATD (ft bgs):**	8.5
Drilling Company:	Holocene	**Total Boring Depth (ft bgs):**	16.0
Drilling Foreman:	Mitch McCarley	**Total Well Depth (ft bgs):**	NA
Drilling Method:	Direct Push		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-2.0': Hand auger to clear utilities. Refusal at 2.0 due to controlled density fill (CDF).	FILL							Concrete
		2.0-3.5': Controlled density fill (CDF), gray, concrete odor.	FILL		75					
		3.5-4.0': No recovery.					0.3	Soil Screen @ 3.5'		
5		4.0-8.0': Controlled density fill (CDF), gray, concrete odor.	FILL		100		0.3	F-2-7.0	X	
		8.0-8.5': Controlled density fill (CDF), gray, concrete odor.	FILL				53.7	F-2-8.5		Water Level
		8.5-10.0': Silty SAND (60% sand, 30% silt, 10% gravel), fine to medium sand, fine gravel, gray, wet, petroleum-like odor.	SM							
10		10.0-10.8': Silty SAND (80% sand, 20% silt), fine sand, gray, wet, petroleum-like odor.	SM		70			F-2-GW	X	
		10.8-12.0': No recovery.								
		12.0-16.0': Poorly graded SAND (95% sand, 5% silt), fine to medium sand, dark gray, wet, no odor.	SP		100		0.7	Soil Screen @ 12.0'		Bentonite
15		Recon Groundwater Turbidity Readings Time: 0955 0955 0956 NTU: 190 172 186								

Well Construction Information

Monument Type:	NA	**Filter Pack:**	NA	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	3/4	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.010	**Annular Seal:**	NA	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	10-15 (Temp)	**Boring Abandonment:**	Bentonite		**Y:** NA

Log of Boring: F-5

Client: Prologis
Project: East Marginal & South Norfolk
Location: Seattle/Tukwila, Washington
Farallon PN: 1071-014
Logged By: Ryan Ostrom

Date/Time Started:	10/26/16 @ 1020	**Sampler Type:**	4' Macrocore
Date/Time Completed:	10/26/16 @ 1120	**Drive Hammer (lbs.):**	Auto
Equipment:	PowerProbe 9500	**Depth of Water ATD (ft bgs):**	5.0
Drilling Company:	Holocene	**Total Boring Depth (ft bgs):**	16.0
Drilling Foreman:	Mitch McCarley	**Total Well Depth (ft bgs):**	NA
Drilling Method:	Direct Push		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-5.0': Air Knife to clear utilities. Silty SAND with gravel (40% sand, 30% gravel, 30% silt), fine to medium sand, fine to coarse gravel, gray, moist, no odor.	SM				0.0	Soil Screen @ 2.5'		Asphalt
5		5.0-6.0': SILT with sand (85% silt, 15% sand), fine sand, gray, wet (possibly from rain water), no odor.	ML							Water Level
		6.0-8.0': No recovery.			33		0.6	F-5-6.0	X	
		8.0-10.6': SILT with sand (85% silt, 15% sand), fine sand, gray, wet, no odor.	ML							
10		10.6-12.0': No recovery.			65		0.0	Soil Screen @ 10.5'		
		12.0-13.0': Silty SAND with gravel (50% sand, 30% silt, 20% gravel), fine to coarse sand, fine gravel, gray, wet, no odor.	SM					F-5-GW	X	Bentonite
		13.0-16.0': No recovery.			25					
15		Encountered very slow recovery while collecting recon groundwater. Turbidity was not measured. The well went dry 4 times while collecting water samples.								

Well Construction Information

Monument Type:	NA	**Filter Pack:**	NA	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	3/4	**Surface Seal:**	Asphalt	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.010	**Annular Seal:**	NA	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	8-13 (Temp)	**Boring Abandonment:**	Bentonite		**Y:** NA

Log of Boring: F-7

Client: Prologis
Project: East Marginal & South Norfolk
Location: Seattle/Tukwila, Washington
Farallon PN: 1071-014
Logged By: Ryan Ostrom

Date/Time Started:	10/26/16 @ 1125	**Sampler Type:**	4' Macrocore
Date/Time Completed:	10/26/16 @ 1230	**Drive Hammer (lbs.):**	Auto
Equipment:	PowerProbe 9500	**Depth of Water ATD (ft bgs):**	5.0
Drilling Company:	Holocene	**Total Boring Depth (ft bgs):**	16.0
Drilling Foreman:	Mitch McCarley	**Total Well Depth (ft bgs):**	NA
Drilling Method:	Direct Push		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-5.0': Air Knife to clear utilities. Sandy SILT (70% silt, 20% sand, 10% gravel), fine to medium sand, fine gravel, gray, moist, no odor.	ML				0.4	Soil Screen @ 2.5'		Asphalt
5		5.0-5.7': Sandy SILT (50% silt, 40% sand, 10% gravel), fine sand and gravel, gray, wet, no odor.	ML							Water Level
		5.7-7.5': SILT (90% silt, 10% sand), fine sand, gray, wet, no odor.	ML		83		0.4	F-7-7.0	X	
		7.5-8.0': No recovery.								
		8.0-9.5': SILT (90% silt, 10% sand), fine sand, gray, wet, no odor.	ML							
10		9.5-12.0': No recovery.			38		0.1	Soil Screen @ 9.5'		
		12.0-13.2': SILT (90% silt, 10% sand), fine sand, gray, wet, no odor.	ML					F-7-GW	X	Bentonite
		13.2-14.7': Silty SAND (85% sand, 15% silt), fine to medium sand, gray, wet, very mild petroleum-like odor.	SM		68					
15		14.7-16.0': No recovery.					0.3			
		Encountered very slow recovery while collecting recon groundwater. Turbidity was not measured. The well went dry 4 times while collecting water samples.								

Well Construction Information

Monument Type:	NA	**Filter Pack:**	NA	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	3/4	**Surface Seal:**	Asphalt	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.010	**Annular Seal:**	NA	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	9-14 (Temp)	**Boring Abandonment:**	Bentonite		**Y:** NA

Log of Boring: F-8

Client: Prologis
Project: East Marginal & South Norfolk
Location: Seattle/Tukwila, Washington
Farallon PN: 1071-014
Logged By: Ryan Ostrom

Date/Time Started:	10/26/16 @ 1310	**Sampler Type:**	4' Macrocore
Date/Time Completed:	10/26/16 @ 1410	**Drive Hammer (lbs.):**	Auto
Equipment:	PowerProbe 9500	**Depth of Water ATD (ft bgs):**	8.0
Drilling Company:	Holocene	**Total Boring Depth (ft bgs):**	16.0
Drilling Foreman:	Mitch McCarley	**Total Well Depth (ft bgs):**	NA
Drilling Method:	Direct Push		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-5.0': Air Knife to clear utilities. Sandy SILT (80% sand, 20% silt), fine to medium sand, fine gravel, gray, moist, no odor.	ML				0.4	Soil Screen @ 2.5'		Asphalt
5		5.0-6.0': SILT with sand (85% silt, 15% sand), fine sand, gray, moist, no odor.	ML				0.4	F-8-6.0	X	
		6.0-8.0': No recovery.			33					
		8.0-9.9': SILT (100% silt), gray, wet, no odor.	ML							Water Level
10		9.9-12.0': No recovery.			48		0.1	Soil Screen @ 9.9'		
		12.0-14.9': SILT (100% silt), gray, wet, no odor.	ML					F-8-GW	X	Bentonite
					100					
15		14.9-16.0': Poorly graded SAND (95% sand, 5% silt), fine to medium sand, gray, wet, very mild-petroleum like odor.	SP				0.8	Soil Screen @ 15.0'		
		Encountered very slow recovery while collecting recon groundwater. Turbidity was not measured. The well went dry 6 times while collecting water samples.								

Well Construction Information

Monument Type:	NA	**Filter Pack:**	NA	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	3/4	**Surface Seal:**	Asphalt	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.010	**Annular Seal:**	NA	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	10-15 (Temp)	**Boring Abandonment:**	Bentonite		**Y:** NA

Log of Boring: F-9

Client: Prologis
Project: East Marginal & South Norfolk
Location: Seattle/Tukwila, Washington
Farallon PN: 1071-014
Logged By: Ryan Ostrom

Date/Time Started:	10/26/16 @ 1455	**Sampler Type:**	4' Macrocore
Date/Time Completed:	10/26/16 @ 1530	**Drive Hammer (lbs.):**	Auto
Equipment:	PowerProbe 9500	**Depth of Water ATD (ft bgs):**	8.0
Drilling Company:	Holocene	**Total Boring Depth (ft bgs):**	16.0
Drilling Foreman:	Mitch McCarley	**Total Well Depth (ft bgs):**	NA
Drilling Method:	Direct Push		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-5.0': Air Knife to clear utilities.								Asphalt
		Sandy SILT (80% silt, 20% sand), fine to medium sand, gray, moist, no odor.	ML				0.5	Soil Screen @ 2.5'		
5		5.0-8.0': No recovery. Soil was lost during extraction of the macrocore.			0					
		8.0-11.1': SILT (95% silt, 5% sand), fine sand, gray, wet, no odor, minor wood debris at 11.0'.	ML				0.4	F-9-8.0	X	Water Level
10		11.1-12.0': No recovery.			78					
		12.0-14.5': SILT (95% silt, 5% sand), fine sand, gray, wet, no odor, minor wood debris at 11.0'.	ML					F-9-GW	X	Bentonite
		14.5-16.0': Silty SAND (85% sand, 15 silt), fine sand, gray, wet, no odor.	SM		100		0.3	Soil Screen @ 14.5'		
15		Encountered very slow recovery while collecting recon groundwater. Turbidity was not measured. The well went dry 10 times while collecting water samples.								

Well Construction Information

Monument Type:	NA	**Filter Pack:**	NA	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	3/4	**Surface Seal:**	Asphalt	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.010	**Annular Seal:**	NA	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	8-13 (Temp)	**Boring Abandonment:**	Bentonite		**Y:** NA

Log of Boring: F-10

Client: Prologis
Project: East Marginal & South Norfolk
Location: Seattle/Tukwila, Washington
Farallon PN: 1071-014
Logged By: Ryan Ostrom

Date/Time Started:	10/26/16 @ 1700	**Sampler Type:**	4' Macrocore
Date/Time Completed:	10/26/16 @ 1750	**Drive Hammer (lbs.):**	Auto
Equipment:	PowerProbe 9500	**Depth of Water ATD (ft bgs):**	8.0
Drilling Company:	Holocene	**Total Boring Depth (ft bgs):**	16.0
Drilling Foreman:	Mitch McCarley	**Total Well Depth (ft bgs):**	NA
Drilling Method:	Direct Push		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-5.0': Air Knife to clear utilities. Silty SAND (70% sand, 20% silt, 10% gravel), fine to medium sand, fine gravel, gray, moist, no odor.	SM				0.4	Soil Screen @ 2.5'		Asphalt
5		5.0-6.4': SILT with sand (85% silt, 15% sand), fine sand, gray, moist, no odor.	ML							
		6.4-8.0': No recovery.			47		0.8	Soil Screen @ 6.4'		
		8.0-12.0': No recovery. Soil was lost during extraction of the macrocore.			0					Water Level
10		12.0-16.0': No recovery. Soil was lost during extraction of the macrocore.			0			F-10-GW	X	Bentonite
15		Encountered very slow recovery while collecting recon groundwater. Turbidity was not measured. The well went dry 3 times while collecting water samples.								

Well Construction Information

Monument Type:	NA	**Filter Pack:**	NA	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	3/4	**Surface Seal:**	Asphalt	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.010	**Annular Seal:**	NA	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	5-15 (Temp)	**Boring Abandonment:**	Bentonite		**Y:** NA

Log of Boring: F-11

Client: Prologis
Project: East Marginal & South Norfolk
Location: Seattle/Tukwila, Washington
Farallon PN: 1071-014
Logged By: Ryan Ostrom

Date/Time Started:	10/18/16 @ 0845	**Sampler Type:**	4' Macrocore
Date/Time Completed:	10/18/16 @ 1025	**Drive Hammer (lbs.):**	Auto
Equipment:	AMS 9100 P	**Depth of Water ATD (ft bgs):**	9.0
Drilling Company:	Holocene	**Total Boring Depth (ft bgs):**	16.0
Drilling Foreman:	Mitch McCarley	**Total Well Depth (ft bgs):**	NA
Drilling Method:	Direct Push		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-5.0': Hand auger to clear utilities. Poorly graded SAND with silt (90% sand, 10% silt), fine to medium sand, brown, moist, no odor.	SM				0.0	Soil Screen @ 2.5'		Concrete
5		5.0-7.6': No recovery due to loose sand.			13					
		7.6-8.0': Silty SAND (60% sand, 30% silt, 10% gravel), fine to medium sand, fine gravel, brown, moist, no odor.	SM				0.1	F-11-8.0	X	
10		8.0-12.0': No recovery. Driller states they were pushing a rock through very loose sand. Drillers indicate water at 9.0'.			0			F-11-GW	X	Water Level
		12.0-14.4': SILT with sand (80% silt, 20% sand), fine sand, gray, wet, no odor.	ML				0.4	F-11-12.0		Bentonite
15		14.4-16.0': No recovery.			60					
		Recon Groundwater Turbidity Readings Time: 0946 0946 0947 NTU: 2813 2677 2492								

Well Construction Information

Monument Type:	NA	**Filter Pack:**	NA	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	3/4	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.010	**Annular Seal:**	NA	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	5-15 (Temp)	**Boring Abandonment:**	Bentonite		**Y:** NA

Log of Boring: F-12

Client: Prologis
Project: East Marginal & South Norfolk
Location: Seattle/Tukwila, Washington
Farallon PN: 1071-014
Logged By: Ryan Ostrom

Date/Time Started:	10/17/16 @ 1315	**Sampler Type:**	4' Macrocore
Date/Time Completed:	10/17/16 @ 1540	**Drive Hammer (lbs.):**	Auto
Equipment:	PowerProbe 9500	**Depth of Water ATD (ft bgs):**	8.3
Drilling Company:	Holocene	**Total Boring Depth (ft bgs):**	16.0
Drilling Foreman:	Mitch McCarley	**Total Well Depth (ft bgs):**	NA
Drilling Method:	Direct Push		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-5.0': Hand auger to clear utilities.	SM							Concrete
		Silty SAND (80% sand, 20% silt), fine sand, gray, moist, no odor.					0.4	Soil Screen @ 2.5'		
5		5.0-6.7': Poorly graded SAND with silt (90% sand, 10% silt), fine to medium sand, gray, moist, no odor.	SP-SM		57		0.6	F-12-6.7	X	
		6.7-8.0': No recovery.								
		8.0-8.3': Poorly graded SAND with silt (90% sand, 10% silt), fine to medium sand, gray, moist, no odor.	SP-SM				0.9	Soil Screen @ 8.0'		Water Level
		8.3-9.7': SILT (90% silt, 10% sand), fine sand, gray, wet, no odor.	SM							
10		9.7-12.0': No recovery.			43			F-12-GW	X	
		12.0-16.0': Silty SAND (85% sand, 15% silt), fine to medium sand, gray, wet, no odor.	SM		100		0.4	Soil Screen @ 12.0'		Bentonite
15		Recon Groundwater Turbidity Readings Time: 1420 1420 1421 NTU: 220 197 192								

Well Construction Information

Monument Type:	NA	**Filter Pack:**	NA	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	3/4	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.010	**Annular Seal:**	NA	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	10-15 (Temp)	**Boring Abandonment:**	Bentonite		**Y:** NA

Log of Boring: F-13

Client: Prologis
Project: East Marginal & South Norfolk
Location: Seattle/Tukwila, Washington
Farallon PN: 1071-014
Logged By: Ryan Ostrom

Date/Time Started:	10/18/16 @ 1035	**Sampler Type:**	4' Macrocore
Date/Time Completed:	10/18/16 @ 1140	**Drive Hammer (lbs.):**	Auto
Equipment:	AMS 9100 P	**Depth of Water ATD (ft bgs):**	10.8
Drilling Company:	Holocene	**Total Boring Depth (ft bgs):**	16.0
Drilling Foreman:	Mitch McCarley	**Total Well Depth (ft bgs):**	NA
Drilling Method:	Direct Push		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-5.0': Hand auger to clear utilities. Poorly graded SAND with silt (90% sand, 10% silt), fine to medium sand, brown, moist, no odor.	SM				0.0	F-13-2.5	X	Concrete
5		5.0-8.0': No recovery. Drillers indicate that there is likely a rock in the shoe.			0					Bentonite
		8.0-12.0': No recovery. Drillers think they are pushing a rock.			0					Water Level
10		12.0-16.0': No recovery. Drillers think they are pushing a rock.			0			F-13-GW	X	
15		Encountered very slow recovery while collecting recon groundwater. Turbidity was not measured.								

Well Construction Information

Monument Type:	NA	**Filter Pack:**	NA	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	3/4	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.010	**Annular Seal:**	NA	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	5-15 (Temp)	**Boring Abandonment:**	Bentonite		**Y:** NA

FARALLON CONSULTING

Log of Boring: F-14

Client: Prologis
Project: East Marginal & South Norfolk
Location: Seattle/Tukwila, Washington

Farallon PN: 1071-014

Logged By: Ryan Ostrom

Date/Time Started:	10/18/16 @ 1145	**Sampler Type:**	4' Macrocore
Date/Time Completed:	10/18/16 @ 1420	**Drive Hammer (lbs.):**	Auto
Equipment:	PowerProbe 9500	**Depth of Water ATD (ft bgs):**	12.0
Drilling Company:	Holocene	**Total Boring Depth (ft bgs):**	16.0
Drilling Foreman:	Mitch McCarley	**Total Well Depth (ft bgs):**	NA
Drilling Method:	Direct Push		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-5.0': Hand auger to clear utilities. Poorly graded SAND with silt (90% sand, 10% silt), fine to medium sand, brown, moist, no odor.	SP-SM				0.0	Soil Screen @ 2.5'		Asphalt
5		5.0-5.6': Poorly graded SAND with silt (90% sand, 10% silt), fine to medium sand, gray, moist, no odor.	SP-SM				0.2	F-14-6.0	X	
		5.6-6.0': SILT (90% silt, 10% sand), fine sand, gray, moist, no odor.	ML		33					
		6.0-8.0': No recovery.								
		8.0-9.6': Sandy SILT (60% silt, 40% sand), fine to medium sand, gray, moist, no odor.	ML				0.3	F-14-9.0		Bentonite
10		9.6-12.0': No recovery.			40			F-14-GW	X	
		12.0-16.0': Poorly graded SAND with silt (90% sand, 10% silt), fine to medium sand, gray, wet, no odor.	SP-SM				0.0	Soil Screen @ 12.0'		Water Level
15					100					
		Recon Groundwater Turbidity Readings Time: 1338 1339 1339 NTU: 444 373 470								

Well Construction Information

Monument Type:	NA	**Filter Pack:**	NA	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	3/4	**Surface Seal:**	Asphalt	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.010	**Annular Seal:**	NA	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	10-15 (Temp)	**Boring Abandonment:**	Bentonite		**Y:** NA

FARALLON CONSULTING

Log of Boring: F-16

Client: Prologis
Project: East Marginal & South Norfolk
Location: Seattle/Tukwila, Washington
Farallon PN: 1071-014
Logged By: Ryan Ostrom

Date/Time Started:	10/17/16 @ 1140	**Sampler Type:**	4' Macrocore
Date/Time Completed:	10/17/16 @ 1300	**Drive Hammer (lbs.):**	Auto
Equipment:	PowerProbe 9500	**Depth of Water ATD (ft bgs):**	8.0
Drilling Company:	Holocene	**Total Boring Depth (ft bgs):**	16.0
Drilling Foreman:	Mitch McCarley	**Total Well Depth (ft bgs):**	NA
Drilling Method:	Direct Push		

Depth (feet bgs.)	Lithologic Description	USCS	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0	0.0-5.0': Hand auger to clear utilities. Poorly graded SAND (95% sand, 5% silt), fine to medium sand, gray, moist, no odor.	SP		0.1	Soil Screen @ 2.5'		Asphalt
5	5.0-6.4': Poorly graded SAND with silt (90% sand, 10% silt), fine to medium sand, gray, moist, no odor.	SP-SM	47	1.2	Soil Screen @ 6.4'		Water Level
	6.4-8.0': No recovery.						
	8.0-8.5': Silty SAND (70% sand, 30% silt), fine to medium sand, gray, wet, no odor.	SM					
	8.5-9.7': SILT (90% silt, 10% sand), fine sand, gray, wet, no odor.	ML		0.4	Soil Screen @ 9.7'		
10	9.7-12.0': No recovery.		43				
	12.0-13.0': Sandy SILT (70% silt, 30% sand), fine sand, gray, wet, no odor.	ML			F-16-GW	X	Bentonite
	13.0-15.4': Silty SAND (80% sand, 20% silt), fine to medium sand, gray, wet, no odor.	SM	85	0.3	Soil Screen @ 15.0'		
15	15.4-16.0': No recovery.						
	Recon Groundwater Turbidity Readings Time: 1230 1230 1231 NTU: 273 187 130						

Well Construction Information

Monument Type:	NA	**Filter Pack:**	NA	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	3/4	**Surface Seal:**	Asphalt	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.010	**Annular Seal:**	NA	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	10-15 (Temp)	**Boring Abandonment:**	Bentonite		**Y:** NA

Log of Boring: F-17

Client: Prologis
Project: East Marginal & South Norfolk
Location: Seattle/Tukwila, Washington
Farallon PN: 1071-014
Logged By: Ryan Ostrom

Date/Time Started:	10/17/16 @ 1020	**Sampler Type:**	4' Macrocore
Date/Time Completed:	10/17/16 @ 1230	**Drive Hammer (lbs.):**	Auto
Equipment:	PowerProbe 9500	**Depth of Water ATD (ft bgs):**	12.5
Drilling Company:	Holocene	**Total Boring Depth (ft bgs):**	16.0
Drilling Foreman:	Mitch McCarley	**Total Well Depth (ft bgs):**	NA
Drilling Method:	Direct Push		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-5.0': Hand auger to clear utilities.								Asphalt
		Poorly graded SAND with silt and gravel (70% sand, 20% gravel, 10% silt), fine to medium sand, fine to coarse gravel, brown, moist, no odor.	SP-SM				0.3	Soil Screen @ 2.5'		
5		5.0-7.8': Poorly graded SAND (95% sand, 5% silt), fine to medium sand, brown, moist, no odor.	SP		93		0.3	Soil Screen @ 7.8'		
		7.8-8.0': No recovery.					126	Soil Screen @ 8.0'		Bentonite
		8.0-9.7': SILT (90% silt, 10% sand), fine sand, gray, moist, petroleum-like odor.	ML							
10		9.7-12.0': No recovery.			43		378	F-17-9.7	X	
								F-17-GW	X	
		12.0-12.5': Poorly graded SAND (95% sand, 5% silt), fine to medium sand, brown, moist, petroleum-like odor.	SP				209	Soil Screen @ 12.0'		Water Level
		12.5-15.3': Silty SAND (70% sand, 30% silt), fine sand, gray, wet, petroleum-like odor.	SM		83					
15		15.3-16.0': No recovery.								
		Recon Groundwater Turbidity Readings Time: 1110 1110 1111 NTU: 975 792 660								

Well Construction Information

Monument Type:	NA	**Filter Pack:**	NA	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	3/4	**Surface Seal:**	Asphalt	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.010	**Annular Seal:**	NA	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	10-15 (Temp)	**Boring Abandonment:**	Bentonite		**Y:** NA

Log of Boring: F-18

FARALLON CONSULTING

Client: Prologis
Project: East Marginal & South Norfolk
Location: Seattle/Tukwila, Washington
Farallon PN: 1071-014
Logged By: Ryan Ostrom

Date/Time Started:	10/17/16 @ 0835	**Sampler Type:**	4' Macrocore
Date/Time Completed:	10/17/16 @ 1015	**Drive Hammer (lbs.):**	Auto
Equipment:	PowerProbe 9500	**Depth of Water ATD (ft bgs):**	8.0
Drilling Company:	Holocene	**Total Boring Depth (ft bgs):**	16.0
Drilling Foreman:	Mitch McCarley	**Total Well Depth (ft bgs):**	NA
Drilling Method:	Direct Push		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-5.0': Hand auger to clear utilities. Poorly graded SAND with silt (80% sand, 10% gravel, 10% silt), fine to medium sand, fine gravel, brown, moist, no odor.	SP-SM				0.0	Soil Screen @ 2.5'		Asphalt
5		5.0-7.0': Poorly graded SAND with silt (90% sand, 10% silt), fine to medium sand, brown, moist, no odor.	SP-SM		73					
		7.0-7.2': Silty SAND (70% Sand, 30% silt), fine sand, gray, moist, mild organic odor.	SM				0.6	Soil Screen @ 7.0'		
		7.2-8.0': No recovery.	SM				17.4	F-18-8.0	X	Water Level
		8.0-8.3': Silty SAND (70% Sand, 30% silt), fine sand, gray, wet, mild organic odor.	ML							
10		8.3-10.0': SILT (95% silt, 5% sand), fine sand, gray, wet, mild petroleum-like odor.	SM		58		7.5	Soil Screen @ 9.8'		
		10.0-10.3': Silty SAND (70% Sand, 30% silt), fine sand, gray, wet, mild petroleum-like odor.								
		10.3-12.0': No recovery.	SM					F-18-GW	X	Bentonite
		12.0-12.8': Silty SAND (70% Sand, 30% silt), fine sand, gray, wet, mild petroleum-like odor.	ML							
		12.8-16.0': SILT (95% silt, 5% sand), fine sand, gray, wet, mild petroleum-like odor.			100					
15		Recon Groundwater Turbidity Readings Time: 0935 0935 0936 NTU: 865 723 644					1.3	Soil Screen @ 16.0'		

Well Construction Information

Monument Type:	NA	**Filter Pack:**	NA	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	3/4	**Surface Seal:**	Asphalt	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.010	**Annular Seal:**	NA	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	10-15 (Temp)	**Boring Abandonment:**	Bentonite		**Y:** NA

Log of Boring: F-20

Client: Prologis
Project: East Marginal & South Norfolk
Location: Seattle/Tukwila, Washington
Farallon PN: 1071-014
Logged By: Ryan Ostrom

Date/Time Started:	10/18/16 @ 1520	**Sampler Type:**	4' Macrocore
Date/Time Completed:	10/19/16 @ 1245	**Drive Hammer (lbs.):**	Auto
Equipment:	AMS 9100 P	**Depth of Water ATD (ft bgs):**	5.0
Drilling Company:	Holocene	**Total Boring Depth (ft bgs):**	12.0
Drilling Foreman:	Mitch McCarley	**Total Well Depth (ft bgs):**	NA
Drilling Method:	Direct Push		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-5.0': Hand auger to clear utilities. Silty SAND (70% sand, 20% silt, 10% gravel), fine to medium sand, fine to coarse gravel, brown, moist, no odor.	SM				0.0	F-20-2.5		Concrete
5		5.0-6.6': Silty SAND (80% sand, 20% silt), fine to medium sand, orangish-gray, wet, no odor.	SM							Water Level
		6.6-7.5': Sandy SILT (70% silt, 30% sand), fine sand, gray, wet, no odor, minor wood debris at 7.0'.	ML		83		0.1	F-20-7.0	X	
		7.5-8.0': No recovery.								
		8.0-11.2': SILT (95% silt, 5% sand), fine sand, gray, wet, no odor.	ML		80			F-20-GW	X	Bentonite
10		11.2-12.0': No recovery. Refusal @ 12.0'.								
		Encountered very slow recovery while collecting recon groundwater. Turbidity was not measured. The well went dry 3 times while collecting water samples.								
15										

Well Construction Information

Monument Type:	NA	**Filter Pack:**	NA	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	3/4	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.010	**Annular Seal:**	NA	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	7-12 (Temp)	**Boring Abandonment:**	Bentonite		**Y:** NA

Log of Boring: F-21

Client: Prologis
Project: East Marginal & South Norfolk
Location: Seattle/Tukwila, Washington
Farallon PN: 1071-014
Logged By: Ryan Ostrom

Date/Time Started:	10/19/16 @ 0910	**Sampler Type:**	4' Macrocore
Date/Time Completed:	10/19/16 @ 1035	**Drive Hammer (lbs.):**	Auto
Equipment:	PowerProbe 9500	**Depth of Water ATD (ft bgs):**	8.0
Drilling Company:	Holocene	**Total Boring Depth (ft bgs):**	16.0
Drilling Foreman:	Mitch McCarley	**Total Well Depth (ft bgs):**	NA
Drilling Method:	Direct Push		

Depth (feet bgs.)	Lithologic Description	USCS	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0	0.0-5.0': Hand auger to clear utilities. Silty SAND (70% sand, 20% silt, 10% gravel), fine to medium sand, fine to coarse gravel, brown, moist, no odor.	SM			0.0	Soil Screen @ 2.5'		Top Soil
5	5.0-6.7': Silty SAND (80% sand, 20% silt), fine to medium sand, brown, moist, no odor.	SM	57		0.0	F-21-6.7		
	6.7-8.0': No recovery.							Water Level
	8.0-9.1': Silty SAND (80% sand, 20% silt), fine to medium sand, brown, wet, no odor.	SM						
10	9.1-11.1': SILT (95% silt, 5% sand), fine sand, gray, wet, no odor.	ML	78			F-21-GW	X	
	11.0-12.0': No recovery.							
	12.0-14.2': SILT (95% silt, 5% sand), fine sand, gray, wet, no odor.	ML	55		0.2	Soil Screen @ 12.0'		Bentonite
15	14.2-16.0': No recovery.							
	Recon Groundwater Turbidity Readings Time: 1022 1022 1023 NTU: 134 138 130							

Well Construction Information

Monument Type:	NA	**Filter Pack:**	NA	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	3/4	**Surface Seal:**	Top Soil	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.010	**Annular Seal:**	NA	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	5-15 (Temp)	**Boring Abandonment:**	Bentonite		**Y:** NA

Log of Boring: F-22

Client: Prologis
Project: East Marginal & South Norfolk
Location: Seattle/Tukwila, Washington
Farallon PN: 1071-014
Logged By: Ryan Ostrom

Date/Time Started:	10/19/16 @ 1115	**Sampler Type:**	4' Macrocore
Date/Time Completed:	10/19/16 @ 1240	**Drive Hammer (lbs.):**	Auto
Equipment:	PowerProbe 9500	**Depth of Water ATD (ft bgs):**	5.0
Drilling Company:	Holocene	**Total Boring Depth (ft bgs):**	16.0
Drilling Foreman:	Mitch McCarley	**Total Well Depth (ft bgs):**	NA
Drilling Method:	Direct Push		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-5.0': Hand auger to clear utilities. Silty SAND (85% sand, 15% silt), fine to medium sand, brown, moist, no odor.	SM				0.1	Soil Screen @ 2.5'		Concrete
5		5.0-6.3': Silty SAND (70% sand, 30% silt), fine sand, brown, wet, no odor.	SM							Water Level
		6.3-7.0': Poorly graded SAND with silt (90% sand, 10% silt), fine to medium sand, gray, wet, no odor, minor wood debris.	SP-SM		66		0.1	F-22-7.0	X	
		7.0-8.0': No recovery.								
		8.0-8.7': Sity SAND (70% sand, 30% silt), fine sand, gray, wet, no odor, minor wood debris.	SM							
		8.7-10.2': SILT (95% silt, 5% sand), fine sand, brownish-gray, wet, no odor.	ML		55			F-22-GW	X	
10		10.2-12.0': No recovery.								
		12.0-14.3': SILT (95% silt, 5% sand), fine sand, brownish-gray, wet, no odor, minor wood debris.	ML				0.2	Soil Screen @ 12.0'		Bentonite
		14.3-14.7': Poorly graded SAND (95% sand, 5% silt), fine sand, gray, wet, no odor.	SP		68					
15		14.7-16.0': No recovery.								
		Encountered very slow recovery while collecting recon groundwater. Turbidity was not measured. The well went dry 3 times while collecting water samples.								

Well Construction Information

Monument Type:	NA	**Filter Pack:**	NA	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	3/4	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.010	**Annular Seal:**	NA	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	10-15 (Temp)	**Boring Abandonment:**	Bentonite		**Y:** NA

FARALLON CONSULTING

Log of Boring: F-23

Client: Prologis
Project: East Marginal & South Norfolk
Location: Seattle/Tukwila, Washington
Farallon PN: 1071-014
Logged By: Ryan Ostrom

Date/Time Started:	10/19/16 @ 1045	**Sampler Type:**	4' Macrocore
Date/Time Completed:	10/19/16 @ 1150	**Drive Hammer (lbs.):**	Auto
Equipment:	PowerProbe 9500	**Depth of Water ATD (ft bgs):**	8.0
Drilling Company:	Holocene	**Total Boring Depth (ft bgs):**	16.0
Drilling Foreman:	Mitch McCarley	**Total Well Depth (ft bgs):**	NA
Drilling Method:	Direct Push		

Depth (feet bgs.)	Lithologic Description	USCS	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0	0.0-5.0': Hand auger to clear utilities. Poorly graded SAND (95% sand, 5% silt), fine to medium sand, brown, moist, no odor.	SP			0.0	Soil Screen @ 2.5'		Concrete
5	5.0-6.7': Poorly graded SAND with silt (90% sand, 10% silt), fine to medium sand, brown, moist, no odor.	SP-SM	70					
	6.7-7.1': Silty SAND (60% sand, 40% silt), fine sand, gray, moist, no odor.	SM			0.8	Soil Screen @ 7.0'		
	7.1-8.0': No recovery.	SM						Water Level
	8.0-8.3': Silty SAND (60% sand, 40% silt), fine sand, gray, wet, no odor.	ML						
10	8.3-10.6': SILT (95% silt, 5% sand), fine sand, gray ,wet, no odor.		65					
	10.6-12.0': No recovery.							
	12.0-14.6': SILT (95% silt, 5% sand), fine sand, gray ,wet, no odor.	ML	70			F-23-GW	X	Bentonite
15	14.6-14.8': Poorly graded SAND with silt (90% sand, 10% silt), fine to medium sand, brown, wet, no odor.	SP-SM						
	14.8-16.0': No recovery.							
	Recon Groundwater Turbidity Readings Time: 1110 1110 1111 NTU: >1000 >1000 >1000							

Well Construction Information

Monument Type:	NA	**Filter Pack:**	NA	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	3/4	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.010	**Annular Seal:**	NA	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	10-15 (Temp)	**Boring Abandonment:**	Bentonite		**Y:** NA

Logs for Monitoring Wells MW-AG1 and MW-AG2

Dalton, Olmsted & Fuglevand, Inc.

October 2009

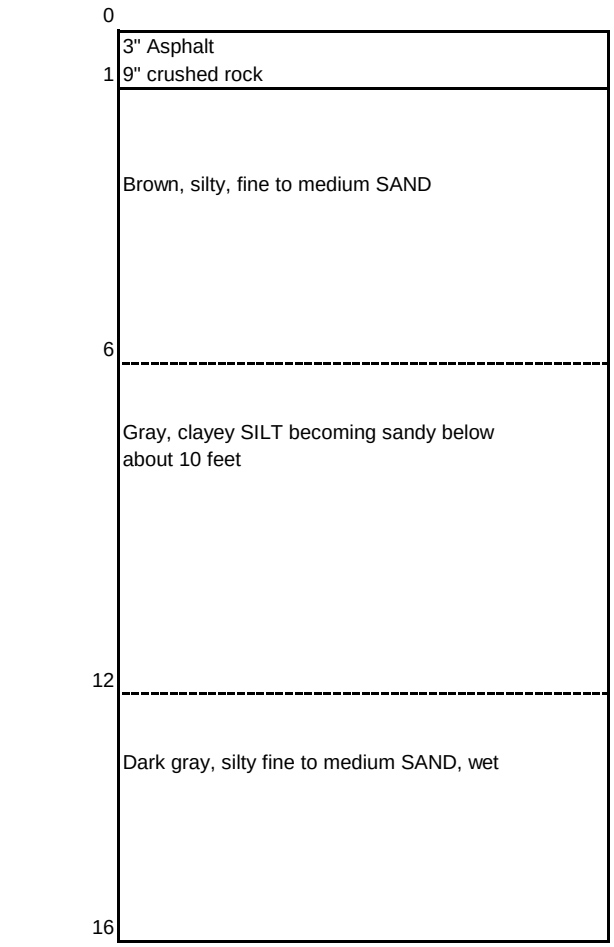
Dalton, Olmsted & Fuglevand, Inc.
Environmental Consultants

Monitor Well MW-AG1 - DESCRIPTION OF SAMPLES, TESTS, AND INSTALLATION

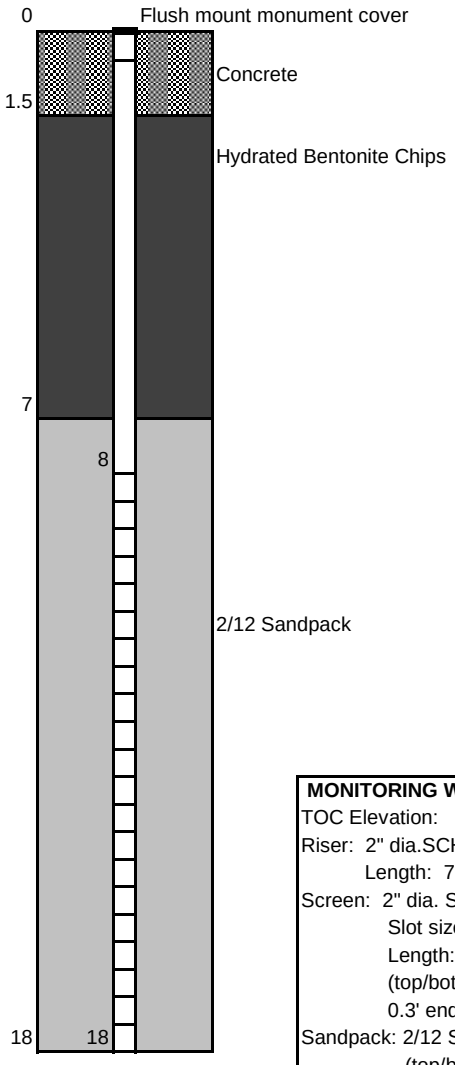
Field Rep: D. Cooper	Location: See Plan	**MONITOR WELL MW-AG1**
Drilling Co.: Cascade Testing	Elevation	
Driller: Jaymen	Date Completed: 09/01/2009	
Drill Type: CME 75	Weather: Cloudy	
Size/Type Casing: 4-inch Hollow Stem Auger		

Spl.No.	Type	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
					No Soil Samples Taken - Log based on adjacent Probe P-DOF-6.4

SUMMARY LOG (Based on Probe P-DOF-6.4)



Monitor Well MW-AG1 Installation Diagram



NOTE: The summary log is an interpretation based on samples, probe action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

MONITORING WELL INFORMATION

TOC Elevation:
Riser: 2" dia.SCH 40 PVC
Length: 7.8
Screen: 2" dia. SCH 40 PVC
Slot size: 0.010"
Length: 10'
(top/bot) 7.8/17.8
0.3' end cap
Sandpack: 2/12 Sand
(top/bot) 7/18
Seal: Hydrated bentonite chip
(top/bot) 1.5/7
Monument: 10"' dia. Flush mount
-0.3' to top of PVC/TOC

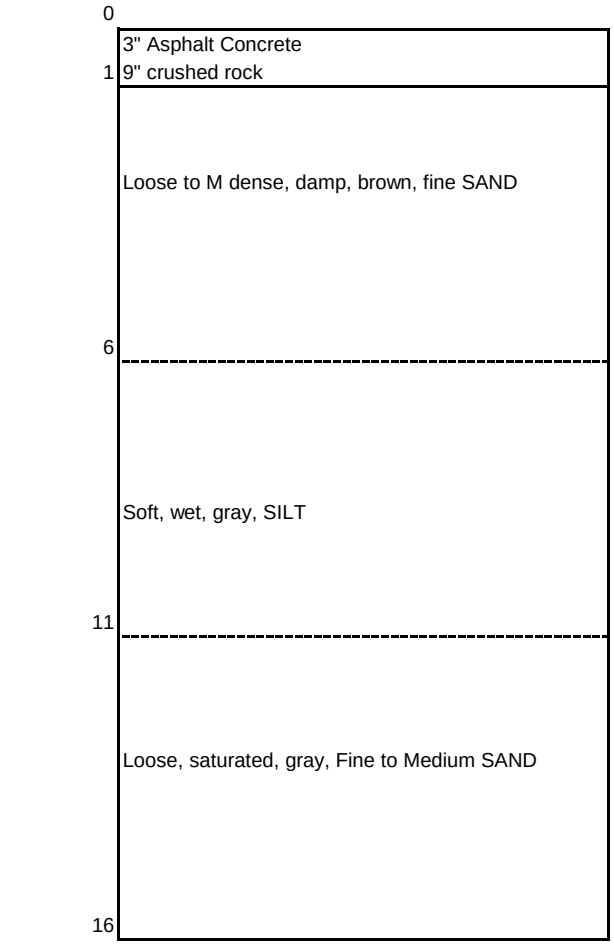
Dalton, Olmsted & Fuglevand, Inc.
Environmental Consultants

Monitor Well MW-AG2 - DESCRIPTION OF SAMPLES, TESTS, AND INSTALLATION

Field Rep: D. Cooper	Location: See Plan	**MONITOR WELL MW-AG2**
Drilling Co.: Cascade Testing	Elevation	
Driller: Curtis	Date Completed: 10/02/2009	
Drill Type: CME 75	Weather: Cloudy	
Size/Type Casing: 4-inch Hollow Stem Auger		

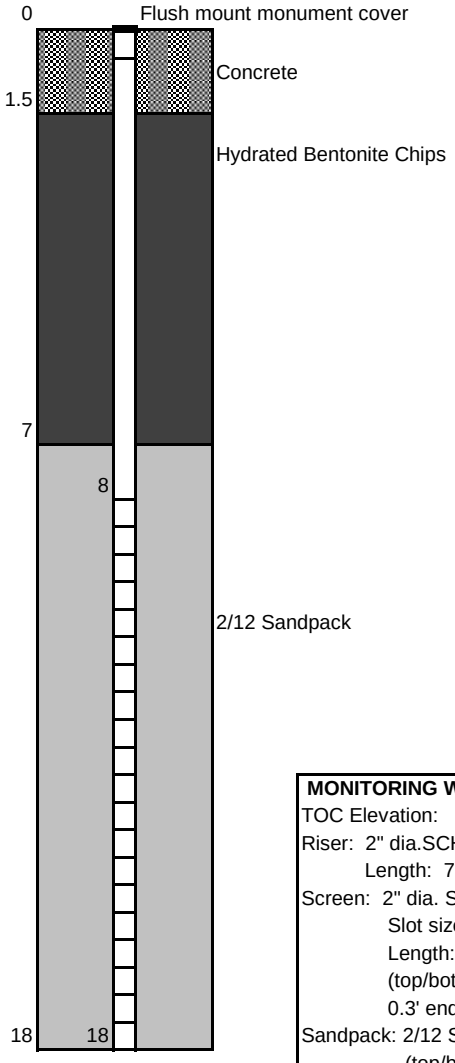
Spl.No.	Type	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
					No Soil Samples Taken - Log based on adjacent Probe P-DOF-6.1

SUMMARY LOG (Based on Probe P-DOF-6.4)



NOTE: The summary log is an interpretation based on samples, probe action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

Monitor Well MW-AG1 Installation Diagram



MONITORING WELL INFORMATION
TOC Elevation:
Riser: 2" dia.SCH 40 PVC
Length: 7.6
Screen: 2" dia. SCH 40 PVC
Slot size: 0.010"
Length: 10'
(top/bot) 7.6/17.6
0.3' end cap
Sandpack: 2/12 Sand
(top/bot) 7/18
Seal: Hydrated bentonite chip
(top/bot) 1.5/7
Monument: 10"' dia. Flush mount
-0.3' to top of PVC/TOC

Logs for Borings UNI–P1 to UNI-P3

Dalton, Olmsted & Fuglevand, Inc.
August 2009

BORING - DESCRIPTION OF SAMPLES & DATA

UNI - P1

Field Rep: DG Cooper
Drilling Co.: Cascade
Driller: C. Goble
Drill Type: Geoprobe 6600
Size/Type Casing: 1.5" Rod

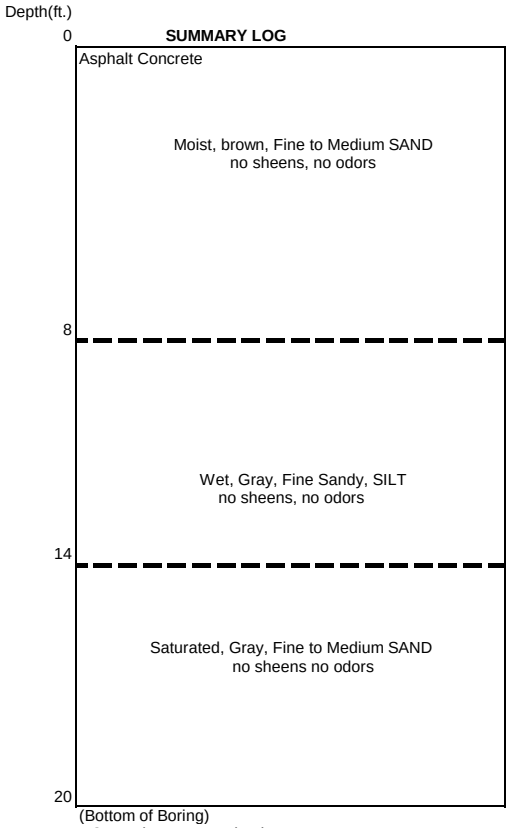
Location: South of Lean-to
Elevation (Ft.): AG grade
Date Completed: 8/31/09
Weather: Cloudy 65F
Hammer Type: Direct push

Ground Surface: Asphalt Concrete

Sampler Type: 2" Macro w/ acrylic liner

Spl.No.	Type sample saved	Drill Action	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
		Smooth	0-5	60		2" AC, 4" crushed rock pavement section
UNI-P1-4	Grab				0820	0.5-1.0 Moist, bwn, gravelly, SAND
						1-5 Moist, bwn F-M SAND, ns no
	3.5-4.5'					
			5-10	60		5-8 As above
UNI-P1-9	Grab				0825	8-10 Wet, gry, silty, F SAND, w/scattered organics, ns, no
	8.5-9.5'					
			10-15	36		10-14 Wet, gry, F sandy, SILT, ns, no
UNI-P1-14	Grab				0830	14-15 Sat, gry, F SAND, ns, no
	13.5-14.5					
			15-20	60		15-20 Sat, gry, F-M SAND, ns, no
UNI-P1-19	Grab			Piston	0835	
	18.5-19.5					

Completed boring backfilled with granular bentonite
ns - No sheen; no - No odor; F - Fine; F_M - Fine to medium



NOTE: The summary log is an interpretation based on samples, drill action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

BORING - DESCRIPTION OF SAMPLES & DATA

UNI - P2

Field Rep: DG Cooper
Drilling Co.: Cascade
Driller: C. Goble
Drill Type: Geoprobe 6600
Size/Type Casing: 1.5" Rod

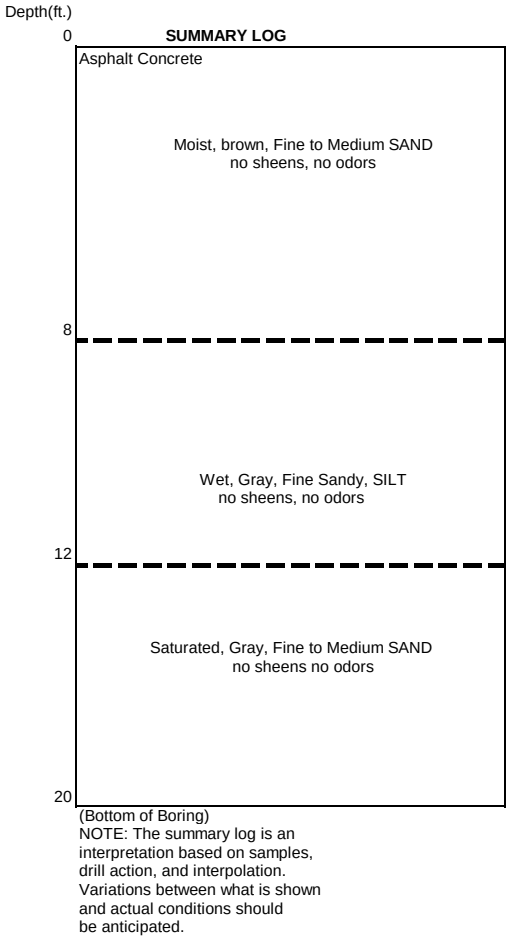
Location: Center
Elevation (Ft.): AG grade
Date Completed: 8/31/09
Weather: Cloudy 65F
Hammer Type: Direct push

Ground Surface: Asphalt Concrete

Sampler Type: 2" Macro w/ acrylic liner

Spl.No.	Type sample saved	Drill Action	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
		Smooth	0-5	60		2" AC, 4" crushed rock pavement section
UNI-P2-4	Grab				0850	0.5-2 Moist, bwn, silty, F_M SAND
						2-5 Moist, bwn, F-M SAND, ns, no
	3.5-4.5'					
			5-10	48		5-8 As above
UNI-P2-9	Grab				0855	8-10 Wet, gry, silty, F SAND, w/scattered organics, ns, no
	8.5-9.5'					
			10-15	48		10-12 Wet, gry, F sandy, SILT, ns, no
UNI-P2-14	Grab				0900	12-15 Sat, gry, F SAND, ns, no
	13.5-14.5					
			15-20	60		15-20 Sat, gry, F-M SAND, ns, no
UNI-P2-19	Grab			Piston	0905	
	18.5-19.5					

Completed boring backfilled with granular bentonite
ns - No sheen; no - No odor; F - Fine; F_M - Fine to medium



NOTE: The summary log is an interpretation based on samples, drill action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

BORING - DESCRIPTION OF SAMPLES & DATA

UNI - P3

Field Rep: DG Cooper
Drilling Co.: Cascade
Driller: C. Goble
Drill Type: Geoprobe 6600
Size/Type Casing: 1.5" Rod

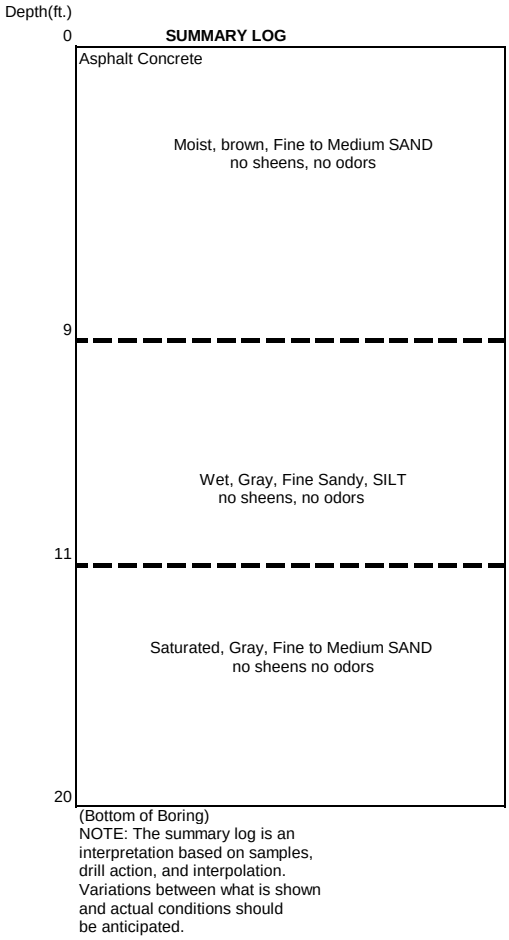
Location: North of Lean-to
Elevation (Ft.): AG grade
Date Completed: 8/31/09
Weather: Cloudy 65F
Hammer Type: Direct push

Ground Surface: Asphalt Concrete

Sampler Type: 2" Macro w/ acrylic liner

Spl.No.	Type sample saved	Drill Action	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
		Smooth	0-5	60		2" AC, 4" crushed rock pavement section
UNI-P3-4	Grab				0920	0.5-1.5 Moist, bwn, silty, F_M SAND
						1.5-5 Moist, bwn, F-M SAND, ns, no
	3.5-4.5'					
			5-10	48		5-9 As above
UNI-P3-9	Grab				0925	9-10 Wet, gry, silty, F SAND, w/scattered organics, ns, no
	8.5-9.5'					
			10-15	48		10-11 Wet, gry, F sandy, SILT, ns, no
UNI-P3-14	Grab				0930	11-15 Sat, gry, F SAND, ns, no
	13.5-14.5					
			15-20	60		15-20 Sat, gry, F-M SAND, ns, no
UNI-P3-19	Grab			Piston	0935	
	18.5-19.5					

Completed boring backfilled with granular bentonite
ns - No sheen; no - No odor; F - Fine; F_M - Fine to medium



NOTE: The summary log is an interpretation based on samples, drill action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

Logs for Borings NWAW-P1 to NWAW-P16

Dalton, Olmsted & Fuglevand, Inc.
October 2008

TABLE A1 - Coordinate Locations - Direct Push Probes (October 2008)

Probe Designation	Date Position Recorded	Time Position Recorded	Northing (ft)	Easting (ft)	Latitude	Longitude
P-1	11/5/2008	03:34:29pm	190107.6	1280119.2	47.51181348	-122.2913255
P-2	11/5/2008	03:46:26pm	190052.2	1280222.3	47.51166705	-122.2909044
P-3	11/5/2008	03:40:54pm	189960.4	1280106.1	47.51140949	-122.2913675
P-4	11/5/2008	03:25:34pm	189641.4	1280237.8	47.51054179	-122.2908101
P-5	11/5/2008	03:16:38pm	189740.0	1280113.3	47.51080572	-122.2913214
P-6	11/5/2008	03:21:34pm	189577.8	1280121.3	47.51036141	-122.2912766
P-7	11/5/2008	02:56:42pm	190066.2	1279724.3	47.51167951	-122.2929201
P-8	11/5/2008	02:44:50pm	189756.5	1279824.3	47.51083592	-122.2924916
P-9	11/5/2008	03:53:35pm	189678.7	1279855.6	47.51062438	-122.2923593
P-10	11/5/2008	04:02:04pm	189648.0	1279977.6	47.51054638	-122.2918631
P-11	11/5/2008	03:58:39pm	189591.1	1279891.4	47.51038609	-122.2922077
P-12	11/5/2008	03:03:13pm	190065.4	1279982.8	47.51169084	-122.2918742
P-13	11/5/2008	03:07:16pm	189809.2	1279994.9	47.5109893	-122.2918056
P-14	11/5/2008	02:49:33pm	189886.0	1279777.5	47.51118855	-122.2926912
P-15	11/5/2008	03:30:22pm	189929.8	1280219.7	47.51133141	-122.2909053
P-16	11/5/2008	02:53:06pm	189990.6	1279791.4	47.51147591	-122.292643

Horizontal Coordinates in U.S. State Plane 1983, Washington North 4601, NAD 1983 (Conus)

DIRECT PUSH PROBE NO. NWAW-P1 - DESCRIPTION OF SAMPLES, TESTS, AND INSTALLATION

Field Rep: T. Olmsted
Drilling Co.: Cascade Testing
Driller: Frank Scott
Drill Type: AMS 9630 Direct Push Probe
Size/Type Casing: E-Rod

Location: See Plan
Elevation
Date Completed: 10/27/2008
Weather: Clear and Cool

PROBE NWAW-P1

Spl.No.	Type	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
	Direct Push	0-4	36	0815	0-1.5' Red and brown, silty, fine to coarse sandy GRAVEL - brick and concrete fragments 1.5-4' Gray, fine sandy, clayey SILT
	Direct Push	4-8	36	0830	4-5' As above 5-8' Gray, silty, fine to medium SAND - Wet
	Direct Push	8-12	36	0835	8-12' As above
NWAW-P1	*WATER*	*screen 8-12*	-	*0915*	*Analysis: NWTPH-G/BTEX; NWTPH-D extended; Metals Pb, Ag, Cd*

Depth(ft.) **SUMMARY LOG**

0
Red and brown, silty, fine to coarse sandy GRAVEL (brick and concrete fragments)
1.5
Gray, fine sandy, clayey SILT
5
Gray, very silty to silty, fine to medium SAND
wet below about 6 feet
12
(Bottom of Probe)

Completed probe backfilled with granular bentonite
NOTE: The summary log is an interpretation based on samples, probe action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

NOTE: 4-foot temporary stainless screen set @ 12 feet below ground surface following drilling. Water collected through 1/4" diameter polyethylene tubing using a peristaltic pump

DIRECT PUSH PROBE NO. NWAW-P2 - DESCRIPTION OF SAMPLES, TESTS, AND INSTALLATION

Field Rep: T. Olmsted | Location: See Plan
Drilling Co.: Cascade Testing | Elevation
Driller: Frank Scott | Date Completed: 10/27/2008
Drill Type: AMS 9630 Direct Push Probe | Weather: Clear and Cool
Size/Type Casing: E-Rod

PROBE NWAW-P2

Spl.No.	Type	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
	Direct Push	0-4	36	0950	0-3' Red and brown, silty, fine to coarse sandy GRAVEL - brick and concrete fragments 3-4' Gray, fine sandy, clayey SILT
	Direct Push	4-8	36	0955	4-7' As above 7-8' Gray, silty, fine SAND - Wet
	Direct Push	8-12	36	1000	8-12' As above
NWAW-P2	*WATER*	*screen 8-12*	-	*1015*	*Analysis: NWTPH-G/BTEX; NWTPH-D ext.; Dissolved metals Pb, Ag, Cd*

Depth(ft.) **SUMMARY LOG**

0
Red and brown, silty, fine to coarse sandy GRAVEL (brick and concrete fragments)
3
Gray, fine sandy, clayey SILT
7
Gray, silty, fine to medium SAND
wet below about 6 feet
12
(Bottom of Probe)

Completed probe backfilled with granular bentonite

NOTE: The summary log is an interpretation based on samples, probe action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

NOTE: 4-foot temporary stainless screen set @ 12 feet below ground surface following drilling. Water collected through 1/4" diameter polyethylene tubing using a peristaltic pump

DIRECT PUSH PROBE NO. NWAW-P3 - DESCRIPTION OF SAMPLES, TESTS, AND INSTALLATION

Field Rep: T. Olmsted | Location: See Plan
Drilling Co.: Cascade Testing | Elevation | **PROBE NWAW-P3**
Driller: Frank Scott | Date Completed: 10/27/2008
Drill Type: AMS 9630 Direct Push Probe | Weather: Clear and Cool
Size/Type Casing: E-Rod

Spl.No.	Type	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
	Direct Push	0-4	48	1040	0-2' Red and brown, silty, fine to coarse sandy GRAVEL - brick and concrete fragments 2-3' Gray, brown, silty, fine SAND 3-4' Gray, fine sandy, clayey SILT
	Direct Push	4-8	48	1045	4-7' As above 7-8' Gray, silty, fine SAND - Wet
	Direct Push	8-12	48	1055	8-12' As above
NWAW-P3	*WATER*	*screen 8-12*	-	*1115*	*Analysis: NWTPH-G/BTEX; NWTPH-D ext.; Dissolved metals Pb, Ag, Cd*

Depth(ft.) **SUMMARY LOG**

0
Red and brown, silty, fine to coarse sandy GRAVEL (brick and concrete fragments)
2
Gray, brown, silty, fine SAND
3
Gray, fine sandy, clayey SILT
7
Gray, silty, fine to medium SAND
wet below about 6 feet
12
(Bottom of Probe)

Completed probe backfilled with granular bentonite

NOTE: The summary log is an interpretation based on samples, probe action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

NOTE: 4-foot temporary stainless screen set @ 12 feet below ground surface following drilling. Water collected through 1/4" diameter polyethylene tubing using a peristaltic pump

DIRECT PUSH PROBE NO. NWAW-P4 - DESCRIPTION OF SAMPLES, TESTS, AND INSTALLATION

Field Rep: T. Olmsted | Location: See Plan
Drilling Co.: Cascade Testing | Elevation | **PROBE NWAW-P4**
Driller: Frank Scott | Date Completed: 10/27/2008
Drill Type: AMS 9630 Direct Push Probe | Weather: Clear and Cool
Size/Type Casing: E-Rod

Spl.No.	Type	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
	Direct Push	0-4	48	1140	0-3' Red and brown, silty, fine to coarse sandy GRAVEL - brick and concrete fragments 3-4' Dark brown, fine sandy SILT with some decayed grass
	Direct Push	4-8	36	1145	4-7' Gray, silty, very fine SAND/fine sandy, SILT - Wet 7-8' Gray, silty, very fine SAND with fine sandy SILT layers - Wet
	Direct Push	8-12	48	1200	8-12' As above
NWAW-P4	*WATER*	*screen 8-12*	-	*1215*	*Analysis: NWTPH-G/BTEX; NWTPH-D ext.; Dissolved metals Pb, Ag, Cd*

Depth(ft.) **SUMMARY LOG**

0
Red and brown, silty, fine to coarse sandy GRAVEL (brick and concrete fragments)
3
Dark brown, fine sandy SILT with some decayed grass
4
Gray, silty, very fine SAND/fine sandy SILT - Wet
7
Gray, silty, very fine SAND with fine sandy SILT layers - Wet
12
(Bottom of Probe)

Completed probe backfilled with granular bentonite

NOTE: The summary log is an interpretation based on samples, probe action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

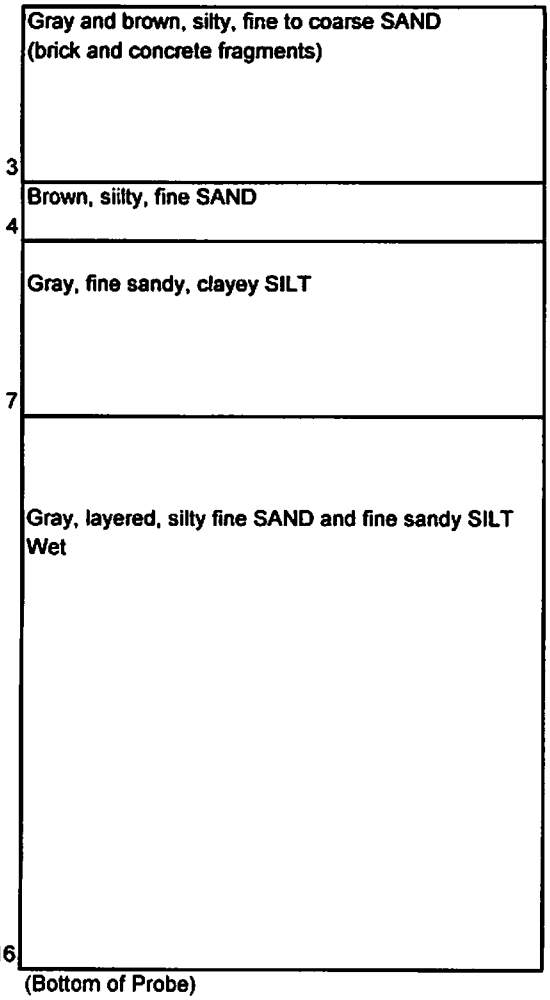
NOTE: 4-foot temporary stainless screen set @ 12 feet below ground surface following drilling. Water collected through 1/4" diameter polyethylene tubing using a peristaltic pump

DIRECT PUSH PROBE NO. NWAW-P5 - DESCRIPTION OF SAMPLES, TESTS, AND INSTALLATION

Field Rep: T. Olmsted | Location: See Plan
Drilling Co.: Cascade Testing | Elevation | **PROBE NWAW-P5**
Driller: Frank Scott | Date Completed: 10/27/2008
Drill Type: AMS 9630 Direct Push Probe | Weather: Clear and Cool
Size/Type Casing: E-Rod

Spl.No.	Type	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
	Direct Push	0-4	36	1245	0-3' Gray and brown, silty, fine to coarse SAND with brick and concrete fragments 3-4' Brown, silty, fine SAND
	Direct Push	4-8	48	1250	4-7' Gray, fine sandy, clayey SILT 7-8' Gray, silty, fine SAND - Wet
	Direct Push	8-12	48	1300	8-12' Gray layered silty very fine SAND and fine sandy SILT
	Direct Push	12-16	6	1305	12-16' disturbed - wet slurry of silty SAND
NWAW-P5	*WATER*	*screen 12-16*	-	*1315*	*Analysis: NWTPH-G/BTEX; NWTPH-D ext.; Dissolved metals Pb, Ag, Cd*

Depth(ft.) **SUMMARY LOG**



(Bottom of Probe)
Completed probe backfilled with granular bentonite
NOTE: The summary log is an interpretation based on samples, probe action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

NOTE: 4-foot temporary stainless screen set @ 16 feet below ground surface following drilling. Water collected through 1/4" diameter polyethylene tubing using a peristaltic pump

DIRECT PUSH PROBE NO. NWAW-P6 - DESCRIPTION OF SAMPLES, TESTS, AND INSTALLATION

Field Rep: T. Olmsted | Location: See Plan
Drilling Co.: Cascade Testing | Elevation | **PROBE NWAW-P6**
Driller: Frank Scott | Date Completed: 10/27/2008
Drill Type: AMS 9630 Direct Push Probe | Weather: Clear and Cool
Size/Type Casing: E-Rod

Spl.No.	Type	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
	Direct Push	0-4	36	1350	0-1' Brown and red, fine to coarse sandy GRAVEL with brick and concrete fragments 1-4' Gray-brown, silty, fine to medium SAND with red fragments
	Direct Push	4-8	48	1355	4-5' Same as above 5-8' Gray brown, fine sandy, clayey SILT - moist
	Direct Push	8-12	48	1400	8-10' Gray clayey SILT 10-12' Dark gray, fine to medium SAND, wet
	Direct Push	12-16	48	1405	12-16' Same as above
NWAW-P6	*WATER*	*screen 12-16*	-	*1415*	*Analysis: NWTPH-G/BTEX; NWTPH-D ext.; Dissolved metals Pb, Ag, Cd*

Depth(ft.) **SUMMARY LOG**

0
Gray and brown, silty, fine to coarse SAND (brick and concrete fragments)
3
Brown, siilty, fine SAND
4
Gray, fine sandy, clayey SILT
7
Gray, layered, silty fine SAND and fine sandy SILT
Wet
16
(Bottom of Probe)

Completed probe backfilled with granular bentonite

NOTE: The summary log is an interpretation based on samples, probe action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

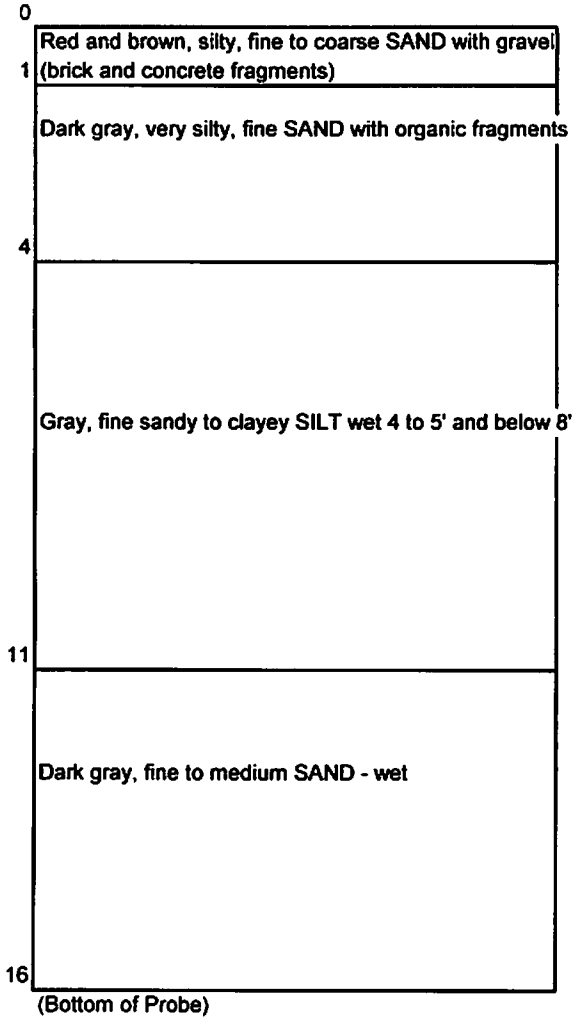
NOTE: 4-foot temporary stainless screen set @ 16 feet below ground surface following drilling. Water collected through 1/4" diameter polyethylene tubing using a peristaltic pump

DIRECT PUSH PROBE NO. NWAW-P7 - DESCRIPTION OF SAMPLES, TESTS, AND INSTALLATION

Field Rep: T. Olmsted | Location: See Plan
Drilling Co.: Cascade Testing | Elevation | **PROBE NWAW-P7**
Driller: Frank Scott | Date Completed: 10/27/2008
Drill Type: AMS 9630 Direct Push Probe | Weather: Clear and Cool
Size/Type Casing: E-Rod

Spl.No.	Type	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
	Direct Push	0-4	36	1450	0-1' Red and brown, silty fine to coarse SAND with gravel - brick and concrete fragments 1-4' Dark gray, very silty fine SAND with organic fragments
	Direct Push	4-8	48	1455	4-8' Gray fine sandy to clayey SILT - upper 1- wet
	Direct Push	8-12	48	1500	8-11' Same as above except wet 11-12' Dark gray, silty, fine to medium SAND wet
	Direct Push	12-16	48	1505	12-16' Same as above
NWAW-P7	*WATER*	*screen 12-16*	-	*1515*	*Analysis: NWTPH-G/BTEX; NWTPH-D ext.; Dissolved metals Pb, Ag, Cd*

Depth(ft.) **SUMMARY LOG**



Completed probe backfilled with granular bentonite
NOTE: The summary log is an interpretation based on samples, probe action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

NOTE: 4-foot temporary stainless screen set @ 16 feet below ground surface following drilling. Water collected through 1/4" diameter polyethylene tubing using a peristaltic pump

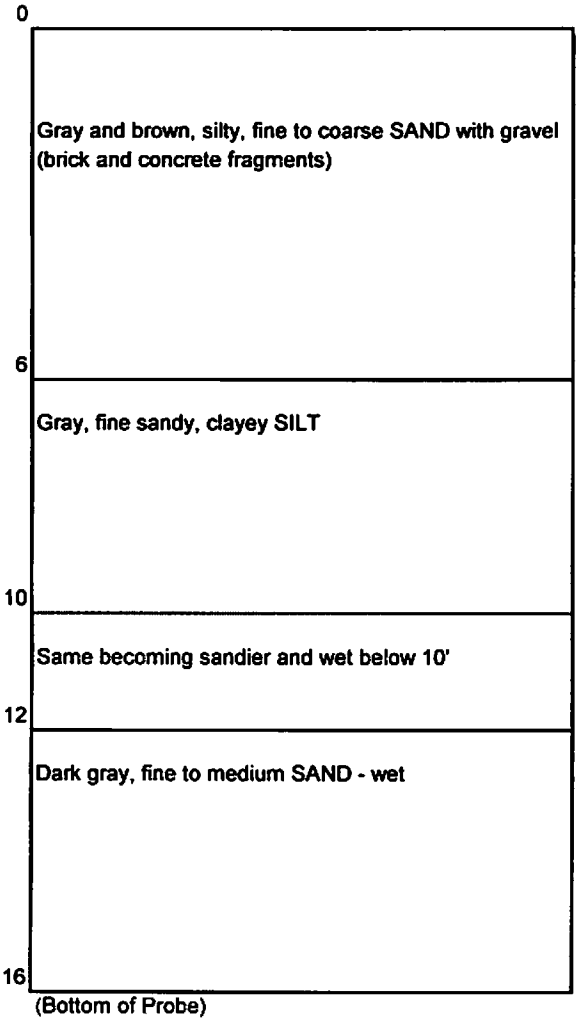
DIRECT PUSH PROBE NO. NWAW-P8 - DESCRIPTION OF SAMPLES, TESTS, AND INSTALLATION

Field Rep: T. Olmsted | Location: See Plan
Drilling Co.: Cascade Testing | Elevation
Driller: Frank Scott | Date Completed: 10/27/2008
Drill Type: AMS 9630 Direct Push Probe | Weather: Clear and Cool
Size/Type Casing: E-Rod

PROBE NWAW-P8

Spl.No.	Type	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
	Direct Push	0-4	36	1545	0-4' Gray and brown, silty fine to coarse SAND with gravel - brick and concrete fragments
	Direct Push	4-8	36	1550	4-6' Same as above with pea gravel 6-8' Gray, fine sandy clayey SILT
	Direct Push	8-12	48	1555	8-12' Same as above except grading to sandier and wet below 10'
	Direct Push	12-16	48	1600	12-16' Dakr gray, fine to medium SAND
NWAW-P8	*WATER*	*screen 12-16*	-	*1615*	*Analysis: NWTPH-G/BTEX; NWTPH-D ext.; Dissolved metals Pb, Ag, Cd*

Depth(ft.) **SUMMARY LOG**



(Bottom of Probe)
Completed probe backfilled with granular bentonite
NOTE: The summary log is an interpretation based on samples, probe action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

NOTE: 4-foot temporary stainless screen set @ 16 feet below ground surface following drilling. Water collected through 1/4" diameter polyethylene tubing using a peristaltic pump

Dalton, Olmsted & Fuglevand, Inc.
Environmental Consultants

DIRECT PUSH PROBE NO. NWAW-P9 - DESCRIPTION OF SAMPLES, TESTS, AND INSTALLATION

Field Rep: T. Olmsted | Location: See Plan
Drilling Co.: Cascade Testing | Elevation | **PROBE NWAW-P9**
Driller: Frank Scott | Date Completed: 10/28/2008
Drill Type: AMS 9630 Direct Push Probe | Weather: Foggy and Cool
Size/Type Casing: E-Rod

Spl.No.	Type	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
	Direct Push	0-4	48	1200	0-0.4' Asphalt 0.4-0.8' Pea Gravel 0.8-1.5' Gravelly silty fine to coarse SAND 1.5-4' Brown, Silty, fine to medium SAND
	Direct Push	4-8	48	1205	4-6' As above 6-8' Gray, clayey SILT with organics
	Direct Push	8-12	48	1210	8-12' As above becoming sandy
	Direct Push	12-16	48	1215	12-16' Dark gray, silty, fine to medium SAND - wet
NWAW-P9	*WATER*	*screen 12-16*	-	*1230*	*Analysis: NWTPH-G/BTEX; NWTPH-D ext.; Dissolved metals Pb, Ag, Cd*

Depth(ft.) **SUMMARY LOG**

0
5" Asphalt
0.8 5" Pea Gravel
1.5 Gravelly fine to coarse silty SAND
Brown, silty, fine to medium SAND
6
Gray, clayey SILT becoming sandy below about 10 feet
12
Dark gray, silty fine to medium SAND, wet
16
(Bottom of Probe)

Completed probe backfilled with granular bentonite

NOTE: The summary log is an interpretation based on samples, probe action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

NOTE: 4-foot temporary stainless screen set @ 16 feet below ground surface following drilling. Water collected through 1/4" diameter polyethylene tubing using a peristaltic pump

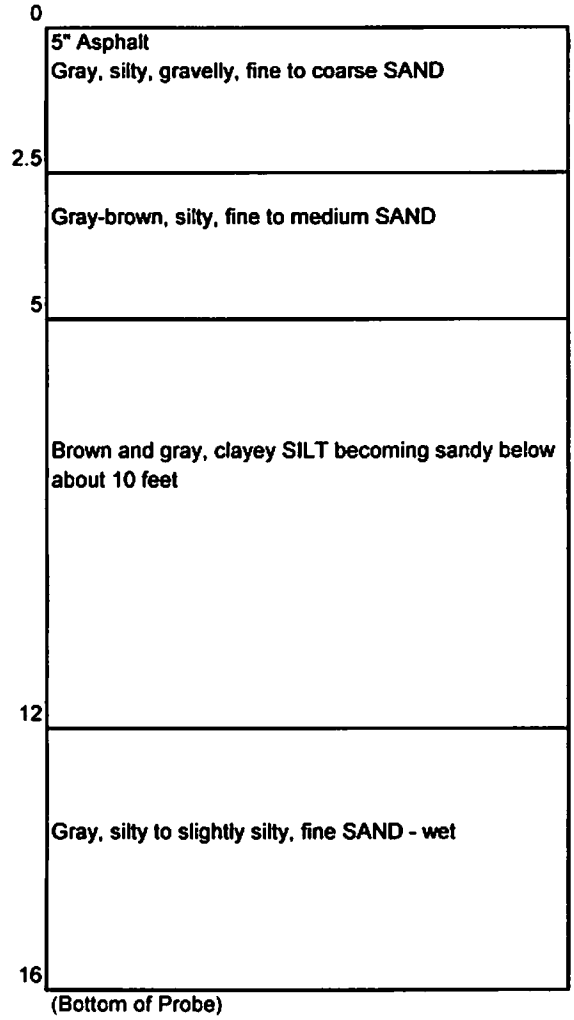
DIRECT PUSH PROBE NO. NWAW-P10 - DESCRIPTION OF SAMPLES, TESTS, AND INSTALLATION

Field Rep: T. Olmsted | Location: See Plan
Drilling Co.: Cascade Testing | Elevation
Driller: Frank Scott | Date Completed: 10/28/2008
Drill Type: AMS 9630 Direct Push Probe | Weather: Clear and Cool
Size/Type Casing: E-Rod

PROBE NWAW-P10

Spl.No.	Type	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
	Direct Push	0-4	36	1330	0-0.4' Asphalt 0.4-2.5' Gravelly silty fine to coarse SAND 2.5-4' Gray-brown, silty, fine to medium SAND
	Direct Push	4-8	48	1335	4-5' As above 5-8' Gray and brown, clayey SILT wet
	Direct Push	8-12	48	1340	8-12' As above becoming sandy - wet
	Direct Push	12-16	48	1345	12-16' Gray, silty to slightly silty, fine SAND - wet
NWAW-P10	*WATER*	*screen 12-16*	-	*1400*	*Analysis: NWTPH-G/BTEX; NWTPH-D ext.; Dissolved metals Pb, Ag, Cd*

Depth(ft.) **SUMMARY LOG**



(Bottom of Probe)

Completed probe backfilled with granular bentonite

NOTE: The summary log is an interpretation based on samples, probe action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

NOTE: 4-foot temporary stainless screen set @ 16 feet below ground surface following drilling. Water collected through 1/4" diameter polyethylene tubing using a peristaltic pump

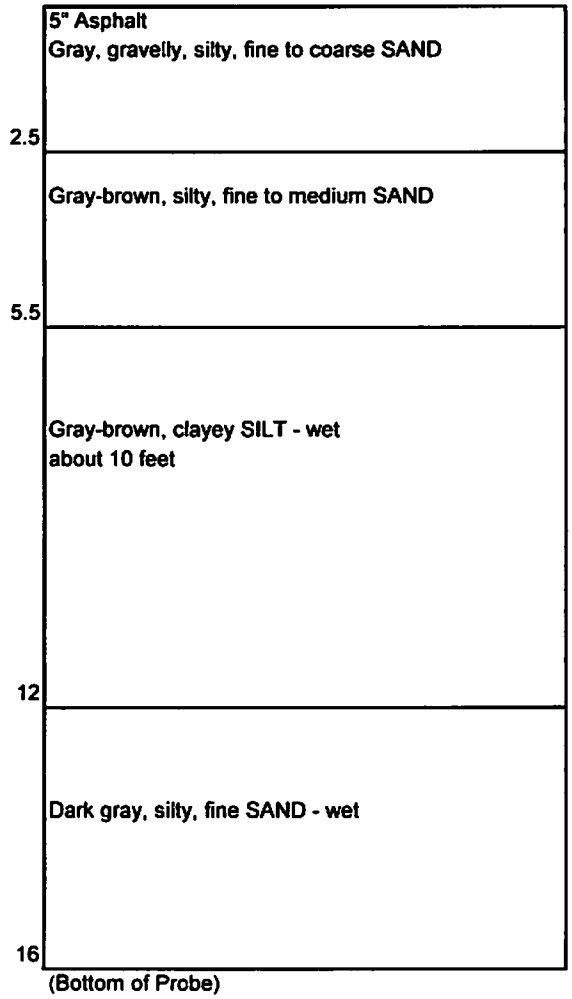
DIRECT PUSH PROBE NO. NWAW-P11 - DESCRIPTION OF SAMPLES, TESTS, AND INSTALLATION

Field Rep: T. Olmsted | Location: See Plan
Drilling Co.: Cascade Testing | Elevation
Driller: Frank Scott | Date Completed: 10/28/2008
Drill Type: AMS 9630 Direct Push Probe | Weather: Clear and Cool
Size/Type Casing: E-Rod

PROBE NWAW-P11

Spl.No.	Type	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
	Direct Push	0-4	36	1420	0-0.4' Asphalt 0.4-2.5' Gray, gravelly silty fine to coarse SAND 2.5-4' Brown, silty, fine to medium SAND
	Direct Push	4-8	48	1425	4-5.5' As above 5.5-8' Gray-brown, clayey SILT wet
	Direct Push	8-12	48	1430	8-12' As above
	Direct Push	12-16	48	1435	12-16' Dark gray, silty, fine SAND - wet
NWAW-P11	*WATER*	*screen 12-16*	-	*1450*	*Analysis: NWTPH-G/BTEX; NWTPH-D ext.; Dissolved metals Pb, Ag, Cd*

Depth(ft.) **SUMMARY LOG**



(Bottom of Probe)
Completed probe backfilled with granular bentonite
NOTE: The summary log is an interpretation based on samples, probe action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

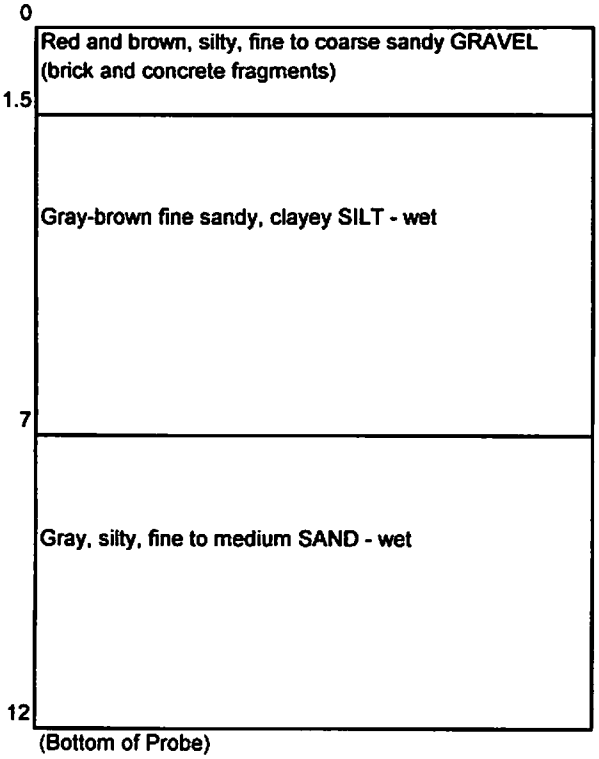
NOTE: 4-foot temporary stainless screen set @ 16 feet below ground surface following drilling. Water collected through 1/4" diameter polyethylene tubing using a peristaltic pump

DIRECT PUSH PROBE NO. NWAW-P12 - DESCRIPTION OF SAMPLES, TESTS, AND INSTALLATION

Field Rep: T. Olmsted | Location: See Plan
Drilling Co.: Cascade Testing | Elevation | **PROBE NWAW-P12**
Driller: Frank Scott | Date Completed: 10/27/2008
Drill Type: AMS 9630 Direct Push Probe | Weather: Clear and Cool
Size/Type Casing: E-Rod

Spl.No.	Type	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
	Direct Push	0-4	36	1630	0-1.5' Red and brown, silty, fine to coarse sandy GRAVEL - brick and concrete fragments 1.5-4' Gray-brown, fine sandy, clayey SILT
	Direct Push	4-8	48	1635	4-7' As above 7-8' Gray, silty, fine SAND - Wet
	Direct Push	8-12	36	1640	8-12' As above
NWAW-P12	*WATER*	*screen 8-12*	-	*1645*	*Analysis: NWTPH-G/BTEX; NWTPH-D ext.; Dissolved metals Pb, Ag, Cd*

Depth(ft.) **SUMMARY LOG**



(Bottom of Probe)
Completed probe backfilled with granular bentonite
NOTE: The summary log is an interpretation based on samples, probe action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

NOTE: 4-foot temporary stainless screen set @ 12 feet below ground surface following drilling. Water collected through 1/4" diameter polyethylene tubing using a peristaltic pump

DIRECT PUSH PROBE NO. NWAW-P13 - DESCRIPTION OF SAMPLES, TESTS, AND INSTALLATION

Field Rep: T. Olmsted | Location: See Plan
Drilling Co.: Cascade Testing | Elevation
Driller: Frank Scott | Date Completed: 10/28/2008
Drill Type: AMS 9630 Direct Push Probe | Weather: Foggy and Cool
Size/Type Casing: E-Rod

PROBE NWAW-P13

Spl.No.	Type	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
	Direct Push	0-4	48	0800	0-1' Red and gray, silty fine to coarse SAND with brick and concrete fragments 1-3' Brown, silty, fine to medium SAND 3-4' Brown, clayey SILIT
	Direct Push	4-8	6	0805	4-8' As above
	Direct Push	8-12	48	0810	8-12' As above
	Direct Push	12-16	48	0815	12-14' As above 14-16' Dark gray, fine to medium SAND
NWAW-P13	*WATER*	*screen 12-16*	-	*0830*	*Analysis: NWTPH-G/BTEX; NWTPH-D ext.; Dissolved metals Pb, Ag, Cd*

Depth(ft.) **SUMMARY LOG**

0
Red and gray, silty, fine to coarse SAND
1 (brick and concrete fragments)
Brown, silty, fine to medium SAND
3
Brown and gray, fine sandy, clayey SILT
14
Dark gray, fine to medium SAND, wet
16
(Bottom of Probe)

Completed probe backfilled with granular bentonite

NOTE: The summary log is an interpretation based on samples, probe action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

NOTE: 4-foot temporary stainless screen set @ 16 feet below ground surface following drilling. Water collected through 1/4" diameter polyethylene tubing using a peristaltic pump

DIRECT PUSH PROBE NO. NWAW-P14 - DESCRIPTION OF SAMPLES, TESTS, AND INSTALLATION

Field Rep: T. Olmsted | Location: See Plan
Drilling Co.: Cascade Testing | Elevation | **PROBE NWAW-P14**
Driller: Frank Scott | Date Completed: 10/28/2008
Drill Type: AMS 9630 Direct Push Probe | Weather: Foggy and Cool
Size/Type Casing: E-Rod

Spl.No.	Type	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
	Direct Push	0-4	48	0900	0-1' Red and gray, silty fine to coarse SAND with brick and concrete fragments 1-4' Brown, silty, fine to medium SAND
	Direct Push	4-8	48	0905	4-5' As above 5-8' Gray, clayey SILT
	Direct Push	8-12	48	0910	8-12' As above grading to fine sandy SILT
	Direct Push	12-16	48	0915	12-13' As above 13-16' Dark gray, silty, fine to medium SAND - wet
NWAW-P14	*WATER*	*screen 12-16*	-	*0930*	*Analysis: NWTPH-G/BTEX; NWTPH-D ext.; Dissolved metals Pb, Ag, Cd*

Depth(ft.) **SUMMARY LOG**

0
Red and gray, silty, fine to coarse SAND
1 (brick and concrete fragments)

Brown, silty, fine to medium SAND

5

Gray, clayey SILT grading to a fine sandy silt below about 10 feet

13

Dark gray, silty fine to medium SAND, wet

16
(Bottom of Probe)

Completed probe backfilled with granular bentonite

NOTE: The summary log is an interpretation based on samples, probe action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

NOTE: 4-foot temporary stainless screen set @ 16 feet below ground surface following drilling. Water collected through 1/4" diameter polyethylene tubing using a peristaltic pump

Dalton, Olmsted & Fuglevand, Inc.
Environmental Consultants

NW Auto Wrecking Site
Seattle/Tukwila, Washington

DIRECT PUSH PROBE NO. NWAW-P15 - DESCRIPTION OF SAMPLES, TESTS, AND INSTALLATION

Field Rep: T. Olmsted | Location: See Plan
Drilling Co.: Cascade Testing | Elevation | **PROBE NWAW-P15**
Driller: Frank Scott | Date Completed: 10/28/2008
Drill Type: AMS 9630 Direct Push Probe | Weather: Foggy and Cool
Size/Type Casing: E-Rod

Spl.No.	Type	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
	Direct Push	0-4	36	1000	0-1' Red and brown, silty, fine to coarse sandy GRAVEL - brick and concrete fragments 1-3' Brown, silty, fine to medium SAND 3-4' Gray clayey SILT
	Direct Push	4-8	48	1005	4-6.5' As above 6.5-8' Dark gray, silty, fine to medium SAND
	Direct Push	8-12	48	1010	8-12' As above
NWAW-P15	*WATER*	*screen 8-12*	-	*1020*	*Analysis: NWTPH-G/BTEX; NWTPH-D ext.; Dissolved metals Pb, Ag, Cd*

Depth(ft.) **SUMMARY LOG**

0
Red and brown, silty, fine to coarse sandy GRAVEL (brick and concrete fragments)
1
Brown, silty, fine to medium SAND
3
Gray clayey SILT
6.5
Dark gray, silty, fine to medium SAND - wet
12
(Bottom of Probe)

Completed probe backfilled with granular bentonite
NOTE: The summary log is an interpretation based on samples, probe action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

NOTE: 4-foot temporary stainless screen set @ 12 feet below ground surface following drilling. Water collected through 1/4" diameter polyethylene tubing using a peristaltic pump

Dalton, Olmsted & Fuglevand, Inc.
Environmental Consultants

NW Auto Wrecking Site
Seattle/Tukwila, Washington

DIRECT PUSH PROBE NO. NWAW-P16 - DESCRIPTION OF SAMPLES, TESTS, AND INSTALLATION

Field Rep: T. Olmsted | Location: See Plan
Drilling Co.: Cascade Testing | Elevation
Driller: Frank Scott | Date Completed: 10/28/2008
Drill Type: AMS 9630 Direct Push Probe | Weather: Foggy and Cool
Size/Type Casing: E-Rod

PROBE NWAW-P16

Spl.No.	Type	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
	Direct Push	0-4	36	1050	0-3' Gray, silty, gravelly fine to coarse SAND - brick and conc. frags 3-4' Gray, silty SAND
	Direct Push	4-8	48	1055	4-8' Gray clayey SILT - wet
	Direct Push	8-12	48	1100	8-10' as above 10-12' Gray, silty fine SAND - wet
NWAW-P16	*WATER*	*screen 8-12*	-	*1120*	*Analysis: NWTPH-G/BTEX; NWTPH-D ext.; Dissolved metals Pb, Ag, Cd*

Depth(ft.) **SUMMARY LOG**

0
Red and brown, silty,gravelly, fine to coarse SAND (brick and concrete fragments)
3
Gray, silty, fine to medium SAND
4
Gray clayey SILT - wet
10
Gray, silty, fine SAND - wet
12
(Bottom of Probe)

Completed probe backfilled with granular bentonite

NOTE: The summary log is an interpretation based on samples, probe action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

NOTE: 4-foot temporary stainless screen set @ 13 feet below ground surface following drilling. Water collected through 1/4" diameter polyethylene tubing using a peristaltic pump

Logs for Borings P-DOF-2 and EM1

Dalton, Olmsted & Fuglevand, Inc.
February and April 2007

Probe Log P-DOF-2

Dalton, Olmsted Fuglevand, Inc.

BORING - DESCRIPTION OF SAMPLES & DATA Location P-DOF-2

Field Rep: DG Cooper
Drilling Co.: Cascade
Driller: Kasey
Drill Type: Oedrich D-25
Size/Type Casing: E-rod
Location: SW of wrecking yard
Elevation (Ft.):
Date Completed: 2/27/07
Weather: Cloudy 50F
Hammer Type: Direct push
Ground Surface: Asphalt
Sampler Type: 4' long x 1-1/4" dia. Core retained in an acrylic sleeve

Spl.No.	Type sample saved	Drill Action	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
			0-4	48		4" asphalt concrete
						0.2-2.0' M dense, damp, mot gry-bwn, sandy, GRAVEL, w/ some silt
						2.0-4' Loose, damp bwn, F SAND, w/ trace silt
P-DOF-2-8	grab		4-8	48	0920	4-6' as above
	7.5-8.0					6-8' Soft, wet, bwn, SILT, w/ trace organics
			8-12	48		8-11' as above
						11-12' Loose, sat, gry,F-M SAND
			12-16	48		12-16' as above

LABORATORY SAMPLES: Water:
P-DOF-2 for HCID, VOCs

Depth(ft.)

0 **SUMMARY LOG**

4" asphalt concrete

M dense, damp, mot gry-bwn, sandy, GRAVEL, w/ some silt

2

Loose, damp bwn, F SAND, w/ trace silt

6

Soft, wet, bwn, SILT, w/ trace organics

11

Loose, sat, gry, F-M SAND

16

(Bottom of Boring)

NOTE: The summary log is an interpretation based on samples, drill action, and interpolation. Variations between what is shown and actual conditions should be anticipated.

Notes: Temporary Screen set @ 16' below ground surface consisting of 3/4" diameter PVC following drilling. Water sample collected using peristaltic pump through 1/4" diameter polyethylene tubing with intake @ 12' bgs.

Completed boring backfilled with granular bentonite and patched with asphalt cold-patch.

Dalton, Olmsted & Fuglevand, Inc.
Environmental Consultants

Associated Grocers

BORING - DESCRIPTION OF SAMPLES & DATA Location **EM1**

Field Rep: DG Cooper
Drilling Co.: Cascade
Driller: Kasey
Drill Type: Dedrich D-25
Size/Type Casing: E-rod

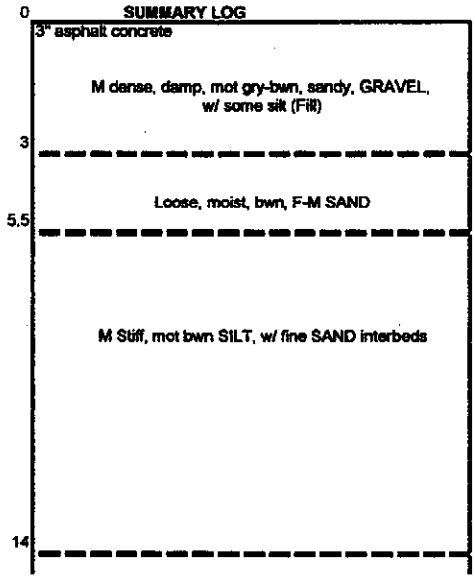
Location: 15' east of property line @ E Marginal Way, 20' south of 60" storm sewer
Elevation (Ft.): Ground Surface: Asphalt
Date Completed: 4/16/07
Weather: Cloudy 50F
Hammer Type: Direct push Sampler Type: 4' long x 1-1/4" dia. Core retained in an acrylic sleeve

Spl.No.	Type sample saved	Drill Action	Spl Depth (Ft.) From - To	Spl length inches	Time	Sample Description
			0-4	36		3" asphalt concrete
						0.4-3.0' Dense, damp, mot gry-bwn, sandy, GRAVEL, w/ some silt
						3.0-4.0' Loose, moist, bwn, F-M SAND
			4-8	48		4-5.5' as above
						5-8.0' M Stiff, mot bwn, SILT, w/ F sand interbeds
EM1-10	grab		8-12	48	0900	8-12.0' as above
	10-11'					Saturated @ 10'
			12-16	48		12-13' as above
						13-16' soft, wet, gry organic, SILT, grding to silty, F Sand

LABORATORY SAMPLES:

Water:
EM1 for NWTPH-G/BTEX, NWTPH-DX
Soil:
EM1-10 for NWTPH-G/BTEX, NWTPH-DX

Depth(ft.)



Notes: 4' hydropunch screen set @ 16' below ground surface following drilling.
Water sample collected using peristaltic pump through 1/4" diameter polyethylene tubing with intake @ 12' bgs.

Completed boring backfilled with granular bentonite and patched with asphalt cold-patch.

FIGURE 3

Logs for Borings P01 to P09 and Monitoring Wells MW01 to MW05

Sound Environmental Strategies, Inc.
January 2007

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	ESN NW / Marty
Drilling Method:	Geoprobe
Location:	Tank cavity
Surface Condition:	Asphalt
Total Depth:	10
First GW Depth:	7

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt		
1								Moist, fine- to coarse-grained silty Sand, olive-brown, with fine to coarse subrounded to subangular gravel. No odor, no discoloration. (Fill)		
2										
3		0.0	56		P01-04		SM		Mst	
4										
5										
6		0.0	63		P01-07				Wet ▽	
7							GM	Moist to wet (at 7 feet bgs), fine, subangular to angular silty Gravel (pea-gravel), gray, with fine- to coarse-grained sand (tank cavity pea-gravel). No odor, no discoloration.		
8										
9								- Drove the pre-packed screen to 10 feet bgs.		
10										
11								Boring terminated at 8 feet, drilled to 10 feet bgs without sampling to install the well on 1/10/2007.		
12								Groundwater was encountered at 7 feet bgs during drilling.		
13								Boring was completed 1-inch diameter monitoring well MW01 installed as illustrated above-right.		
14								Monitoring well screened from 5 feet to 10 feet bgs.		
15								Flushmount surface completion.		
16										
17										
18										
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Northwest Auto Wrecking
10230 East Marginal Way South
Tukwila, Washington

Date Started: 1/10/2007
Date Finished: 1/10/2007
Logged By: AIS
Chk By: AIS
SES Project No.: 0563-001-01
File ID.:

BORING LOG
P01/MW01

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	ESN NW / Marty
Drilling Method:	Geoprobe
Location:	Behind the building
Surface Condition:	Asphalt
Total Depth:	12
First GW Depth:	9.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt		
1							SM	Moist, fine- to coarse-grained silty Sand, brown, some fine to coarse gravel (Fill).		
2										
3			73				SP	Moist, fine- to medium-grained (uniform) Sand, brown. No odor, no discoloration.		
4		0.0			P02-04		SM	Moist, fine-grained silty Sand, occasional medium-grained sand, olive-brown, FeO2 staining.	Mst	
5								Moist, soft Silt, gray-brown, with clay, occasional fine silty sand interbeds, FeO2 staining (decayed fine organics), mottling, low plasticy. No sheen, no odor, no discoloration.		
6							ML			
7			71							
8		0.0			P02-08				Mst	
9					P02-09		SM	Moist, fine- to medium-grained, silty Sand, brown, with clayey silt interbeds (<1" thick), FO2 staining. No sheen, no odor, no discoloration.	Wet	
10			94						▽	
11							SP	Wet, fine- to coarse-grained Sand, dark-brown. No sheen, no odor, no discoloration.		
12		0.0			P02-12				Wet	
13								Boring terminated at 12 feet bgs on 1/10/2007. Groundwater was encountered at 9.5 feet bgs during drilling. Backfilled with fine bentonite chips. Borehole abandoned flush to match surrounding grade.		
14										
15										
16										
17										
18										
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
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Northwest Auto Wrecking
10230 East Marginal Way South
Tukwila, Washington

Date Started: 1/10/2007
Date Finished: 1/10/2007
Logged By: AIS
Chk By: AIS
SES Project No.: 0563-001-01
File ID.: [redacted]

BORING LOG
P02

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	ESN NW / Marty
Drilling Method:	Geoprobe
Location:	
Surface Condition:	Asphalt
Total Depth:	10
First GW Depth:	8.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt		
1								Moist, fine- to medium-graind (uniform) Sand, brown.		
2			73				SP			
3								- FeO2 staining at 3 feet bgs.		
4		0.0			P03-04		SM	Moist, fine- to medium-grained silty Sand, brown, FeO2 staining. No sheen, no odor, no discoloration.	Mst	
5										
6			83				ML	Moist, soft Silt, gray-brown, with clay, FeO2 staining (fine decayed organics), low plasticy.		
7										
8		0.0			P03-08		SM	Moist to wet, fine-grained silty Sand, olive-gray, some clay, FeO2 staining (organics), mottling. No sheen, no odor, no discoloration.	Mst ▽	
9		0.0			P03-09		SP	Wet, fine- to coarse-grained Sand, dark-brown, light-brown silt lamination (~ 1"), micaceous. No sheen, no odor no discoloration.	Wet	
10										
11								Boring terminated at 10 feet bgs on 1/10/2007. Groundwater was encountered at 8 feet bgs during drilling. Boring was completed as 1-inch diameter monitoring well MW02 as illustrated above-right. Monitoring well screened from 5 feet to 10 feet bgs. Flushmount surface completion.		
12										
13										
14										
15										
16										
17										
18										
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Northwest Auto Wrecking
10230 East Marginal Way South
Tukwila, Washington

Date Started: 1/10/2007
Date Finished: 1/10/2007
Logged By: AIS
Chk By: AIS
SES Project No.: 0563-001-01
File ID.: P:\563 ENV\PROJECTS\563-0-1.GPJ

BORING LOG
P03/MW02

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	ESN NW / Marty
Drilling Method:	Geoprobe
Location:	Within the chain-linked car yard
Surface Condition:	Asphalt
Total Depth:	10
First GW Depth:	8.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt		
1							SM	Moist, fine- to coarse-grained silty Sand, brown to olive-brown (Fill). No odor, no discoloration.		
2										
3			69				ML	Moist Silt, gray-brown, some fine-grained sand, FeO2 staining. No odor, no discoloration.		
4		0.0			P04-04		SP	Moist, fine- to medium-grained (uniform) Sand, dark-brown, some coarse-grained sand, FeO2 staining (decayed fine organics).	Mst	
5							SM	Moist, fine- to medium-grained silty Sand, olive-brown.		
6										
7		0.0	71		P04-08		ML OL	Moist Silt, gray-brown, FeO2 staining (decayed fine organics). No sheen, no odor, no discoloration. Soft, dark-brown decayed organics with clay, low plasticy, mottling.	Mst	
8		0.0			P04-8.5		SM	Moist, fine- to medium-grained silty Sand, FeO2 staining. No sheen, no odor, no discoloration. - Becomes wet at 8.5 feet bgs.	▽Wet	
9										
10			95					Boring terminated at 10 feet bgs on 1/10/2007. Groundwater was encountered at 8 feet bgs during drilling. Backfilled with fine bentonite chips. Borehole abandoned flush to match surrounding grade.		
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Northwest Auto Wrecking
10230 East Marginal Way South
Tukwila, Washington

Date Started: 1/10/2007
Date Finished: 1/10/2007
Logged By: AIS
Chk By: AIS
SES Project No.: 0563-001-01
File ID.: [illegible]

BORING LOG
P04

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	ESN NW / Marty
Drilling Method:	Geoprobe
Location:	Yard driveway from main entrance
Surface Condition:	Concrete
Total Depth:	10
First GW Depth:	10

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Concrete		
1										
2							SP	Moist, fine- to medium-grained Sand, dark-brown.		
3			63							
4		0.0			P05-04		SM	Moist, fine-grained silty Sand, brown to olive-brown, occasional clay, FeO2 staining (decayed organics). No sheen, no odor, no discoloration.	Mst	
5							CL	Moist, soft Clay, gray, low plasticity.		
6			100				ML	Moist, soft Silt with < 1" thick silty sand to sand interbeds, olive-brown, FeO2 staining. No sheen, no odor, no discoloration.		
7										
8		0.0			P05-08			No sheen, no odor, no discoloration.	Mst	
9			100				SM	Moist to wet, fine- to coarse-grained silty Sand, olive-brown, with sand with gravel interbeds, FeO2 staining.	Mst to Wet	
10		0.0			P05-10			- Becomes gray, laminated, mottled. No sheen, no odor, no discoloration. ▽		
11								Boring terminated at 10 feet bgs on 1/10/2007. Groundwater was encountered at 10 feet bgs during drilling. Backfilled with fine bentonite chips. Borehole abandoned flush to match surrounding grade.		
12										
13										
14										
15										
16										
17										
18										
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Northwest Auto Wrecking
10230 East Marginal Way South
Tukwila, Washington

Date Started: 1/10/2007
Date Finished: 1/10/2007
Logged By: AIS
Chk By: AIS
SES Project No.: 0563-001-01
File ID.: [redacted]

BORING LOG
P05

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	ESN NW / Marty
Drilling Method:	Geoprobe
Location:	
Surface Condition:	Asphalt
Total Depth:	8
First GW Depth:	7

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt		
1							SM	Moist, fine- to coarse-grained silty Sand, brown, occasional fine gravel (Fill).		
2										
3			65							
4		0.0			P06-04		ML	Moist Silt, gray, with clay, FeO2 staining, low plasticity. No sheen, no odor, no discoloration.	Mst	
5										
6								Moist to wet, fine-grained silty Sand, gray, black decayed organic (wood), FeO2 staining. No sheen, no odor, no discoloration.	Mst to Wet ▽	
7			75				SM			
8		0.0			P06-07			- Becomes wet at 7 feet.		
9								Boring terminated at 8 feet bgs on 1/10/2007. Groundwater was encountered at 7 feet bgs during drilling. Backfilled with fine bentonite chips. Borehole abandoned flush to match surrounding grade.		
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
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Northwest Auto Wrecking
10230 East Marginal Way South
Tukwila, Washington

Date Started: 1/10/2007
Date Finished: 1/10/2007
Logged By: AIS
Chk By: AIS
SES Project No.: 0563-001-01
File ID.: P:\SES ENV\PROJECTS\0563-0-1.GPJ

BORING LOG
P06

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	ESN NW / Marty
Drilling Method:	Geoprobe
Location:	Burnt building
Surface Condition:	Asphalt
Total Depth:	12
First GW Depth:	8.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt		
1							SM	Moist, fine- to coarse-grained silty Sand, brown, with fine to coarse subangular gravel (Fill).		
2			81							
3							SM	Moist, fine-grained silty Sand, olive-brown.		
4		0.0			P07-04				Mst	
5								Moist Silt, olive-gray, some fine- to coarse-grained sand, some clay, some organics, FeO2 staining, low plasticity, No sheen, no odor, no discoloration.		
6							ML			
7			75							
8		0.0			P07-08			- Sand increases, becomes with fine-grained sand.	Mst	
9		0.0			P07-08.5		SM	Wet, fine- to medium-grained silty Sand, olive-brown. No sheen, no odor, no discoloration.	▽ Wet	
10			100							
11							SP	Wet, fine- to coarse-grained Sand, dark-brown, some silt, some organics (fine roots < 1" thick). No sheen, no odor, no discoloration.		
12		0.0			P07-12				Wet	
13								Boring terminated at 12 feet bgs on 1/11/2007. Groundwater was encountered at 8 feet bgs during drilling. Boring was completed as 1-inch diameter monitoring well MW-3 as illustrated above-right. Monitoring well screened from 7 feet to 12 feet bgs. Flushmount surface completion.		
14										
15										
16										
17										
18										
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
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Northwest Auto Wrecking
10230 East Marginal Way South
Tukwila, Washington

Date Started: 1/11/2007
Date Finished: 1/11/2007
Logged By: AIS
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SES Project No.: 0563-001-01
File ID.: P:\0563 Gint\PROJECTS\0563-0-1.GPJ

BORING LOG
P07/MW03

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	ESN NW / Marty
Drilling Method:	Geoprobe
Location:	
Surface Condition:	Concrete
Total Depth:	12
First GW Depth:	6

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								3" Concrete.		
1							SM	Moist, fine- to coarse-grained silty Sand, brown, with subangular gravel (Fill).		
2										
3			69				SP	Moist, fine- to medium-grained Sand, brown, FeO2 staining. No sheen, no odor, no discoloration.		
4		0.0			P08-04		SM	Moist, fine-grained silty Sand, olive-grey.	Mst	
5							ML	Moist, soft Silt, olive-gray, some fine-grained sand, some clay, with brown organics, low plasticity. No sheen, no odor, no discoloration.		
6		34.5			P08-06				Wet	
7			58				GM	Wet, fine to coarse silty, subangular to subrounded Gravel, grey-brown, with fine- to coarse-grained sand.		
8							SM	Wet, fine- to medium-grained silty Sand, olive-gray.		
9							ML	Wet, soft Silt, gray to olive-brown, FeO2 staining. No sheen, no odor, no discoloration.		
10										
11			63				SM	Wet, fine-grained silty Sand, olive-brown, with clayey silt layers (< 1" thick). No sheen, no odor, no discoloration.		
12		172+			P08-12				Wet	
13								Boring terminated at 12 feet bgs on 1/11/2007. Groundwater was encountered at 8 feet bgs during drilling. Boring was completed as 1-inch diameter monitoring well MW04 as illustrated above-right. Monitoring well screened from 7 feet to 12 feet bgs. Flushmount surface completion.		
14										
15										
16										
17										
18										
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
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Northwest Auto Wrecking
10230 East Marginal Way South
Tukwila, Washington

Date Started: 1/11/2007
Date Finished: 1/11/2007
Logged By: AIS
Chk By: AIS
SES Project No.: 0563-001-01
File ID.: [redacted]

BORING LOG
P08/MW04

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	ESN NW / Marty
Drilling Method:	Geoprobe
Location:	
Surface Condition:	Concrete
Total Depth:	12
First GW Depth:	8

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								10" Concrete		
1							SM	Moist, fine- to coarse-grained silty Sand, brown, with gravel (Fill).		
2							SP	Moist, fine-grained Sand, brown, with organics.		
3		0.0	58		P09-04		SM	Moist, fine-grained silty Sand, brown. No sheen, no odor, no discoloration.	Mst	
4							ML	Moist, soft Silt, gray.		
5							SM	Moist, fine- to coarse-grained silty Sand, olive-brown.		
6										
7		0.0	77		P09-08		ML	Moist Silt, gray-brown to olive-gray, with clay, low plasticity. No sheen, no odor, no discoloration.	Mst	
8									▽	
9		0.0			P09-09			Wet, fine- to coarse-grained (uniform) Sand, dark-brown. No sheen, no odor, no discoloration.	Wet	
10			100				SP			
11										
12		0.0			P09-12				Wet	
13								Boring terminated at 12 feet bgs on 1/11/2007. Groundwater was encountered at 8 feet bgs during drilling Boring was completed as 1-inch diameter monitoring well MW05 installed as illustrated above-right. Monitoring well screened from 7 feet to 12 feet bgs. Flushmount surface completion.		
14										
15										
16										
17										
18										
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
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Northwest Auto Wrecking
10230 East Marginal Way South
Tukwila, Washington

Date Started: 1/11/2007
Date Finished: 1/11/2007
Logged By: AIS
Chk By: AIS
SES Project No.: 0563-001-01
File ID.: [illegible]

BORING LOG
P09/MW05

Logs for Monitoring Wells MW-1 to MW-9, MW-101, and MW-201 to MW-207

Dalton, Olmsted & Fuglevand, Inc.

December 2001

Boring No. MW-1

Logged by: CRL

Date: 7/20/01

Soil Description	Consistency/ Relative Density	Depth (ft.)	Sample	(N) Blows/ ft.	Head Space (ppm) Sheen	Well As Built
6 inches asphalt concrete over crushed rock base. FILL: gray silty fine to medium sand, dry.	Loose					
Black silty fine to medium SAND, moist.	Loose to Medium Dense	5	I	25	602 Sheen	
Gray SILT with organics, wet.	Soft		I	4	694 Sheen	
		10	I	4	425 Sheen	
Black silty fine to medium SAND, saturated.	Medium Dense		I	20	125 None	
		15	I	27	7.0 None	

Boring terminated at 16.5 feet.
2-inch PVC monitoring well constructed as shown.

Terra Associates, Inc.
Geotechnical Consultants

BORING LOG
SEATTLE WAREHOUSE
SEATTLE, WASHINGTON

Proj. No. T-914-4	Date SEPT 2001	Figure A-2

Boring No. MW-2

Logged by: CRL

Date: 7/20/01

Soil Description	Consistency/ Relative Density	Depth (ft.)	Sample	(N) Blows/ ft.	Head Space (ppm) Sheen	Well As Built
4 inches asphalt concrete over crushed rock base. FILL: brown silty fine to medium sand, moist.	Loose					
Black silty fine to medium SAND, moist.	Loose to Medium Dense	5	I	17	25 None	
Gray SILT, wet.	Soft	10	I	4	231 Sheen	
Black silty fine to medium SAND, saturated.	Medium Dense		I	20	142 Sheen	
		15	I	38	18 None	

Boring terminated at 16.5 feet.
2-inch PVC monitoring well constructed as shown.

Terra Associates, Inc.
Geotechnical Consultants

BORING LOG
SEATTLE WAREHOUSE
SEATTLE, WASHINGTON

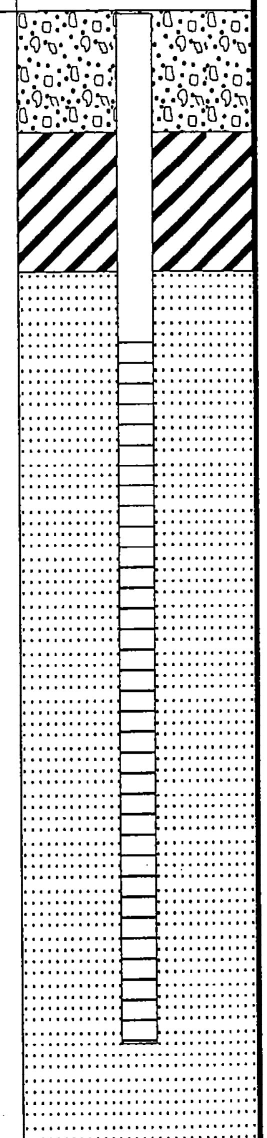
Proj. No. T-914-4 | Date SEPT 2001 | Figure A-3

Boring No. MW-3

Logged by: CRL

Date: 7/20/01

Soil Description	Consistency/ Relative Density	Depth (ft.)	Sample	(N) Blows/ ft.	Head Space (ppm) Sheen	Well As Built
4-inches ashpalt concrete over crushed rock base.						
FILL: black silty sand with gravel.	Loose	5	I	7	15 None	
			I	6	276 Sheen	
		10				
Black silty fine SAND with silt layers, saturated.	Loose to Medium Dense		I	20	146 None	
		15	I	30	100 None	



Boring terminated at 16.5 feet.
2-inch PVC monitoring well constructed as shown.

Terra Associates, Inc.
Geotechnical Consultants

BORING LOG
SEATTLE WAREHOUSE
SEATTLE, WASHINGTON

Proj. No. T-914-4	Date SEPT 2001	Figure A-4

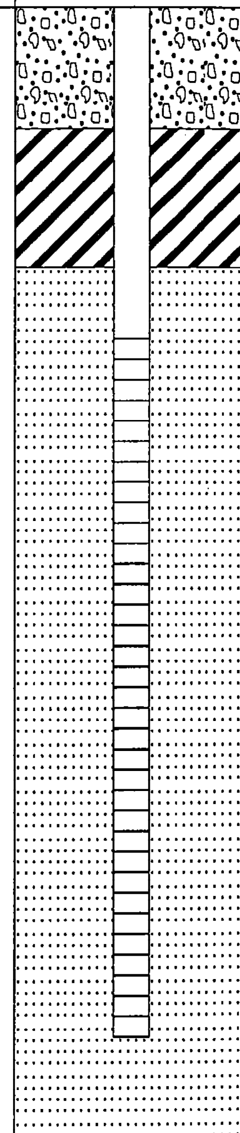
Boring No. MW-4

Logged by: CRL

Date: 7/20/01

Soil Description	Consistency/ Relative Density	Depth (ft.)	Sample	(N) Blows/ ft.	Head Space (ppm) Sheen
4 inches ashpalt concrete over crushed rock base.					
FILL: black silty sand with gravel and silt, moist.	Loose to Medium Dense	5		17	3.6 None
Gray SILT, wet.	Soft	10		11	2.1 None
Black silty fine to medium SAND, saturated.	Medium Dense	15		31	2.2 None

Well As Built



Boring terminated at 16.5 feet.
2-inch PVC monitoring well constructed at shown.

Terra Associates, Inc.
Geotechnical Consultants

BORING LOG
SEATTLE WAREHOUSE
SEATTLE, WASHINGTON

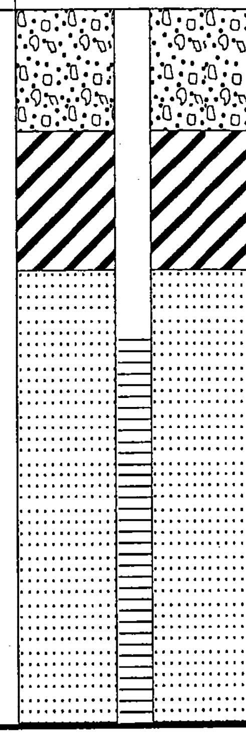
Proj. No. T-914-4 | Date SEPT 2001 | Figure A-5

Boring No. MW-5

Logged by: CRL

Date: 7/20/01

Approximate Elev.

Soil Description	Consistency/ Relative Density	Depth (ft.)	Sample	(N) Blows/ ft.	Head Space (ppm) Sheen	Well As Built
6 inches ashphalt concrete over crushed rock base.						
FILL: black silty fine to medium sand with gravel, wet.	Loose	5	I	9	224 Sheen	
			I	17	277 Sheen	
		10				

Boring terminated at 10.5 feet on concrete slab.
2-inch PVC monitoring well constructed as shown.

Terra Associates, Inc.
Geotechnical Consultants

BORING LOG
SEATTLE WAREHOUSE
SEATTLE, WASHINGTON

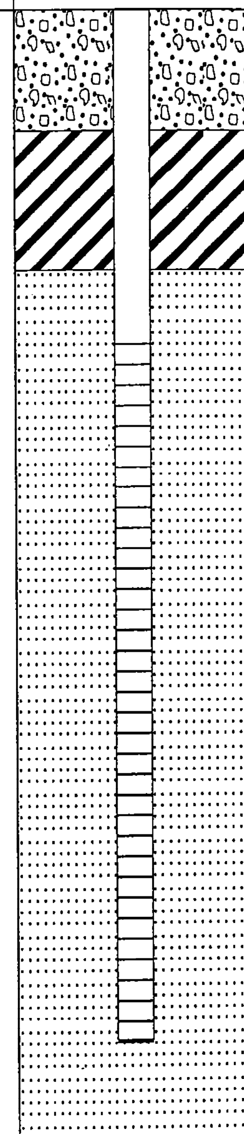
Proj. No. T-914-4	Date SEPT 2001	Figure A-6

Boring No. MW-6

Logged by: CRL

Date: 8/8/01

Soil Description	Consistency/ Relative Density	Depth (ft.)	Sample	(N) Blows/ ft.	Head Space (ppm) Sheen	Well As Built
6 inches asphlat concrete over crushed rock base.						
Black silty fine to medium SAND, moist. (upper 4 feet possible fill)	Loose					
		5	I	33	3.6 None	
Gray SILT, wet.	Soft		I	8	73 Sheen	
Black silty fine to medium SAND, saturated.	Medium Dense	10	I	66	7 None	
		15	I	36	2.1 None	



Boring terminated at 16.5 feet.
2-inch PVC monitoring well constructed as shown.

Terra Associates, Inc.
Geotechnical Consultants

BORING LOG
SEATTLE WAREHOUSE
SEATTLE, WASHINGTON

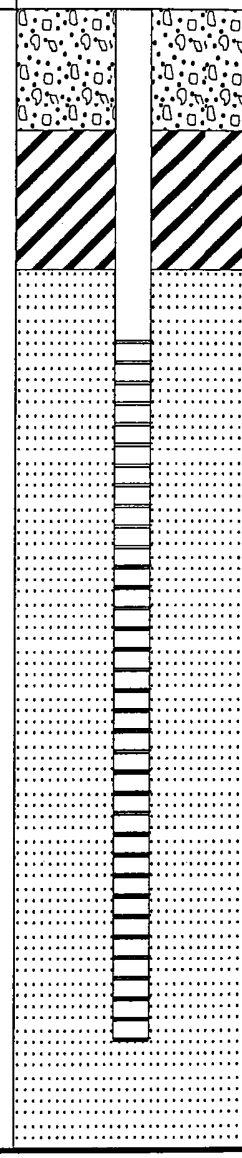
Proj. No. T-914-4	Date SEPT 2001	Figure A-7

Boring No. MW-7

Logged by: CRL

Date: 8/8/01

Soil Description	Consistency/ Relative Density	Depth (ft.)	Sample	(N) Blows/ ft.	Head Space (ppm) Sheen	Well As Built
6 inches asphalt concrete over crushed rock base.						
Black silty fine to medium SAND, moist.	Loose to Medium Dense	5	I	20	68 None	
Gray SILT, wet.	Soft		I	4	606 Sheen	
		10	I	4	585 Sheen	
Black silty fine to medium SAND, saturated.	Medium Dense	15	I	35	26 None	



Boring terminated at 16.5 feet.
2-inch PVC monitoring well constructed as shown.

Terra Associates, Inc.
Geotechnical Consultants

BORING LOG
SEATTLE WAREHOUSE
SEATTLE, WASHINGTON

Proj. No. T-914-4	Date SEPT 2001	Figure A-8

Boring No. MW-8

Logged by: CRL

Date: 8/8/01

Soil Description	Consistency/ Relative Density	Depth (ft.)	Sample	(N) Blows/ ft.	Head Space (ppm) Sheen	Well As Built
6 inches asphalt concrete over crushed rock base.						
Black silty fine to medium SAND.	Loose to Medium Dense	5	I	14	42 None	
Gray SILT, wet.	Soft		I	4	7.5 None	
		10	I	4	9.1 None	
Black silty fine to medium SAND, saturated.	Medium Dense	15	I	22	4.5 None	

Boring terminated at 16.5 feet.
2-inch PVC monitoring well constructed as shown.

Terra Associates, Inc.
Geotechnical Consultants

BORING LOG
SEATTLE WAREHOUSE
SEATTLE, WASHINGTON

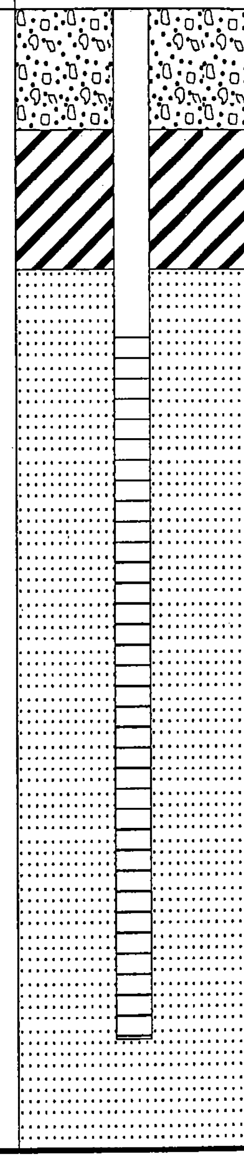
Proj. No. T-914-4	Date SEPT 2001	Figure A-9

Boring No. MW-9

Logged by: CRL

Date: 8/8/01

Soil Description	Consistency/ Relative Density	Depth (ft.)	Sample	(N) Blows/ ft.	Head Space (ppm) Sheen	Well As Built
6 inches asphalt concrete over crushed rock base.						
FILL: brown silty sand with gravel.	Loose to Medium Dense	5	I	21	2.9 None	
			I	20	3.1 None	
Gray SILT.	Soft	10	I	8	1.9 None	
Black silty fine to medium SAND.	Medium Dense	15	I	31	2.0 None	



Boring terminated at 16.5 feet.
2-inch PVC monitoring well constructed as shown.

Terra Associates, Inc.
Geotechnical Consultants

BORING LOG
SEATTLE WAREHOUSE
SEATTLE, WASHINGTON

Proj. No. T-914-4	Date SEPT 2001	Figure A-10

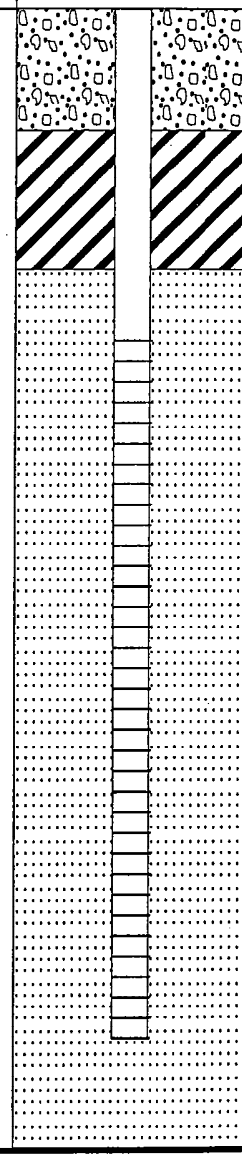
Boring No. MW-101

Logged by: CRL

Date: 8/8/01

Soil Description	Consistency/ Relative Density	Depth (ft.)	Sample	(N) Blows/ ft.	Head Space (ppm) Sheen
6 inches CONCRETE.					
FILL: brownish- gray silty sand with gravel, cobbles and some concrete debris, moist. (mixed with silt below 7 feet)	Medium Dense	5	I	37	2.2 None
			I	34	1.9 None
Grayish-brown SILT.	Soft	10	I	3	3.0 None
Black silty fine to medium SAND, saturated.	Medium Dense	15	I	35	2.1 None

Well As Built



Boring terminated at 16.5 feet.
2-inch PVC monitoring well constructed as shown.

Terra Associates, Inc.
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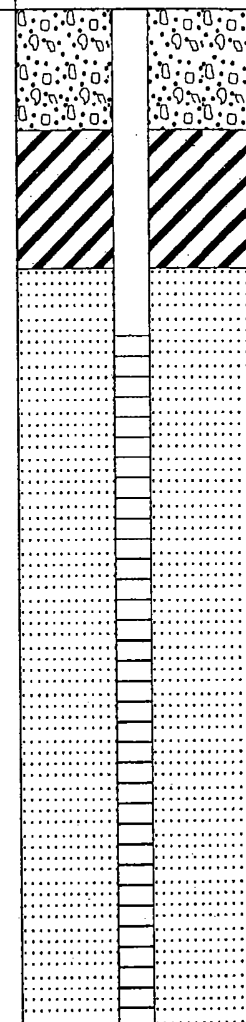
BORING LOG
SEATTLE WAREHOUSE
SEATTLE, WASHINGTON

Proj. No. T-914-4	Date SEPT 2001	Figure A-11

Boring No. MW-201

Logged by: CRL

Date: 12/14/01

Soil Description	Consistency/ Relative Density	Depth (ft.)	Sample	(N) Blows/ ft.	Head Space (ppm) Sheen	Well As Built
No samples taken. Well constructed at loaction of Geoprobe 6-3A.		5 10				

Boring terminated at 15 feet.
2-inch PVC monitoring well constructed as shown.

Terra Associates, Inc.
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BORING LOG
FORMER TRUCK SHOP FACILITY
SEATTLE, WASHINGTON

Proj. No. T-914-4	Date MAR 2002	Figure A-11

Boring No. MW-202

Logged by: CRL

Date: 12/14/01

Soil Description	Consistency/ Relative Density	Depth (ft.)	Sample	(N) Blows/ ft.	Head Space (ppm) Sheen	Well As Built
3 inches asphalt concrete.						
FILL: brown silty sand, moist.	Medium Dense	5	I	21		
Brown SILT, wet.	Loose	10	I	3		
Black silty fine SAND, wet.	Medium Dense to Loose	15	I	16		

Boring terminated at 16.5 feet.
2-inch PVC monitoring well constructed as shown.

Terra Associates, Inc.
Geotechnical Consultants

BORING LOG
FORMER TRUCK SHOP FACILITY
SEATTLE, WASHINGTON

Proj. No. T-914-4	Date MAR 2002	Figure A-12

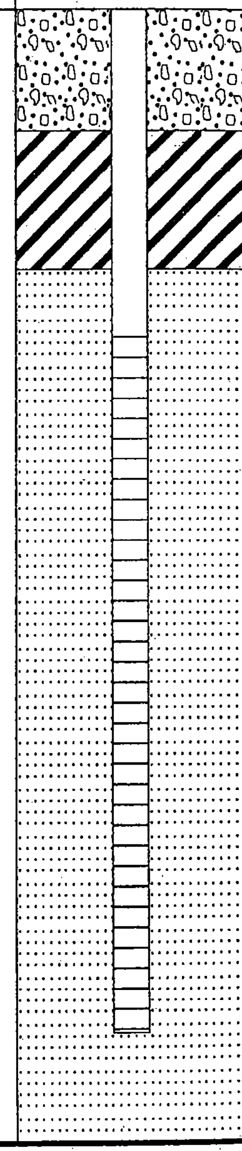
Boring No. MW-203

Logged by: CRL

Date: 12/14/01

Soil Description	Consistency/ Relative Density	Depth (ft.)	Sample	(N) Blows/ ft.	Head Space (ppm) Sheen
3 inches asphalt concrete.					
FILL: brown silty sand.	Medium Dense				
Black silty fine SAND, moist.	Medium Dense	5	I	21	
Gray SILT, wet.	Loose	10	I	4	
Black silty fine SAND, wet.	Medium Dense	15	I	23	

Well As Built



Boring terminated at 16.5 feet.
2-inch PVC monitoring well constructed as shown.

Terra Associates, Inc.
Geotechnical Consultants

BORING LOG
FORMER TRUCK SHOP FACILITY
SEATTLE, WASHINGTON

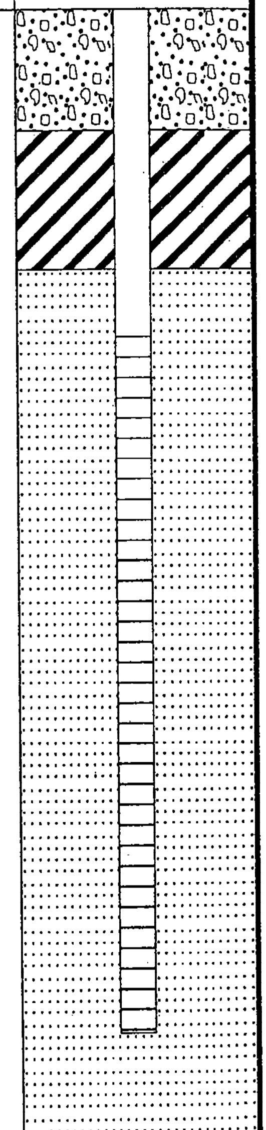
Proj. No. T-914-4 | Date MAR 2002 | Figure A-13

Boring No. MW-204

Logged by: CRL

Date: 12/14/01

Soil Description	Consistency/ Relative Density	Depth (ft.)	Sample	(N) Blows/ ft.	Head Space (ppm) Sheen	Well As Built
8 inches asphalt concrete.						
FILL: black silty sand.						
Black silty fine SAND, moist.	Loose	5		12		
Gray SILT, wet.	Loose	10		2 2		
Black silty fine SAND, wet.	Medium Dense	15		21		



Boring terminated at 16.5 feet.
2-inch PVC monitoring well constructed as shown.

Terra Associates, Inc.
Geotechnical Consultants

Proj. No. T-914-4	Date MAR 2002	Figure A-14

Boring No. MW-205

Logged by: CRL

Date: 12/14/01

Soil Description	Consistency/ Relative Density	Depth (ft.)	Sample	(N) Blows/ ft.	Head Space (ppm) Sheen	Well As Built
4 inches asphalt concrete.						
FILL: gray silty sand.						
Gray SILT, moist becoming wet.	Loose	5	I	2		
			I	2		
		10	I	3		
Black silty fine SAND.	Loose	15	I	15		

Boring terminated at 16.5 feet.
2-inch PVC monitoring well constructed as shown.

Terra Associates, Inc.
Geotechnical Consultants

BORING LOG
FORMER TRUCK SHOP FACILITY
SEATTLE, WASHINGTON

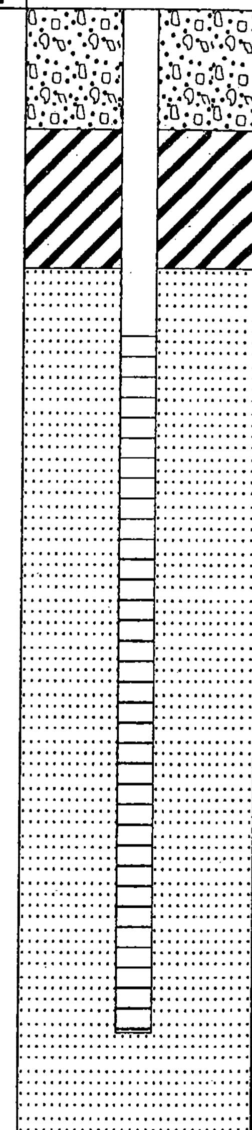
Proj. No. T-914-4	Date MAR 2002	Figure A-15

Boring No. MW-206

Logged by: CRL

Date: 12/14/01

Soil Description	Consistency/ Relative Density	Depth (ft.)	Sample	(N) Blows/ ft.	Head Space (ppm) Sheen	Well As Built
4 inches asphalt concrete.						
Black silty SAND (upper 4 feet probable fill), dry to moist.	Loose to Medium Dense	5	I	6		
Gray SILT, wet.	Loose		I	2		
		10	I	2		
Black silty fine SAND.	Loose	15	I	13		



Boring terminated at 16.5 feet.
2-inch PVC monitoring well constructed as shown.

Terra Associates, Inc.
Geotechnical Consultants

BORING LOG
FORMER TRUCK SHOP FACILITY
SEATTLE, WASHINGTON

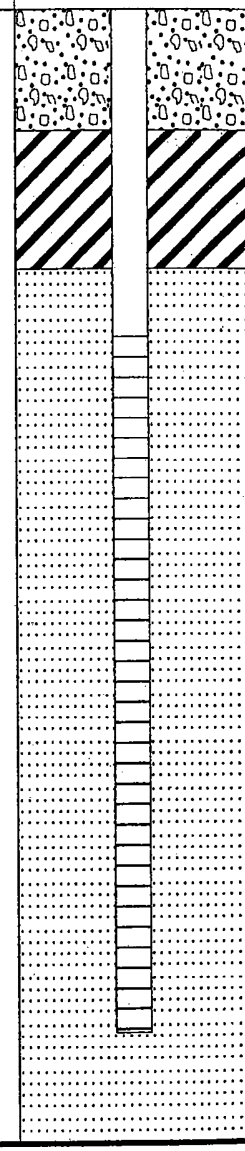
Proj. No. T-914-4 | Date MAR 2002 | Figure A-16

Boring No. MW-207

Logged by: CRL

Date: 12/14/01

Soil Description	Consistency/ Relative Density	Depth (ft.)	Sample	(N) Blows/ ft.	Head Space (ppm) Sheen	Well As Built
2 inches asphalt concrete.						
FILL: brown silty gravel with sand.	Loose to Medium Dense					
		5	I	5		
Black silty fine to medium SAND, moist becoming wet.	Loose	10	I	10		
		15	I	10		



Boring terminated at 16.5 feet.
2-inch PVC monitoring well constructed as shown.

Terra Associates, Inc.
Geotechnical Consultants

BORING LOG
FORMER TRUCK SHOP FACILITY
SEATTLE, WASHINGTON

Proj. No. T-914-4	Date MAR 2002	Figure A-17

Logs for Monitoring Wells MW-1 to MW-3

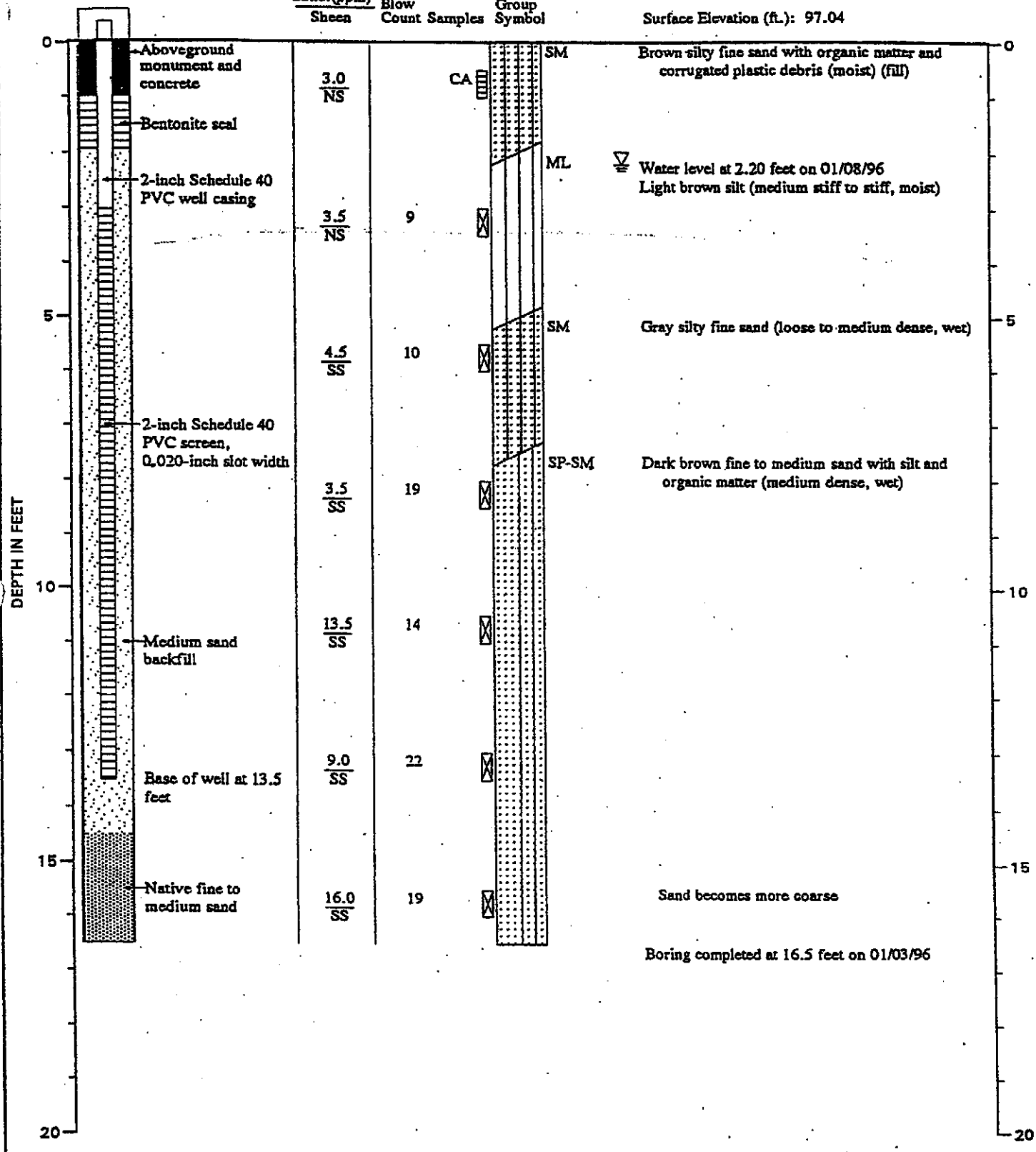
GeoEngineers, Inc.

January 1996

MONITORING WELL MW-1

WELL SCHEMATIC

Casing Elevation (ft.): 100.00
Casing Stickup (ft.): +2.96



Note: See Figure A- 2 for explanation of symbols

:TNV:CMS 2/6/96

89-002-85-1160

Geo Engineers

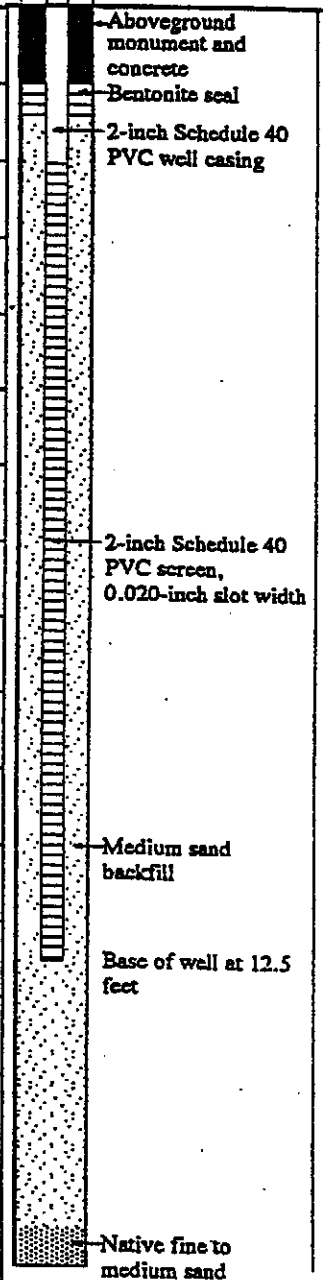
LOG OF MONITORING WELL

FIGURE A-3

MONITORING WELL MW-2

WELL SCHEMATIC

Casing Elevation (ft.): 100.73
Casing Stickup (ft.): +3.10



Vapor Conc.(ppm) / Sheen	Blow Count	Samples	Group Symbol	DESCRIPTION (Surface Elevation (ft.): 97.63)
			SM	Brown silty fine sand with organic matter (fill)
12.2 / SS		CA		
			ML	Gray silt (very soft to soft, wet)
				Water level at 2.44 feet on 01/08/96
1,520 / HS	2	CA		
2,220 / HS	1			
			SM	Gray silty fine sand with organic matter (loose to medium dense, wet)
2,220 / HS	10	CA		
			SP-SM	Dark gray fine to medium sand with a trace of silt and organic matter (medium dense, wet)
111 / SS	18			
20.7 / SS	22			
43.0 / SS	16			
				Boring completed to 16.5 feet on 01/03/96

DEPTH IN FEET

0
5
10
15
20

Note: See Figure A- 2 for explanation of symbols

:TNV:CMS 2/8/96

J-002-85-1160

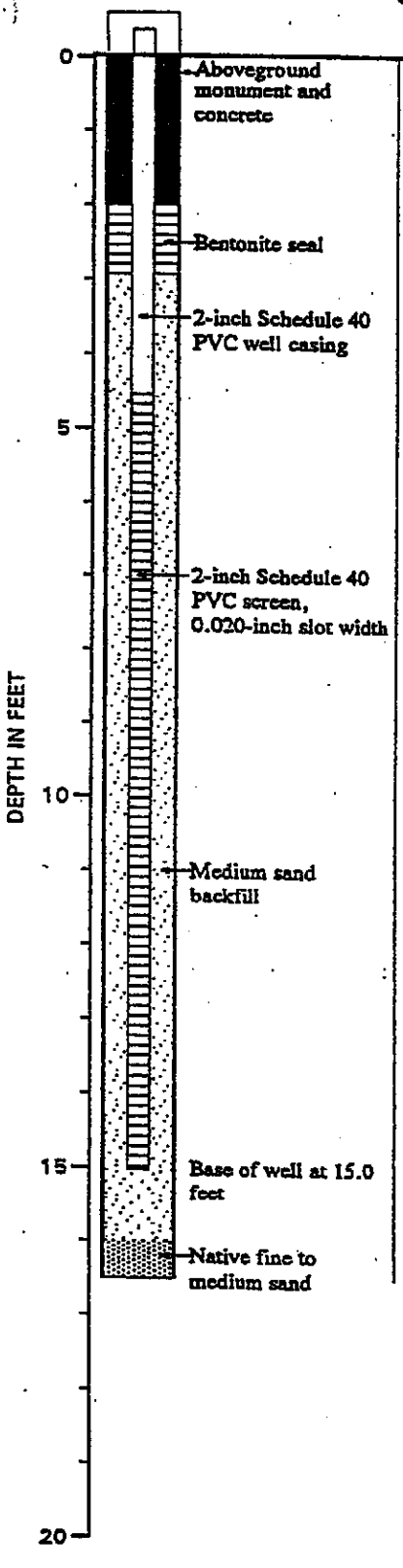
Geo Engineers

LOG OF MONITORING WELL

MONITORING WELL MW-3

WELL SCHEMATIC

Casing Elevation (ft.): 100.20
Casing Stickup (ft.): +3.07



Vapor Conc. (ppm) / Sheen	Blow Count	Samples	Group Symbol	DESCRIPTION
				Surface Elevation (ft.): 97.13
24.8 / SS		CA	GW	Grayish brown fine to coarse gravel with sand, silt, organic matter and concrete debris (moist) (fill)
			SP-SM	Brown fine sand with silt (moist)
				▽ Water level at 2.07 feet on 01/08/96
12.2 / SS	2		ML	Grayish brown silt (very soft to soft, moist)
				Water level at 5.14 feet on 01/08/96
20.0 / SS	1		SM	Grayish brown silty fine sand (very loose, wet)
15.8 / SS	18			Becomes dark gray and medium dense
12.0 / SS	17			Sand becomes more coarse
15.2 / SS	22			
14.4 / SS	14			
				Boring completed at 16.5 feet on 01/03/96

Note: See Figure A- 2 for explanation of symbols

:TNV:CMS 2/6/98

98-002-86-1160

Geo Engineers

LOG OF MONITORING WELL

FIGURE A-5

APPENDIX B
LABORATORY ANALYTICAL REPORTS

REMEDIAL INVESTIGATION, FOCUSED FEASIBILITY STUDY,
AND CLEANUP ACTION PLAN
3301 South Norfolk Street and 10230 East Marginal Way South
Seattle/Tukwila, Washington

Farallon PN: 1071-026

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

October 26, 2016

Scott Allin
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 1071-014
Laboratory Reference No. 1610-186

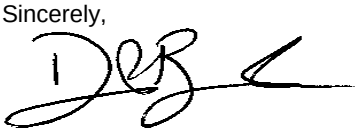
Dear Scott:

Enclosed are the analytical results and associated quality control data for samples submitted on October 18, 2016.

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 26, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-186
Project: 1071-014

Case Narrative

Samples were collected on October 17, 2016 and received by the laboratory on October 18, 2016. 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 of Report: October 26, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-186
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	10-186-01					
Client ID:	**F-18-GW**					
Arsenic	**24**	3.0	200.8		10-20-16	
Lab ID:	10-186-02					
Client ID:	**F-17-GW**					
Arsenic	**3.2**	3.0	200.8		10-20-16	
Lab ID:	10-186-03					
Client ID:	**F-16-GW**					
Arsenic	**ND**	3.0	200.8		10-20-16	
Lab ID:	10-186-04					
Client ID:	**F-12-GW**					
Arsenic	**ND**	3.0	200.8		10-20-16	

Date of Report: October 26, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-186
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8
METHOD BLANK QUALITY CONTROL

Date Analyzed: 10-20-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB1020D1

Analyte	Method	Result	PQL
Arsenic	200.8	**ND**	3.0

Date of Report: October 26, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-186
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8
DUPLICATE QUALITY CONTROL

Date Analyzed: 10-20-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-189-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**ND**	**ND**	NA	3.0	

Date of Report: October 26, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-186
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8
MS/MSD QUALITY CONTROL

Date Analyzed: 10-20-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-189-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	200	**213**	106	**209**	105	2	

OnSite Environmental Inc.

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.

Z -

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

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: Farallon
Project Number: 1071-014
Project Name: South Norfolk Street & East Marginal Way
Project Manager: Scott Allin
Sampled by: Ryan Ostrom

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 10-186

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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	* Dissolved Arsenic (6010/7000 series)				% Moisture
1	F-18-GW	10/17/16	0940	W	1																		X				
2	F-17-GW		1115		1																		X				
3	F-16-GW		1230		1																		X				
4	F-12-GW	↓	1430	↓	1																		X				
	RD																										

	Signature	Company	Date	Time
Relinquished	Ryan Ostrom	Farallon	10/17/16	1700
Received		COSE	10/18/16	1300
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
* Field Filtered

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

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

October 27, 2016

Scott Allin
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 1071-014
Laboratory Reference No. 1610-187

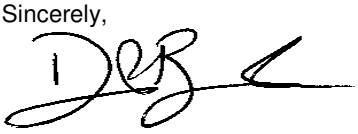
Dear Scott:

Enclosed are the analytical results and associated quality control data for samples submitted on October 18, 2016.

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 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

Case Narrative

Samples were collected on October 17, 2016 and received by the laboratory on October 18, 2016. 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.

NWTPH Gx and Volatiles EPA 8260C (soil) Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

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 of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

NWTPH-Gx/BTEX

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-18-GW**					
Laboratory ID:	10-187-02					
Benzene	**ND**	1.0	EPA 8021B	10-24-16	10-24-16	
Toluene	**ND**	1.0	EPA 8021B	10-24-16	10-24-16	
Ethyl Benzene	**ND**	1.0	EPA 8021B	10-24-16	10-24-16	
m,p-Xylene	**ND**	1.0	EPA 8021B	10-24-16	10-24-16	
o-Xylene	**ND**	1.0	EPA 8021B	10-24-16	10-24-16	
Gasoline	**ND**	100	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*85*	*61-118*				
Client ID:	**F-17-GW**					
Laboratory ID:	10-187-04					
Benzene	**90**	4.0	EPA 8021B	10-24-16	10-24-16	
Toluene	**ND**	4.0	EPA 8021B	10-24-16	10-24-16	
Ethyl Benzene	**140**	4.0	EPA 8021B	10-24-16	10-24-16	
m,p-Xylene	**20**	4.0	EPA 8021B	10-24-16	10-24-16	
o-Xylene	**ND**	4.0	EPA 8021B	10-24-16	10-24-16	
Gasoline	**1300**	400	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*61-118*				
Client ID:	**F-16-GW**					
Laboratory ID:	10-187-05					
Benzene	**ND**	1.0	EPA 8021B	10-24-16	10-24-16	
Toluene	**ND**	1.0	EPA 8021B	10-24-16	10-24-16	
Ethyl Benzene	**ND**	1.0	EPA 8021B	10-24-16	10-24-16	
m,p-Xylene	**ND**	1.0	EPA 8021B	10-24-16	10-24-16	
o-Xylene	**ND**	1.0	EPA 8021B	10-24-16	10-24-16	
Gasoline	**ND**	100	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*80*	*61-118*				
Client ID:	**F-12-GW**					
Laboratory ID:	10-187-07					
Gasoline	**ND**	100	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*84*	*61-118*				

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1024W2					
Benzene	**ND**	1.0	EPA 8021B	10-24-16	10-24-16	
Toluene	**ND**	1.0	EPA 8021B	10-24-16	10-24-16	
Ethyl Benzene	**ND**	1.0	EPA 8021B	10-24-16	10-24-16	
m,p-Xylene	**ND**	1.0	EPA 8021B	10-24-16	10-24-16	
o-Xylene	**ND**	1.0	EPA 8021B	10-24-16	10-24-16	
Gasoline	**ND**	100	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*77*	*61-118*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-217-06										
	ORIG	DUP									
Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Toluene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Ethyl Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
m,p-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
o-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*77*	*83*	*61-118*			
MATRIX SPIKES											
Laboratory ID:	10-217-06										
	MS	MSD	MS	MSD		MS	MSD				
Benzene	**46.0**	**45.7**	50.0	50.0	ND	**92**	**91**	80-120	1	13	
Toluene	**45.7**	**45.1**	50.0	50.0	ND	**91**	**90**	81-115	1	14	
Ethyl Benzene	**46.4**	**46.3**	50.0	50.0	ND	**93**	**93**	81-114	0	12	
m,p-Xylene	**43.7**	**43.3**	50.0	50.0	ND	**87**	**87**	81-114	1	13	
o-Xylene	**45.0**	**44.9**	50.0	50.0	ND	**90**	**90**	81-113	0	11	
Surrogate:											
Fluorobenzene						*93*	*95*	*61-118*			

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

NWTPH-Gx

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-12-6.7**					
Laboratory ID:	10-187-06					
Gasoline	**ND**	7.3	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*99*	*63-124*				

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

NWTPH-Gx
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1024S2					
Gasoline	**ND**	5.0	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*92*	*63-124*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-220-01										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*84*	*88*	*63-124*			

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-18-GW**					
Laboratory ID:	10-187-02					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	10-19-16	10-19-16	
Lube Oil Range Organics	**ND**	0.42	NWTPH-Dx	10-19-16	10-19-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*95*	*50-150*				
Client ID:	**F-17-GW**					
Laboratory ID:	10-187-04					
Diesel Range Organics	**0.85**	0.26	NWTPH-Dx	10-19-16	10-19-16	M
Lube Oil Range Organics	**ND**	0.42	NWTPH-Dx	10-19-16	10-19-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*101*	*50-150*				
Client ID:	**F-16-GW**					
Laboratory ID:	10-187-05					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	10-19-16	10-19-16	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	10-19-16	10-19-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*100*	*50-150*				
Client ID:	**F-12-GW**					
Laboratory ID:	10-187-07					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	10-19-16	10-19-16	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	10-19-16	10-19-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1019W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	10-19-16	10-19-16	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	10-19-16	10-19-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*102*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-138-01										
	ORIG	DUP									
Diesel Range Organics	**0.268**	**0.219**	NA	NA		NA		NA	20	NA	N
Lube Oil	**1.03**	**0.577**	NA	NA		NA		NA	56	NA	
Surrogate:											
o-Terphenyl						*103*	*101*	*50-150*			

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-12-6.7**					
Laboratory ID:	10-187-06					
Diesel Range Organics	**ND**	29	NWTPH-Dx	10-26-16	10-26-16	
Lube Oil Range Organics	**ND**	58	NWTPH-Dx	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*90*	*50-150*				

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1026S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	10-26-16	10-26-16	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*102*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-187-06										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*90*	*90*	*50-150*			

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

VOLATILES EPA 8260C
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-12-GW**					
Laboratory ID:	10-187-07					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Chloromethane	ND	1.0	EPA 8260C	10-19-16	10-19-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Bromomethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Chloroethane	ND	1.0	EPA 8260C	10-19-16	10-19-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Acetone	ND	5.0	EPA 8260C	10-19-16	10-19-16	
Iodomethane	ND	1.0	EPA 8260C	10-19-16	10-19-16	
Carbon Disulfide	0.22	0.20	EPA 8260C	10-19-16	10-19-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-19-16	10-19-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-19-16	10-19-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
2-Butanone	ND	5.0	EPA 8260C	10-19-16	10-19-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Chloroform	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Benzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Trichloroethene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Dibromomethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
2-Chloroethyl Vinyl Ether	ND	1.6	EPA 8260C	10-19-16	10-19-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-19-16	10-19-16	
Toluene	ND	1.0	EPA 8260C	10-19-16	10-19-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-19-16	10-19-16	

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
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Project: 1071-014

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-12-GW**					
Laboratory ID:	10-187-07					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Tetrachloroethene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
2-Hexanone	ND	2.0	EPA 8260C	10-19-16	10-19-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-19-16	10-19-16	
o-Xylene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Styrene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Bromoform	ND	1.0	EPA 8260C	10-19-16	10-19-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Bromobenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	10-19-16	10-19-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Naphthalene	ND	1.0	EPA 8260C	10-19-16	10-19-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*77-129*				
Toluene-d8	*102*	*80-127*				
4-Bromofluorobenzene	*95*	*80-125*				

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1019W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Chloromethane	ND	1.0	EPA 8260C	10-19-16	10-19-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Bromomethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Chloroethane	ND	1.0	EPA 8260C	10-19-16	10-19-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Acetone	ND	5.0	EPA 8260C	10-19-16	10-19-16	
Iodomethane	ND	1.0	EPA 8260C	10-19-16	10-19-16	
Carbon Disulfide	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-19-16	10-19-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-19-16	10-19-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
2-Butanone	ND	5.0	EPA 8260C	10-19-16	10-19-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Chloroform	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Benzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Trichloroethene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Dibromomethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
2-Chloroethyl Vinyl Ether	ND	1.6	EPA 8260C	10-19-16	10-19-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-19-16	10-19-16	
Toluene	ND	1.0	EPA 8260C	10-19-16	10-19-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-19-16	10-19-16	

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1019W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Tetrachloroethene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
2-Hexanone	ND	2.0	EPA 8260C	10-19-16	10-19-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-19-16	10-19-16	
o-Xylene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Styrene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Bromoform	ND	1.0	EPA 8260C	10-19-16	10-19-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Bromobenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-19-16	10-19-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	10-19-16	10-19-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Naphthalene	ND	1.0	EPA 8260C	10-19-16	10-19-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	10-19-16	10-19-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*106*	*77-129*				
Toluene-d8	*101*	*80-127*				
4-Bromofluorobenzene	*96*	*80-125*				

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1019W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.1**	**9.11**	10.0	10.0	101	91	63-127	10	17	
Benzene	**9.81**	**9.61**	10.0	10.0	98	96	76-121	2	12	
Trichloroethene	**8.68**	**8.44**	10.0	10.0	87	84	64-114	3	15	
Toluene	**9.10**	**8.96**	10.0	10.0	91	90	82-115	2	13	
Chlorobenzene	**9.02**	**8.97**	10.0	10.0	90	90	80-115	1	14	
Surrogate:										
Dibromofluoromethane					*103*	*107*	*77-129*			
Toluene-d8					*101*	*102*	*80-127*			
4-Bromofluorobenzene					*97*	*97*	*80-125*			

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

VOLATILES EPA 8260C
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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-12-6.7**					
Laboratory ID:	10-187-06					
Dichlorodifluoromethane	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Chloromethane	ND	0.0081	EPA 8260C	10-20-16	10-20-16	
Vinyl Chloride	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Bromomethane	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Chloroethane	ND	0.0081	EPA 8260C	10-20-16	10-20-16	
Trichlorofluoromethane	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
1,1-Dichloroethene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Acetone	0.050	0.0081	EPA 8260C	10-20-16	10-20-16	
Iodomethane	ND	0.0081	EPA 8260C	10-20-16	10-20-16	
Carbon Disulfide	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Methylene Chloride	ND	0.0081	EPA 8260C	10-20-16	10-20-16	
(trans) 1,2-Dichloroethene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Methyl t-Butyl Ether	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
1,1-Dichloroethane	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Vinyl Acetate	ND	0.0081	EPA 8260C	10-20-16	10-20-16	
2,2-Dichloropropane	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
(cis) 1,2-Dichloroethene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
2-Butanone	0.017	0.0081	EPA 8260C	10-20-16	10-20-16	
Bromochloromethane	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Chloroform	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
1,1,1-Trichloroethane	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Carbon Tetrachloride	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
1,1-Dichloropropene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Benzene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
1,2-Dichloroethane	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Trichloroethene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
1,2-Dichloropropane	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Dibromomethane	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Bromodichloromethane	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
2-Chloroethyl Vinyl Ether	ND	0.0081	EPA 8260C	10-20-16	10-20-16	
(cis) 1,3-Dichloropropene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Methyl Isobutyl Ketone	ND	0.0081	EPA 8260C	10-20-16	10-20-16	
Toluene	ND	0.0081	EPA 8260C	10-20-16	10-20-16	
(trans) 1,3-Dichloropropene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-12-6.7**					
Laboratory ID:	10-187-06					
1,1,2-Trichloroethane	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Tetrachloroethene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
1,3-Dichloropropane	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
2-Hexanone	ND	0.0081	EPA 8260C	10-20-16	10-20-16	
Dibromochloromethane	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
1,2-Dibromoethane	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Chlorobenzene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
1,1,1,2-Tetrachloroethane	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Ethylbenzene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
m,p-Xylene	ND	0.0033	EPA 8260C	10-20-16	10-20-16	
o-Xylene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Styrene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Bromoform	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Isopropylbenzene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Bromobenzene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
1,1,2,2-Tetrachloroethane	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
1,2,3-Trichloropropane	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
n-Propylbenzene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
2-Chlorotoluene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
4-Chlorotoluene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
1,3,5-Trimethylbenzene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
tert-Butylbenzene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
1,2,4-Trimethylbenzene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
sec-Butylbenzene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
1,3-Dichlorobenzene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
p-Isopropyltoluene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
1,4-Dichlorobenzene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
1,2-Dichlorobenzene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
n-Butylbenzene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
1,2-Dibromo-3-chloropropane	ND	0.0081	EPA 8260C	10-20-16	10-20-16	
1,2,4-Trichlorobenzene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Hexachlorobutadiene	ND	0.0081	EPA 8260C	10-20-16	10-20-16	
Naphthalene	ND	0.0081	EPA 8260C	10-20-16	10-20-16	
1,2,3-Trichlorobenzene	ND	0.0016	EPA 8260C	10-20-16	10-20-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*103*	*73-134*				
Toluene-d8	*102*	*81-124*				
4-Bromofluorobenzene	*103*	*80-131*				

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1020S3					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Chloromethane	ND	0.0050	EPA 8260C	10-20-16	10-20-16	
Vinyl Chloride	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Bromomethane	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Chloroethane	ND	0.0050	EPA 8260C	10-20-16	10-20-16	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Acetone	ND	0.0050	EPA 8260C	10-20-16	10-20-16	
Iodomethane	ND	0.0050	EPA 8260C	10-20-16	10-20-16	
Carbon Disulfide	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Methylene Chloride	ND	0.0050	EPA 8260C	10-20-16	10-20-16	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Vinyl Acetate	ND	0.0050	EPA 8260C	10-20-16	10-20-16	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
2-Butanone	ND	0.0050	EPA 8260C	10-20-16	10-20-16	
Bromochloromethane	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Chloroform	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Benzene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Trichloroethene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Dibromomethane	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Bromodichloromethane	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	10-20-16	10-20-16	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260C	10-20-16	10-20-16	
Toluene	ND	0.0050	EPA 8260C	10-20-16	10-20-16	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	

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METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1020S3					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Tetrachloroethene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
2-Hexanone	ND	0.0050	EPA 8260C	10-20-16	10-20-16	
Dibromochloromethane	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Chlorobenzene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Ethylbenzene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
m,p-Xylene	ND	0.0020	EPA 8260C	10-20-16	10-20-16	
o-Xylene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Styrene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Bromoform	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Isopropylbenzene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Bromobenzene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
n-Propylbenzene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
2-Chlorotoluene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
4-Chlorotoluene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
tert-Butylbenzene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
sec-Butylbenzene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
p-Isopropyltoluene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
n-Butylbenzene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	10-20-16	10-20-16	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	10-20-16	10-20-16	
Naphthalene	ND	0.0050	EPA 8260C	10-20-16	10-20-16	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	10-20-16	10-20-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*73-134*				
Toluene-d8	*106*	*81-124*				
4-Bromofluorobenzene	*105*	*80-131*				

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1020S2									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0422**	**0.0429**	0.0500	0.0500	84	86	66-127	2	15	
Benzene	**0.0451**	**0.0462**	0.0500	0.0500	90	92	76-122	2	15	
Trichloroethene	**0.0464**	**0.0465**	0.0500	0.0500	93	93	78-120	0	15	
Toluene	**0.0473**	**0.0478**	0.0500	0.0500	95	96	83-120	1	15	
Chlorobenzene	**0.0456**	**0.0470**	0.0500	0.0500	91	94	81-120	3	15	
Surrogate:										
Dibromofluoromethane					*97*	*100*	*73-134*			
Toluene-d8					*98*	*102*	*81-124*			
4-Bromofluorobenzene					*99*	*104*	*80-131*			

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-18-GW**					
Laboratory ID:	10-187-02					
Naphthalene	**ND**	0.095	EPA 8270D/SIM	10-18-16	10-19-16	
2-Methylnaphthalene	**ND**	0.095	EPA 8270D/SIM	10-18-16	10-19-16	
1-Methylnaphthalene	**ND**	0.095	EPA 8270D/SIM	10-18-16	10-19-16	
Acenaphthylene	**ND**	0.095	EPA 8270D/SIM	10-18-16	10-19-16	
Acenaphthene	**ND**	0.095	EPA 8270D/SIM	10-18-16	10-19-16	
Fluorene	**ND**	0.095	EPA 8270D/SIM	10-18-16	10-19-16	
Phenanthrene	**ND**	0.095	EPA 8270D/SIM	10-18-16	10-19-16	
Anthracene	**ND**	0.095	EPA 8270D/SIM	10-18-16	10-19-16	
Fluoranthene	**ND**	0.095	EPA 8270D/SIM	10-18-16	10-19-16	
Pyrene	**ND**	0.095	EPA 8270D/SIM	10-18-16	10-19-16	
Benzo[a]anthracene	**ND**	0.0095	EPA 8270D/SIM	10-18-16	10-19-16	
Chrysene	**ND**	0.0095	EPA 8270D/SIM	10-18-16	10-19-16	
Benzo[b]fluoranthene	**ND**	0.0095	EPA 8270D/SIM	10-18-16	10-19-16	
Benzo(j,k)fluoranthene	**ND**	0.0095	EPA 8270D/SIM	10-18-16	10-19-16	
Benzo[a]pyrene	**ND**	0.0095	EPA 8270D/SIM	10-18-16	10-19-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0095	EPA 8270D/SIM	10-18-16	10-19-16	
Dibenz[a,h]anthracene	**ND**	0.0095	EPA 8270D/SIM	10-18-16	10-19-16	
Benzo[g,h,i]perylene	**ND**	0.0095	EPA 8270D/SIM	10-18-16	10-19-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*64*	*30 - 124*				
Pyrene-d10	*81*	*40 - 143*				
Terphenyl-d14	*75*	*27 - 127*				

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-17-GW**					
Laboratory ID:	10-187-04					
Naphthalene	**42**	1.9	EPA 8270D/SIM	10-18-16	10-20-16	
2-Methylnaphthalene	**23**	1.9	EPA 8270D/SIM	10-18-16	10-20-16	
1-Methylnaphthalene	**14**	1.9	EPA 8270D/SIM	10-18-16	10-20-16	
Acenaphthylene	**ND**	0.096	EPA 8270D/SIM	10-18-16	10-19-16	
Acenaphthene	**0.20**	0.096	EPA 8270D/SIM	10-18-16	10-19-16	
Fluorene	**0.37**	0.096	EPA 8270D/SIM	10-18-16	10-19-16	
Phenanthrene	**0.38**	0.096	EPA 8270D/SIM	10-18-16	10-19-16	
Anthracene	**ND**	0.096	EPA 8270D/SIM	10-18-16	10-19-16	
Fluoranthene	**ND**	0.096	EPA 8270D/SIM	10-18-16	10-19-16	
Pyrene	**ND**	0.096	EPA 8270D/SIM	10-18-16	10-19-16	
Benzo[a]anthracene	**ND**	0.0096	EPA 8270D/SIM	10-18-16	10-19-16	
Chrysene	**ND**	0.0096	EPA 8270D/SIM	10-18-16	10-19-16	
Benzo[b]fluoranthene	**ND**	0.0096	EPA 8270D/SIM	10-18-16	10-19-16	
Benzo(j,k)fluoranthene	**ND**	0.0096	EPA 8270D/SIM	10-18-16	10-19-16	
Benzo[a]pyrene	**ND**	0.0096	EPA 8270D/SIM	10-18-16	10-19-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0096	EPA 8270D/SIM	10-18-16	10-19-16	
Dibenz[a,h]anthracene	**ND**	0.0096	EPA 8270D/SIM	10-18-16	10-19-16	
Benzo[g,h,i]perylene	**ND**	0.0096	EPA 8270D/SIM	10-18-16	10-19-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*67*	*30 - 124*				
Pyrene-d10	*86*	*40 - 143*				
Terphenyl-d14	*82*	*27 - 127*				

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-16-GW**					
Laboratory ID:	10-187-05					
Naphthalene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
2-Methylnaphthalene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
1-Methylnaphthalene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Acenaphthylene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Acenaphthene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Fluorene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Phenanthrene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Anthracene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Fluoranthene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Pyrene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[a]anthracene	**ND**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Chrysene	**ND**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[b]fluoranthene	**ND**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo(j,k)fluoranthene	**ND**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[a]pyrene	**ND**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Indeno(1,2,3-c,d)pyrene	**0.014**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Dibenz[a,h]anthracene	**0.014**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[g,h,i]perylene	**0.016**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*62*	*30 - 124*				
Pyrene-d10	*79*	*40 - 143*				
Terphenyl-d14	*75*	*27 - 127*				

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-12-GW**					
Laboratory ID:	10-187-07					
Naphthalene	**ND**	0.096	EPA 8270D/SIM	10-18-16	10-19-16	
2-Methylnaphthalene	**ND**	0.096	EPA 8270D/SIM	10-18-16	10-19-16	
1-Methylnaphthalene	**ND**	0.096	EPA 8270D/SIM	10-18-16	10-19-16	
Acenaphthylene	**ND**	0.096	EPA 8270D/SIM	10-18-16	10-19-16	
Acenaphthene	**ND**	0.096	EPA 8270D/SIM	10-18-16	10-19-16	
Fluorene	**ND**	0.096	EPA 8270D/SIM	10-18-16	10-19-16	
Phenanthrene	**ND**	0.096	EPA 8270D/SIM	10-18-16	10-19-16	
Anthracene	**ND**	0.096	EPA 8270D/SIM	10-18-16	10-19-16	
Fluoranthene	**ND**	0.096	EPA 8270D/SIM	10-18-16	10-19-16	
Pyrene	**ND**	0.096	EPA 8270D/SIM	10-18-16	10-19-16	
Benzo[a]anthracene	**ND**	0.0096	EPA 8270D/SIM	10-18-16	10-19-16	
Chrysene	**ND**	0.0096	EPA 8270D/SIM	10-18-16	10-19-16	
Benzo[b]fluoranthene	**ND**	0.0096	EPA 8270D/SIM	10-18-16	10-19-16	
Benzo(j,k)fluoranthene	**ND**	0.0096	EPA 8270D/SIM	10-18-16	10-19-16	
Benzo[a]pyrene	**ND**	0.0096	EPA 8270D/SIM	10-18-16	10-19-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0096	EPA 8270D/SIM	10-18-16	10-19-16	
Dibenz[a,h]anthracene	**ND**	0.0096	EPA 8270D/SIM	10-18-16	10-19-16	
Benzo[g,h,i]perylene	**ND**	0.0096	EPA 8270D/SIM	10-18-16	10-19-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*66*	*30 - 124*				
Pyrene-d10	*81*	*40 - 143*				
Terphenyl-d14	*78*	*27 - 127*				

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1018W1					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	10-18-16	10-18-16	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	10-18-16	10-18-16	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	10-18-16	10-18-16	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	10-18-16	10-18-16	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	10-18-16	10-18-16	
Fluorene	**ND**	0.10	EPA 8270D/SIM	10-18-16	10-18-16	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	10-18-16	10-18-16	
Anthracene	**ND**	0.10	EPA 8270D/SIM	10-18-16	10-18-16	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	10-18-16	10-18-16	
Pyrene	**ND**	0.10	EPA 8270D/SIM	10-18-16	10-18-16	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	10-18-16	10-18-16	
Chrysene	**ND**	0.010	EPA 8270D/SIM	10-18-16	10-18-16	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	10-18-16	10-18-16	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	10-18-16	10-18-16	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	10-18-16	10-18-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	10-18-16	10-18-16	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	10-18-16	10-18-16	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	10-18-16	10-18-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*69*	*30 - 124*				
Pyrene-d10	*91*	*40 - 143*				
Terphenyl-d14	*92*	*27 - 127*				

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1020W1					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Fluorene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Anthracene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Pyrene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Chrysene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*47*	*30 - 124*				
Pyrene-d10	*75*	*40 - 143*				
Terphenyl-d14	*73*	*27 - 127*				

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

PAHs EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1018W1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.372**	**0.328**	0.500	0.500	74	66	29 - 101	13	47	
Acenaphthylene	**0.199**	**0.179**	0.500	0.500	40	36	20 - 117	11	50	
Acenaphthene	**0.417**	**0.374**	0.500	0.500	83	75	37 - 109	11	43	
Fluorene	**0.451**	**0.422**	0.500	0.500	90	84	47 - 108	7	34	
Phenanthrene	**0.462**	**0.460**	0.500	0.500	92	92	49 - 109	0	28	
Anthracene	**0.497**	**0.532**	0.500	0.500	99	106	34 - 140	7	32	
Fluoranthene	**0.513**	**0.517**	0.500	0.500	103	103	45 - 120	1	39	
Pyrene	**0.570**	**0.536**	0.500	0.500	114	107	42 - 133	6	39	
Benzo[a]anthracene	**0.474**	**0.488**	0.500	0.500	95	98	71 - 117	3	28	
Chrysene	**0.463**	**0.459**	0.500	0.500	93	92	53 - 110	1	25	
Benzo[b]fluoranthene	**0.540**	**0.568**	0.500	0.500	108	114	53 - 123	5	37	
Benzo(j,k)fluoranthene	**0.488**	**0.490**	0.500	0.500	98	98	52 - 119	0	41	
Benzo[a]pyrene	**0.312**	**0.383**	0.500	0.500	62	77	37 - 129	20	33	
Indeno(1,2,3-c,d)pyrene	**0.500**	**0.500**	0.500	0.500	100	100	45 - 128	0	31	
Dibenz[a,h]anthracene	**0.520**	**0.526**	0.500	0.500	104	105	54 - 120	1	30	
Benzo[g,h,i]perylene	**0.484**	**0.477**	0.500	0.500	97	95	49 - 117	1	29	
Surrogate:										
2-Fluorobiphenyl					*82*	*66*	*30 - 124*			
Pyrene-d10					*93*	*95*	*40 - 143*			
Terphenyl-d14					*92*	*92*	*27 - 127*			

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

PAHs EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1020W1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.320**	**0.242**	0.500	0.500	64	48	29 - 101	28	47	
Acenaphthylene	**0.271**	**0.248**	0.500	0.500	54	50	20 - 117	9	50	
Acenaphthene	**0.339**	**0.278**	0.500	0.500	68	56	37 - 109	20	43	
Fluorene	**0.380**	**0.340**	0.500	0.500	76	68	47 - 108	11	34	
Phenanthrene	**0.376**	**0.339**	0.500	0.500	75	68	49 - 109	10	28	
Anthracene	**0.490**	**0.466**	0.500	0.500	98	93	34 - 140	5	32	
Fluoranthene	**0.458**	**0.422**	0.500	0.500	92	84	45 - 120	8	39	
Pyrene	**0.455**	**0.422**	0.500	0.500	91	84	42 - 133	8	39	
Benzo[a]anthracene	**0.417**	**0.374**	0.500	0.500	83	75	71 - 117	11	28	
Chrysene	**0.433**	**0.408**	0.500	0.500	87	82	53 - 110	6	25	
Benzo[b]fluoranthene	**0.465**	**0.412**	0.500	0.500	93	82	53 - 123	12	37	
Benzo(j,k)fluoranthene	**0.456**	**0.416**	0.500	0.500	91	83	52 - 119	9	41	
Benzo[a]pyrene	**0.431**	**0.418**	0.500	0.500	86	84	37 - 129	3	33	
Indeno(1,2,3-c,d)pyrene	**0.417**	**0.382**	0.500	0.500	83	76	45 - 128	9	31	
Dibenz[a,h]anthracene	**0.429**	**0.399**	0.500	0.500	86	80	54 - 120	7	30	
Benzo[g,h,i]perylene	**0.407**	**0.368**	0.500	0.500	81	74	49 - 117	10	29	
Surrogate:										
2-Fluorobiphenyl					*53*	*44*	*30 - 124*			
Pyrene-d10					*84*	*79*	*40 - 143*			
Terphenyl-d14					*83*	*77*	*27 - 127*			

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

DISSOLVED LEAD
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	10-187-02					
Client ID:	**F-18-GW**					
Lead	**ND**	1.0	200.8		10-20-16	
Lab ID:	10-187-04					
Client ID:	**F-17-GW**					
Lead	**ND**	1.0	200.8		10-20-16	
Lab ID:	10-187-05					
Client ID:	**F-16-GW**					
Lead	**ND**	1.0	200.8		10-20-16	

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

DISSOLVED LEAD
EPA 200.8
METHOD BLANK QUALITY CONTROL

Date Analyzed: 10-20-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB1020D1

Analyte	Method	Result	PQL
Lead	200.8	**ND**	1.0

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

DISSOLVED LEAD
EPA 200.8
DUPLICATE QUALITY CONTROL

Date Analyzed: 10-20-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-189-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Lead	**ND**	**ND**	NA	1.0	

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

DISSOLVED LEAD
EPA 200.8
MS/MSD QUALITY CONTROL

Date Analyzed: 10-20-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-189-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Lead	200	**187**	94	**188**	94	0	

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

TOTAL SUSPENDED SOLIDS
SM 2540D

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-18-GW**					
Laboratory ID:	10-187-02					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-20-16	10-21-16	
Client ID:	**F-17-GW**					
Laboratory ID:	10-187-04					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-20-16	10-21-16	
Client ID:	**F-16-GW**					
Laboratory ID:	10-187-05					
Total Suspended Solids	**16**	4.0	SM 2540D	10-20-16	10-21-16	
Client ID:	**F-12-GW**					
Laboratory ID:	10-187-07					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-20-16	10-21-16	

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

TOTAL SUSPENDED SOLIDS
SM 2540D
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1020W1					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-20-16	10-21-16	

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	10-187-02								
	ORIG	DUP							
Total Suspended Solids	**ND**	**ND**	NA	NA	NA	NA	NA	20	
SPIKE BLANK									
Laboratory ID:	SB1020W1								
	SB		SB		SB				
Total Suspended Solids	**89.0**		100	NA	89	78-113	NA	NA	

Date of Report: October 27, 2016
Samples Submitted: October 18, 2016
Laboratory Reference: 1610-187
Project: 1071-014

% MOISTURE

Date Analyzed: 10-20-16

Client ID	Lab ID	% Moisture
F-12-6.7	10-187-06	13

OnSite Environmental Inc.

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.

Z -

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

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 10-187

Company: Farallon
Project Number: 1071-014
Project Name: South Norfolk Street & East Marginal Way
Project Manager: Scott Allin
Sampled by: Ryan Ostrom

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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	DISSOLVED * Lead (6000/7000 Series	TSS			% Moisture
1	F-18-8.0	10/17/16	0910	S	5																						
2	F-18-GW		0940	W	12		X		X					X									X	X			
3	F-17-9.7		1050	S	5																						
4	F-17-GW		1115	W	12		X		X					X									X	X			
5	F-16-GW		1230	W	12		X		X					X									X	X			
6	F-12-6.7		1355	S	5			X	X	X																	X
7	F-12-GW		1430	W	9			X	X	X				X								NO DB	X	X			
	RO																										

	Signature	Company	Date	Time
Relinquished	Ryan Ostrom	Farallon	10/17/16	1700
Received		CORE	10/18/16	1300
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
Please Hold Soil Samples

* Field Filtered.

(X) Added 10/20/16. DB (STA)

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

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

October 28, 2016

Scott Allin
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 1071-014
Laboratory Reference No. 1610-198

Dear Scott:

Enclosed are the analytical results and associated quality control data for samples submitted on October 19, 2016.

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 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

Case Narrative

Samples were collected on October 18, 2016 and received by the laboratory on October 19, 2016. 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.

NWTPH Gx (soil) Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Volatiles EPA 8260C (soil) Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Volatiles EPA 8260C (water) Analysis

Some MTCA Method A cleanup levels are non-achievable for sample F-14-GW due to sample matrix effects.

Total Suspended Solids SM 2540D Analysis

Samples received were field filtered.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

NWTPH-Gx

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-11-8.0**					
Laboratory ID:	10-198-01					
Gasoline	**ND**	5.8	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*101*	*63-124*				
Client ID:	**F-13-2.5**					
Laboratory ID:	10-198-04					
Gasoline	**ND**	5.9	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*91*	*63-124*				
Client ID:	**F-14-6.0**					
Laboratory ID:	10-198-06					
Gasoline	**ND**	5.4	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*90*	*63-124*				
Client ID:	**F-20-7.0**					
Laboratory ID:	10-198-10					
Gasoline	**ND**	8.8	NWTPH-Gx	10-24-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*80*	*63-124*				

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

NWTPH-Gx
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1024S2					
Gasoline	**ND**	5.0	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*92*	*63-124*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-220-01										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*84*	*88*	*63-124*			

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

NWTPH-Gx

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-11-GW**					
Laboratory ID:	10-198-03					
Gasoline	**ND**	100	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*61-118*				
Client ID:	**F-13-GW**					
Laboratory ID:	10-198-05					
Gasoline	**ND**	100	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*85*	*61-118*				
Client ID:	**F-14-GW**					
Laboratory ID:	10-198-08					
Gasoline	**ND**	100	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*61-118*				
Client ID:	**F-20-GW**					
Laboratory ID:	10-198-11					
Gasoline	**ND**	100	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*72*	*61-118*				

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

NWTPH-Gx
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1024W1					
Gasoline	**ND**	100	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*78*	*61-118*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-198-11										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*72*	*81*	*61-118*			

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Project: 1071-014

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-11-8.0**					
Laboratory ID:	10-198-01					
Diesel Range Organics	**ND**	31	NWTPH-Dx	10-24-16	10-25-16	
Lube Oil Range Organics	**ND**	63	NWTPH-Dx	10-24-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*107*	*50-150*				
Client ID:	**F-13-2.5**					
Laboratory ID:	10-198-04					
Diesel Range Organics	**ND**	26	NWTPH-Dx	10-24-16	10-25-16	
Lube Oil Range Organics	**ND**	52	NWTPH-Dx	10-24-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*115*	*50-150*				
Client ID:	**F-14-6.0**					
Laboratory ID:	10-198-06					
Diesel Range Organics	**ND**	28	NWTPH-Dx	10-24-16	10-25-16	
Lube Oil Range Organics	**ND**	56	NWTPH-Dx	10-24-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*107*	*50-150*				
Client ID:	**F-20-7.0**					
Laboratory ID:	10-198-10					
Diesel Range Organics	**ND**	34	NWTPH-Dx	10-24-16	10-25-16	
Lube Oil Range Organics	**ND**	68	NWTPH-Dx	10-24-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*91*	*50-150*				

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1024S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	10-24-16	10-25-16	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	10-24-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*111*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-181-01										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil	**276**	**245**	NA	NA		NA		NA	12	NA	
Surrogate:											
o-Terphenyl						*101*	*116*	*50-150*			

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Samples Submitted: October 19, 2016
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Project: 1071-014

NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-11-GW**					
Laboratory ID:	10-198-03					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	10-25-16	10-25-16	
Lube Oil Range Organics	**ND**	0.42	NWTPH-Dx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*91*	*50-150*				
Client ID:	**F-14-GW**					
Laboratory ID:	10-198-08					
Diesel Range Organics	**ND**	0.27	NWTPH-Dx	10-25-16	10-25-16	
Lube Oil Range Organics	**ND**	0.43	NWTPH-Dx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*91*	*50-150*				

Date of Report: October 28, 2016
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Project: 1071-014

NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1025W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	10-25-16	10-25-16	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-217-03										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*104*	*91*	*50-150*			

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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-11-8.0**					
Laboratory ID:	10-198-01					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Chloromethane	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
Vinyl Chloride	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Bromomethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Chloroethane	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Acetone	ND	0.017	EPA 8260C	10-26-16	10-26-16	
Iodomethane	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
Carbon Disulfide	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Methylene Chloride	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Vinyl Acetate	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
2-Butanone	ND	0.0069	EPA 8260C	10-26-16	10-26-16	
Bromochloromethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Chloroform	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Benzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Trichloroethene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Dibromomethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Bromodichloromethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
2-Chloroethyl Vinyl Ether	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Methyl Isobutyl Ketone	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
Toluene	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-11-8.0**					
Laboratory ID:	10-198-01					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Tetrachloroethene	0.0011	0.0011	EPA 8260C	10-26-16	10-26-16	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
2-Hexanone	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
Dibromochloromethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Chlorobenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Ethylbenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
m,p-Xylene	ND	0.0022	EPA 8260C	10-26-16	10-26-16	
o-Xylene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Styrene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Bromoform	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Isopropylbenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Bromobenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
n-Propylbenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
2-Chlorotoluene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
4-Chlorotoluene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
tert-Butylbenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
sec-Butylbenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
p-Isopropyltoluene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
n-Butylbenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,2-Dibromo-3-chloropropane	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Hexachlorobutadiene	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
Naphthalene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*102*	*73-134*				
Toluene-d8	*103*	*81-124*				
4-Bromofluorobenzene	*96*	*80-131*				

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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-13-2.5**					
Laboratory ID:	10-198-04					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Chloromethane	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
Vinyl Chloride	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Bromomethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Chloroethane	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Acetone	ND	0.017	EPA 8260C	10-26-16	10-26-16	
Iodomethane	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
Carbon Disulfide	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Methylene Chloride	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Vinyl Acetate	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
2-Butanone	ND	0.0069	EPA 8260C	10-26-16	10-26-16	
Bromochloromethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Chloroform	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Benzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Trichloroethene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Dibromomethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Bromodichloromethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
2-Chloroethyl Vinyl Ether	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Methyl Isobutyl Ketone	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
Toluene	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-13-2.5**					
Laboratory ID:	10-198-04					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Tetrachloroethene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
2-Hexanone	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
Dibromochloromethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Chlorobenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Ethylbenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
m,p-Xylene	ND	0.0022	EPA 8260C	10-26-16	10-26-16	
o-Xylene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Styrene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Bromoform	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Isopropylbenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Bromobenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
n-Propylbenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
2-Chlorotoluene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
4-Chlorotoluene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
tert-Butylbenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
sec-Butylbenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
p-Isopropyltoluene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
n-Butylbenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,2-Dibromo-3-chloropropane	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Hexachlorobutadiene	ND	0.0055	EPA 8260C	10-26-16	10-26-16	
Naphthalene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*113*	*73-134*				
Toluene-d8	*110*	*81-124*				
4-Bromofluorobenzene	*103*	*80-131*				

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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-14-6.0**					
Laboratory ID:	10-198-06					
Dichlorodifluoromethane	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
Chloromethane	ND	0.0046	EPA 8260C	10-26-16	10-26-16	
Vinyl Chloride	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
Bromomethane	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
Chloroethane	ND	0.0046	EPA 8260C	10-26-16	10-26-16	
Trichlorofluoromethane	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
1,1-Dichloroethene	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
Acetone	0.10	0.014	EPA 8260C	10-26-16	10-26-16	Y
Iodomethane	ND	0.0046	EPA 8260C	10-26-16	10-26-16	
Carbon Disulfide	0.0015	0.00093	EPA 8260C	10-26-16	10-26-16	
Methylene Chloride	ND	0.0046	EPA 8260C	10-26-16	10-26-16	
(trans) 1,2-Dichloroethene	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
Methyl t-Butyl Ether	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
1,1-Dichloroethane	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
Vinyl Acetate	ND	0.0046	EPA 8260C	10-26-16	10-26-16	
2,2-Dichloropropane	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
(cis) 1,2-Dichloroethene	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
2-Butanone	0.038	0.0058	EPA 8260C	10-26-16	10-26-16	Y
Bromochloromethane	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
Chloroform	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
1,1,1-Trichloroethane	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
Carbon Tetrachloride	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
1,1-Dichloropropene	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
Benzene	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
1,2-Dichloroethane	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
Trichloroethene	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
1,2-Dichloropropane	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
Dibromomethane	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
Bromodichloromethane	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
2-Chloroethyl Vinyl Ether	ND	0.0046	EPA 8260C	10-26-16	10-26-16	
(cis) 1,3-Dichloropropene	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
Methyl Isobutyl Ketone	ND	0.0046	EPA 8260C	10-26-16	10-26-16	
Toluene	ND	0.0046	EPA 8260C	10-26-16	10-26-16	
(trans) 1,3-Dichloropropene	ND	0.00093	EPA 8260C	10-26-16	10-26-16	

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-14-6.0**					
Laboratory ID:	10-198-06					
1,1,2-Trichloroethane	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
Tetrachloroethene	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
1,3-Dichloropropane	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
2-Hexanone	ND	0.0046	EPA 8260C	10-26-16	10-26-16	
Dibromochloromethane	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
1,2-Dibromoethane	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
Chlorobenzene	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
1,1,1,2-Tetrachloroethane	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
Ethylbenzene	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
m,p-Xylene	ND	0.0019	EPA 8260C	10-26-16	10-26-16	
o-Xylene	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
Styrene	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
Bromoform	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
Isopropylbenzene	ND	0.00093	EPA 8260C	10-26-16	10-26-16	
Bromobenzene	ND	0.056	EPA 8260C	10-26-16	10-26-16	
1,1,2,2-Tetrachloroethane	ND	0.056	EPA 8260C	10-26-16	10-26-16	
1,2,3-Trichloropropane	ND	0.056	EPA 8260C	10-26-16	10-26-16	
n-Propylbenzene	ND	0.056	EPA 8260C	10-26-16	10-26-16	
2-Chlorotoluene	ND	0.056	EPA 8260C	10-26-16	10-26-16	
4-Chlorotoluene	ND	0.056	EPA 8260C	10-26-16	10-26-16	
1,3,5-Trimethylbenzene	ND	0.056	EPA 8260C	10-26-16	10-26-16	
tert-Butylbenzene	ND	0.056	EPA 8260C	10-26-16	10-26-16	
1,2,4-Trimethylbenzene	ND	0.056	EPA 8260C	10-26-16	10-26-16	
sec-Butylbenzene	ND	0.056	EPA 8260C	10-26-16	10-26-16	
1,3-Dichlorobenzene	ND	0.056	EPA 8260C	10-26-16	10-26-16	
p-Isopropyltoluene	ND	0.056	EPA 8260C	10-26-16	10-26-16	
1,4-Dichlorobenzene	ND	0.056	EPA 8260C	10-26-16	10-26-16	
1,2-Dichlorobenzene	ND	0.056	EPA 8260C	10-26-16	10-26-16	
n-Butylbenzene	ND	0.056	EPA 8260C	10-26-16	10-26-16	
1,2-Dibromo-3-chloropropane	ND	0.28	EPA 8260C	10-26-16	10-26-16	
1,2,4-Trichlorobenzene	ND	0.056	EPA 8260C	10-26-16	10-26-16	
Hexachlorobutadiene	ND	0.28	EPA 8260C	10-26-16	10-26-16	
Naphthalene	ND	0.056	EPA 8260C	10-26-16	10-26-16	
1,2,3-Trichlorobenzene	ND	0.056	EPA 8260C	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*114*	*73-134*				
Toluene-d8	*107*	*81-124*				
4-Bromofluorobenzene	*93*	*80-131*				

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-20-7.0**					
Laboratory ID:	10-198-10					
Dichlorodifluoromethane	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Chloromethane	ND	0.0074	EPA 8260C	10-26-16	10-26-16	
Vinyl Chloride	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Bromomethane	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Chloroethane	ND	0.0074	EPA 8260C	10-26-16	10-26-16	
Trichlorofluoromethane	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
1,1-Dichloroethene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Acetone	0.13	0.022	EPA 8260C	10-26-16	10-26-16	Y
Iodomethane	ND	0.0074	EPA 8260C	10-26-16	10-26-16	
Carbon Disulfide	0.0020	0.0015	EPA 8260C	10-26-16	10-26-16	
Methylene Chloride	ND	0.0074	EPA 8260C	10-26-16	10-26-16	
(trans) 1,2-Dichloroethene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Methyl t-Butyl Ether	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
1,1-Dichloroethane	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Vinyl Acetate	ND	0.0074	EPA 8260C	10-26-16	10-26-16	
2,2-Dichloropropane	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
(cis) 1,2-Dichloroethene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
2-Butanone	0.058	0.0094	EPA 8260C	10-26-16	10-26-16	Y
Bromochloromethane	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Chloroform	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
1,1,1-Trichloroethane	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Carbon Tetrachloride	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
1,1-Dichloropropene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Benzene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
1,2-Dichloroethane	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Trichloroethene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
1,2-Dichloropropane	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Dibromomethane	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Bromodichloromethane	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
2-Chloroethyl Vinyl Ether	ND	0.0074	EPA 8260C	10-26-16	10-26-16	
(cis) 1,3-Dichloropropene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Methyl Isobutyl Ketone	ND	0.0074	EPA 8260C	10-26-16	10-26-16	
Toluene	ND	0.0074	EPA 8260C	10-26-16	10-26-16	
(trans) 1,3-Dichloropropene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-20-7.0**					
Laboratory ID:	10-198-10					
1,1,2-Trichloroethane	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Tetrachloroethene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
1,3-Dichloropropane	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
2-Hexanone	ND	0.0074	EPA 8260C	10-26-16	10-26-16	
Dibromochloromethane	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
1,2-Dibromoethane	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Chlorobenzene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
1,1,1,2-Tetrachloroethane	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Ethylbenzene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
m,p-Xylene	ND	0.0030	EPA 8260C	10-26-16	10-26-16	
o-Xylene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Styrene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Bromoform	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Isopropylbenzene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Bromobenzene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
1,1,2,2-Tetrachloroethane	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
1,2,3-Trichloropropane	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
n-Propylbenzene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
2-Chlorotoluene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
4-Chlorotoluene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
1,3,5-Trimethylbenzene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
tert-Butylbenzene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
1,2,4-Trimethylbenzene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
sec-Butylbenzene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
1,3-Dichlorobenzene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
p-Isopropyltoluene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
1,4-Dichlorobenzene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
1,2-Dichlorobenzene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
n-Butylbenzene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
1,2-Dibromo-3-chloropropane	ND	0.0074	EPA 8260C	10-26-16	10-26-16	
1,2,4-Trichlorobenzene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Hexachlorobutadiene	ND	0.0074	EPA 8260C	10-26-16	10-26-16	
Naphthalene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
1,2,3-Trichlorobenzene	ND	0.0015	EPA 8260C	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*113*	*73-134*				
Toluene-d8	*108*	*81-124*				
4-Bromofluorobenzene	*96*	*80-131*				

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1026S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Chloromethane	ND	0.0050	EPA 8260C	10-26-16	10-26-16	
Vinyl Chloride	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Bromomethane	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Chloroethane	ND	0.0050	EPA 8260C	10-26-16	10-26-16	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Acetone	ND	0.0077	EPA 8260C	10-26-16	10-26-16	
Iodomethane	ND	0.0050	EPA 8260C	10-26-16	10-26-16	
Carbon Disulfide	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Methylene Chloride	ND	0.0050	EPA 8260C	10-26-16	10-26-16	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Vinyl Acetate	ND	0.0050	EPA 8260C	10-26-16	10-26-16	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
2-Butanone	ND	0.0063	EPA 8260C	10-26-16	10-26-16	
Bromochloromethane	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Chloroform	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Benzene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Trichloroethene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Dibromomethane	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Bromodichloromethane	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	10-26-16	10-26-16	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260C	10-26-16	10-26-16	
Toluene	ND	0.0050	EPA 8260C	10-26-16	10-26-16	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
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Project: 1071-014

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1026S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Tetrachloroethene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
2-Hexanone	ND	0.0050	EPA 8260C	10-26-16	10-26-16	
Dibromochloromethane	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Chlorobenzene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Ethylbenzene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
m,p-Xylene	ND	0.0020	EPA 8260C	10-26-16	10-26-16	
o-Xylene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Styrene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Bromoform	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Isopropylbenzene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Bromobenzene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
n-Propylbenzene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
2-Chlorotoluene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
4-Chlorotoluene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
tert-Butylbenzene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
sec-Butylbenzene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
p-Isopropyltoluene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
n-Butylbenzene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	10-26-16	10-26-16	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	10-26-16	10-26-16	
Naphthalene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*111*	*73-134*				
Toluene-d8	*116*	*81-124*				
4-Bromofluorobenzene	*110*	*80-131*				

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1026S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0546**	**0.0546**	0.0500	0.0500	109	109	66-127	0	15	
Benzene	**0.0541**	**0.0548**	0.0500	0.0500	108	110	76-122	1	15	
Trichloroethene	**0.0505**	**0.0524**	0.0500	0.0500	101	105	78-120	4	15	
Toluene	**0.0500**	**0.0504**	0.0500	0.0500	100	101	83-120	1	15	
Chlorobenzene	**0.0515**	**0.0515**	0.0500	0.0500	103	103	81-120	0	15	
Surrogate:										
Dibromofluoromethane					*98*	*97*	*73-134*			
Toluene-d8					*99*	*101*	*81-124*			
4-Bromofluorobenzene					*95*	*97*	*80-131*			

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

VOLATILES EPA 8260C
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-11-GW**					
Laboratory ID:	10-198-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Chloromethane	ND	1.0	EPA 8260C	10-20-16	10-20-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Bromomethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Chloroethane	ND	1.0	EPA 8260C	10-20-16	10-20-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Acetone	ND	5.0	EPA 8260C	10-20-16	10-20-16	
Iodomethane	ND	1.0	EPA 8260C	10-20-16	10-20-16	
Carbon Disulfide	0.36	0.20	EPA 8260C	10-20-16	10-20-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-20-16	10-20-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-20-16	10-20-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
2-Butanone	ND	5.0	EPA 8260C	10-20-16	10-20-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Chloroform	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Benzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Trichloroethene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Dibromomethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
2-Chloroethyl Vinyl Ether	ND	1.8	EPA 8260C	10-20-16	10-20-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-20-16	10-20-16	
Toluene	ND	1.0	EPA 8260C	10-20-16	10-20-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-20-16	10-20-16	

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-11-GW**					
Laboratory ID:	10-198-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Tetrachloroethene	0.22	0.20	EPA 8260C	10-20-16	10-20-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
2-Hexanone	ND	2.0	EPA 8260C	10-20-16	10-20-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
o-Xylene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Styrene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Bromoform	ND	1.0	EPA 8260C	10-20-16	10-20-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Bromobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	10-20-16	10-20-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Naphthalene	ND	1.0	EPA 8260C	10-20-16	10-20-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*77-129*				
Toluene-d8	*99*	*80-127*				
4-Bromofluorobenzene	*96*	*80-125*				

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-13-GW**					
Laboratory ID:	10-198-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Chloromethane	ND	1.0	EPA 8260C	10-20-16	10-20-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Bromomethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Chloroethane	ND	1.0	EPA 8260C	10-20-16	10-20-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Acetone	7.1	5.0	EPA 8260C	10-20-16	10-20-16	
Iodomethane	ND	1.0	EPA 8260C	10-20-16	10-20-16	
Carbon Disulfide	0.52	0.20	EPA 8260C	10-20-16	10-20-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-20-16	10-20-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-20-16	10-20-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
2-Butanone	ND	5.0	EPA 8260C	10-20-16	10-20-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Chloroform	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Benzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Trichloroethene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Dibromomethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
2-Chloroethyl Vinyl Ether	ND	1.8	EPA 8260C	10-20-16	10-20-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-20-16	10-20-16	
Toluene	ND	1.0	EPA 8260C	10-20-16	10-20-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-20-16	10-20-16	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-13-GW**					
Laboratory ID:	10-198-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Tetrachloroethene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
2-Hexanone	ND	2.0	EPA 8260C	10-20-16	10-20-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
o-Xylene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Styrene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Bromoform	ND	1.0	EPA 8260C	10-20-16	10-20-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Bromobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	10-20-16	10-20-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Naphthalene	ND	1.0	EPA 8260C	10-20-16	10-20-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*104*	*77-129*				
Toluene-d8	*100*	*80-127*				
4-Bromofluorobenzene	*97*	*80-125*				

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Project: 1071-014

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-14-GW**					
Laboratory ID:	10-198-08					
Dichlorodifluoromethane	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Chloromethane	ND	2.0	EPA 8260C	10-20-16	10-20-16	
Vinyl Chloride	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Bromomethane	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Chloroethane	ND	2.0	EPA 8260C	10-20-16	10-20-16	
Trichlorofluoromethane	ND	0.40	EPA 8260C	10-20-16	10-20-16	
1,1-Dichloroethene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Acetone	ND	10	EPA 8260C	10-20-16	10-20-16	
Iodomethane	ND	2.0	EPA 8260C	10-20-16	10-20-16	
Carbon Disulfide	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Methylene Chloride	ND	2.0	EPA 8260C	10-20-16	10-20-16	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Methyl t-Butyl Ether	ND	0.40	EPA 8260C	10-20-16	10-20-16	
1,1-Dichloroethane	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Vinyl Acetate	ND	2.0	EPA 8260C	10-20-16	10-20-16	
2,2-Dichloropropane	ND	0.40	EPA 8260C	10-20-16	10-20-16	
(cis) 1,2-Dichloroethene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
2-Butanone	ND	10	EPA 8260C	10-20-16	10-20-16	
Bromochloromethane	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Chloroform	ND	0.40	EPA 8260C	10-20-16	10-20-16	
1,1,1-Trichloroethane	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Carbon Tetrachloride	ND	0.40	EPA 8260C	10-20-16	10-20-16	
1,1-Dichloropropene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Benzene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
1,2-Dichloroethane	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Trichloroethene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
1,2-Dichloropropane	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Dibromomethane	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Bromodichloromethane	ND	0.40	EPA 8260C	10-20-16	10-20-16	
2-Chloroethyl Vinyl Ether	ND	3.6	EPA 8260C	10-20-16	10-20-16	
(cis) 1,3-Dichloropropene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Methyl Isobutyl Ketone	ND	4.0	EPA 8260C	10-20-16	10-20-16	
Toluene	ND	2.0	EPA 8260C	10-20-16	10-20-16	
(trans) 1,3-Dichloropropene	ND	0.40	EPA 8260C	10-20-16	10-20-16	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-14-GW**					
Laboratory ID:	10-198-08					
1,1,2-Trichloroethane	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Tetrachloroethene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
1,3-Dichloropropane	ND	0.40	EPA 8260C	10-20-16	10-20-16	
2-Hexanone	ND	4.0	EPA 8260C	10-20-16	10-20-16	
Dibromochloromethane	ND	0.40	EPA 8260C	10-20-16	10-20-16	
1,2-Dibromoethane	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Chlorobenzene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Ethylbenzene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
m,p-Xylene	ND	0.80	EPA 8260C	10-20-16	10-20-16	
o-Xylene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Styrene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Bromoform	ND	2.0	EPA 8260C	10-20-16	10-20-16	
Isopropylbenzene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Bromobenzene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
1,1,2,2-Tetrachloroethane	ND	0.40	EPA 8260C	10-20-16	10-20-16	
1,2,3-Trichloropropane	ND	0.40	EPA 8260C	10-20-16	10-20-16	
n-Propylbenzene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
2-Chlorotoluene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
4-Chlorotoluene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
1,3,5-Trimethylbenzene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
tert-Butylbenzene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
1,2,4-Trimethylbenzene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
sec-Butylbenzene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
1,3-Dichlorobenzene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
p-Isopropyltoluene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
1,4-Dichlorobenzene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
1,2-Dichlorobenzene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
n-Butylbenzene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
1,2-Dibromo-3-chloropropane	ND	2.0	EPA 8260C	10-20-16	10-20-16	
1,2,4-Trichlorobenzene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Hexachlorobutadiene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Naphthalene	ND	2.0	EPA 8260C	10-20-16	10-20-16	
1,2,3-Trichlorobenzene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*98*	*77-129*				
Toluene-d8	*102*	*80-127*				
4-Bromofluorobenzene	*89*	*80-125*				

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Samples Submitted: October 19, 2016
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Project: 1071-014

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-20-GW**					
Laboratory ID:	10-198-11					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Chloromethane	ND	1.0	EPA 8260C	10-20-16	10-20-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Bromomethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Chloroethane	ND	1.0	EPA 8260C	10-20-16	10-20-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Acetone	5.7	5.0	EPA 8260C	10-20-16	10-20-16	
Iodomethane	ND	1.0	EPA 8260C	10-20-16	10-20-16	
Carbon Disulfide	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-20-16	10-20-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-20-16	10-20-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
2-Butanone	ND	5.0	EPA 8260C	10-20-16	10-20-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Chloroform	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Benzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Trichloroethene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Dibromomethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
2-Chloroethyl Vinyl Ether	ND	1.8	EPA 8260C	10-20-16	10-20-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-20-16	10-20-16	
Toluene	ND	1.0	EPA 8260C	10-20-16	10-20-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-20-16	10-20-16	

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-20-GW**					
Laboratory ID:	10-198-11					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Tetrachloroethene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
2-Hexanone	ND	2.0	EPA 8260C	10-20-16	10-20-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
o-Xylene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Styrene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Bromoform	ND	1.0	EPA 8260C	10-20-16	10-20-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Bromobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2,4-Trimethylbenzene	0.25	0.20	EPA 8260C	10-20-16	10-20-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	10-20-16	10-20-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Naphthalene	ND	1.0	EPA 8260C	10-20-16	10-20-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*77-129*				
Toluene-d8	*103*	*80-127*				
4-Bromofluorobenzene	*96*	*80-125*				

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1020W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Chloromethane	ND	1.0	EPA 8260C	10-20-16	10-20-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Bromomethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Chloroethane	ND	1.0	EPA 8260C	10-20-16	10-20-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Acetone	ND	5.0	EPA 8260C	10-20-16	10-20-16	
Iodomethane	ND	1.0	EPA 8260C	10-20-16	10-20-16	
Carbon Disulfide	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-20-16	10-20-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-20-16	10-20-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
2-Butanone	ND	5.0	EPA 8260C	10-20-16	10-20-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Chloroform	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Benzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Trichloroethene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Dibromomethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
2-Chloroethyl Vinyl Ether	ND	1.8	EPA 8260C	10-20-16	10-20-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-20-16	10-20-16	
Toluene	ND	1.0	EPA 8260C	10-20-16	10-20-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-20-16	10-20-16	

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VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1020W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Tetrachloroethene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
2-Hexanone	ND	2.0	EPA 8260C	10-20-16	10-20-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-20-16	10-20-16	
o-Xylene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Styrene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Bromoform	ND	1.0	EPA 8260C	10-20-16	10-20-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Bromobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-20-16	10-20-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	10-20-16	10-20-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Naphthalene	ND	1.0	EPA 8260C	10-20-16	10-20-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	10-20-16	10-20-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*106*	*77-129*				
Toluene-d8	*101*	*80-127*				
4-Bromofluorobenzene	*98*	*80-125*				

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1020W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**9.58**	**9.85**	10.0	10.0	96	99	63-127	3	17	
Benzene	**9.40**	**9.60**	10.0	10.0	94	96	76-121	2	12	
Trichloroethene	**8.44**	**8.34**	10.0	10.0	84	83	64-114	1	15	
Toluene	**8.79**	**8.66**	10.0	10.0	88	87	82-115	1	13	
Chlorobenzene	**8.55**	**8.65**	10.0	10.0	86	87	80-115	1	14	
Surrogate:										
Dibromofluoromethane					*102*	*105*	*77-129*			
Toluene-d8					*98*	*101*	*80-127*			
4-Bromofluorobenzene					*93*	*95*	*80-125*			

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-11-8.0**					
Laboratory ID:	10-198-01					
Naphthalene	**ND**	0.0084	EPA 8270D/SIM	10-26-16	10-27-16	
2-Methylnaphthalene	**ND**	0.0084	EPA 8270D/SIM	10-26-16	10-27-16	
1-Methylnaphthalene	**ND**	0.0084	EPA 8270D/SIM	10-26-16	10-27-16	
Acenaphthylene	**ND**	0.0084	EPA 8270D/SIM	10-26-16	10-27-16	
Acenaphthene	**ND**	0.0084	EPA 8270D/SIM	10-26-16	10-27-16	
Fluorene	**ND**	0.0084	EPA 8270D/SIM	10-26-16	10-27-16	
Phenanthrene	**ND**	0.0084	EPA 8270D/SIM	10-26-16	10-27-16	
Anthracene	**ND**	0.0084	EPA 8270D/SIM	10-26-16	10-27-16	
Fluoranthene	**ND**	0.0084	EPA 8270D/SIM	10-26-16	10-27-16	
Pyrene	**ND**	0.0084	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo[a]anthracene	**ND**	0.0084	EPA 8270D/SIM	10-26-16	10-27-16	
Chrysene	**ND**	0.0084	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo[b]fluoranthene	**ND**	0.0084	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo(j,k)fluoranthene	**ND**	0.0084	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo[a]pyrene	**ND**	0.0084	EPA 8270D/SIM	10-26-16	10-27-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0084	EPA 8270D/SIM	10-26-16	10-27-16	
Dibenz[a,h]anthracene	**ND**	0.0084	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo[g,h,i]perylene	**ND**	0.0084	EPA 8270D/SIM	10-26-16	10-27-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*55*	*32 - 122*				
Pyrene-d10	*68*	*33 - 125*				
Terphenyl-d14	*67*	*36 - 118*				

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-20-7.0**					
Laboratory ID:	10-198-10					
Naphthalene	**ND**	0.0091	EPA 8270D/SIM	10-26-16	10-27-16	
2-Methylnaphthalene	**ND**	0.0091	EPA 8270D/SIM	10-26-16	10-27-16	
1-Methylnaphthalene	**ND**	0.0091	EPA 8270D/SIM	10-26-16	10-27-16	
Acenaphthylene	**ND**	0.0091	EPA 8270D/SIM	10-26-16	10-27-16	
Acenaphthene	**ND**	0.0091	EPA 8270D/SIM	10-26-16	10-27-16	
Fluorene	**ND**	0.0091	EPA 8270D/SIM	10-26-16	10-27-16	
Phenanthrene	**ND**	0.0091	EPA 8270D/SIM	10-26-16	10-27-16	
Anthracene	**ND**	0.0091	EPA 8270D/SIM	10-26-16	10-27-16	
Fluoranthene	**ND**	0.0091	EPA 8270D/SIM	10-26-16	10-27-16	
Pyrene	**ND**	0.0091	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo[a]anthracene	**ND**	0.0091	EPA 8270D/SIM	10-26-16	10-27-16	
Chrysene	**ND**	0.0091	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo[b]fluoranthene	**ND**	0.0091	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo(j,k)fluoranthene	**ND**	0.0091	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo[a]pyrene	**ND**	0.0091	EPA 8270D/SIM	10-26-16	10-27-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0091	EPA 8270D/SIM	10-26-16	10-27-16	
Dibenz[a,h]anthracene	**ND**	0.0091	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo[g,h,i]perylene	**ND**	0.0091	EPA 8270D/SIM	10-26-16	10-27-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*60*	*32 - 122*				
Pyrene-d10	*73*	*33 - 125*				
Terphenyl-d14	*71*	*36 - 118*				

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1026S1					
Naphthalene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Acenaphthylene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Acenaphthene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Fluorene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Phenanthrene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Anthracene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Fluoranthene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Pyrene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*68*	*32 - 122*				
Pyrene-d10	*87*	*33 - 125*				
Terphenyl-d14	*86*	*36 - 118*				

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

PAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	10-198-01										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.0592**	**0.0538**	0.0833	0.0833	ND	71	65	39 - 112	10	27	
Acenaphthylene	**0.0563**	**0.0509**	0.0833	0.0833	ND	68	61	40 - 121	10	34	
Acenaphthene	**0.0578**	**0.0536**	0.0833	0.0833	ND	69	64	44 - 113	8	28	
Fluorene	**0.0644**	**0.0576**	0.0833	0.0833	ND	77	69	43 - 119	11	27	
Phenanthrene	**0.0585**	**0.0547**	0.0833	0.0833	ND	70	66	35 - 124	7	30	
Anthracene	**0.0898**	**0.0835**	0.0833	0.0833	ND	108	100	30 - 140	7	26	
Fluoranthene	**0.0644**	**0.0613**	0.0833	0.0833	ND	77	74	29 - 136	5	32	
Pyrene	**0.0620**	**0.0597**	0.0833	0.0833	ND	74	72	35 - 128	4	33	
Benzo[a]anthracene	**0.0648**	**0.0609**	0.0833	0.0833	ND	78	73	30 - 143	6	31	
Chrysene	**0.0671**	**0.0641**	0.0833	0.0833	ND	81	77	32 - 129	5	33	
Benzo[b]fluoranthene	**0.0614**	**0.0581**	0.0833	0.0833	ND	74	70	23 - 140	6	29	
Benzo(j,k)fluoranthene	**0.0671**	**0.0633**	0.0833	0.0833	ND	81	76	32 - 119	6	30	
Benzo[a]pyrene	**0.0657**	**0.0619**	0.0833	0.0833	ND	79	74	31 - 131	6	32	
Indeno(1,2,3-c,d)pyrene	**0.0589**	**0.0537**	0.0833	0.0833	ND	71	64	31 - 130	9	28	
Dibenz[a,h]anthracene	**0.0603**	**0.0591**	0.0833	0.0833	ND	72	71	40 - 119	2	27	
Benzo[g,h,i]perylene	**0.0603**	**0.0567**	0.0833	0.0833	ND	72	68	39 - 119	6	29	
Surrogate:											
2-Fluorobiphenyl						*60*	*54*	*32 - 122*			
Pyrene-d10						*73*	*70*	*33 - 125*			
Terphenyl-d14						*72*	*68*	*36 - 118*			

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
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Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-11-GW**					
Laboratory ID:	10-198-03					
Naphthalene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
2-Methylnaphthalene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
1-Methylnaphthalene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Acenaphthylene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Acenaphthene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Fluorene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Phenanthrene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Anthracene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Fluoranthene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Pyrene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[a]anthracene	**ND**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Chrysene	**ND**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[b]fluoranthene	**ND**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo(j,k)fluoranthene	**ND**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[a]pyrene	**ND**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Dibenz[a,h]anthracene	**ND**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[g,h,i]perylene	**ND**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*67*	*30 - 124*				
Pyrene-d10	*89*	*40 - 143*				
Terphenyl-d14	*85*	*27 - 127*				

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-14-GW**					
Laboratory ID:	10-198-08					
Naphthalene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
2-Methylnaphthalene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
1-Methylnaphthalene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Acenaphthylene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Acenaphthene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Fluorene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Phenanthrene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Anthracene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Fluoranthene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Pyrene	**ND**	0.095	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[a]anthracene	**ND**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Chrysene	**ND**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[b]fluoranthene	**ND**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo(j,k)fluoranthene	**ND**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[a]pyrene	**ND**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Dibenz[a,h]anthracene	**ND**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[g,h,i]perylene	**ND**	0.0095	EPA 8270D/SIM	10-20-16	10-20-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*60*	*30 - 124*				
Pyrene-d10	*63*	*40 - 143*				
Terphenyl-d14	*70*	*27 - 127*				

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1020W1					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Fluorene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Anthracene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Pyrene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Chrysene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*47*	*30 - 124*				
Pyrene-d10	*75*	*40 - 143*				
Terphenyl-d14	*73*	*27 - 127*				

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

PAHs EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1020W1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.320**	**0.242**	0.500	0.500	64	48	29 - 101	28	47	
Acenaphthylene	**0.271**	**0.248**	0.500	0.500	54	50	20 - 117	9	50	
Acenaphthene	**0.339**	**0.278**	0.500	0.500	68	56	37 - 109	20	43	
Fluorene	**0.380**	**0.340**	0.500	0.500	76	68	47 - 108	11	34	
Phenanthrene	**0.376**	**0.339**	0.500	0.500	75	68	49 - 109	10	28	
Anthracene	**0.490**	**0.466**	0.500	0.500	98	93	34 - 140	5	32	
Fluoranthene	**0.458**	**0.422**	0.500	0.500	92	84	45 - 120	8	39	
Pyrene	**0.455**	**0.422**	0.500	0.500	91	84	42 - 133	8	39	
Benzo[a]anthracene	**0.417**	**0.374**	0.500	0.500	83	75	71 - 117	11	28	
Chrysene	**0.433**	**0.408**	0.500	0.500	87	82	53 - 110	6	25	
Benzo[b]fluoranthene	**0.465**	**0.412**	0.500	0.500	93	82	53 - 123	12	37	
Benzo(j,k)fluoranthene	**0.456**	**0.416**	0.500	0.500	91	83	52 - 119	9	41	
Benzo[a]pyrene	**0.431**	**0.418**	0.500	0.500	86	84	37 - 129	3	33	
Indeno(1,2,3-c,d)pyrene	**0.417**	**0.382**	0.500	0.500	83	76	45 - 128	9	31	
Dibenz[a,h]anthracene	**0.429**	**0.399**	0.500	0.500	86	80	54 - 120	7	30	
Benzo[g,h,i]perylene	**0.407**	**0.368**	0.500	0.500	81	74	49 - 117	10	29	
Surrogate:										
2-Fluorobiphenyl					*53*	*44*	*30 - 124*			
Pyrene-d10					*84*	*79*	*40 - 143*			
Terphenyl-d14					*83*	*77*	*27 - 127*			

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

TOTAL SUSPENDED SOLIDS
SM 2540D

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-11-GW**					
Laboratory ID:	10-198-03					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-20-16	10-21-16	
Client ID:	**F-14-GW**					
Laboratory ID:	10-198-08					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-20-16	10-21-16	

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

TOTAL SUSPENDED SOLIDS
SM 2540D
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1020W1					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-20-16	10-21-16	

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	10-187-02								
	ORIG	DUP							
Total Suspended Solids	**ND**	**ND**	NA	NA	NA	NA	NA	20	
SPIKE BLANK									
Laboratory ID:	SB1020W1								
	SB		SB		SB				
Total Suspended Solids	**89.0**		100	NA	89	78-113	NA	NA	

Date of Report: October 28, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-198
Project: 1071-014

% MOISTURE

Date Analyzed: 10-26-16

Client ID	Lab ID	% Moisture
F-11-8.0	10-198-01	20
F-13-2.5	10-198-04	5
F-14-6.0	10-198-06	11
F-20-7.0	10-198-10	26

OnSite Environmental Inc.

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.

Z -

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

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: Farallon
Project Number: 1071-014
Project Name: South Norfolk Street & East Marginal Way
Project Manager: Scott Allin
Sampled by: Ryan Ostrom

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Days
- ☐ 3 Days
- ☒ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 10-198

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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	TSS				% Moisture
1	F-11-8.0	10/18/16	0910	S	5			(X)	(X)	(X)				(X)													(X)
2	F-11-12.0		0925	S	5																						
3	F-11-GW		0950	W	11			X	X	X				X									X				
4	F-13-2.5		1120	S	5			(X)	(X)	(X)																	(X)
5	F-13-GW		1135	W	6			X	X	X																	
6	F-14-6.0		1210	S	5			(X)	(X)	(X)																	(X)
7	F-14-9.0		1220	S	5																						
8	F-14-GW		1340	W	11			X	X	X				X									X				
9	F-20-2.5		1600	S	5																						
10	F-20-7.0	↓	1630	S	5			(X)	(X)	(X)				(X)													(X)

	Signature	Company	Date	Time
Relinquished	Ryan Ostrom	Farallon	10/18/16	1900
Received			10/19/16	1200
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

- TSS water samples have been field filtered
- Please Hold Soil samples.
(X) Added 10/20/16. DB (STA)

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: Farallon
Project Number: 1071-014
Project Name: South Norfolk Street & East Marginal Way
Project Manager: Scott Allin
Sampled by: Ryan Ostrom

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Days
- ☐ 3 Days
- ☒ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 10-198

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
11	F-20-GW	10/18/16	1650	W	6			X		X																	

RO

	Signature	Company	Date	Time
Relinquished	Ryan Ostrom	Farallon	10/18/16	1900
Received		QSE	10/19/16	1200
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

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

October 26, 2016

Scott Allin
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 1071-014
Laboratory Reference No. 1610-199

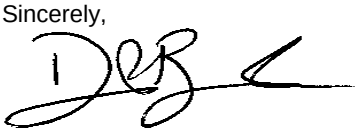
Dear Scott:

Enclosed are the analytical results and associated quality control data for samples submitted on October 19, 2016.

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 26, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-199
Project: 1071-014

Case Narrative

Samples were collected on October 18, 2016 and received by the laboratory on October 19, 2016. 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 of Report: October 26, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-199
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	10-199-01					
Client ID:	**F-11-GW**					
Arsenic	**3.1**	3.0	200.8		10-20-16	
Lab ID:	10-199-02					
Client ID:	**F-14-GW**					
Arsenic	**9.9**	3.0	200.8		10-20-16	

Date of Report: October 26, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-199
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8
METHOD BLANK QUALITY CONTROL

Date Analyzed: 10-20-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB1020D1

Analyte	Method	Result	PQL
Arsenic	200.8	**ND**	3.0

Date of Report: October 26, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-199
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8
DUPLICATE QUALITY CONTROL

Date Analyzed: 10-20-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-189-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**ND**	**ND**	NA	3.0	

Date of Report: October 26, 2016
Samples Submitted: October 19, 2016
Laboratory Reference: 1610-199
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8
MS/MSD QUALITY CONTROL

Date Analyzed: 10-20-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-189-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	200	**213**	106	**209**	105	2	

OnSite Environmental Inc.

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.

Z -

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

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: Farallon
Project Number: 1071-014
Project Name: South Norfolk Street & East Marginal Way
Project Manager: Scott Allin
Sampled by: Ryan Ostrom

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Days
- ☐ 3 Days
- ☒ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 10-199

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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	Dissolved Arsenic 6020/7000 series				% Moisture
1	F-11-GW	10/18/16	0950	W	1																		X				
2	F-14-GW	↓	1340	W	1																		X				

RO

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished	Ryan Ostrom	Farallon	10/18/16	1900	Samples have been field filtered
Received		ORE	10/19/16	1200	
Relinquished					
Received					
Relinquished					
Received					Data Package: Standard ☐ Level III ☐ Level IV ☐
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

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

October 28, 2016

Scott Allin
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 1071-014
Laboratory Reference No. 1610-217

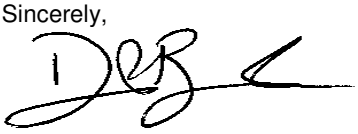
Dear Scott:

Enclosed are the analytical results and associated quality control data for samples submitted on October 20, 2016.

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 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

Case Narrative

Samples were collected on October 19, 2016 and received by the laboratory on October 20, 2016. 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.

NWTPH Gx (soil) Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Volatiles EPA 8260C (soil) Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Volatiles EPA 8260C (water) Analysis

Some MTCA Method A cleanup levels are non-achievable for sample MW-101-101916 due to sample matrix effects.

Total Suspended Solids SM 2540D Analysis

Samples received were field filtered.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

NWTPH-Gx

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-21-GW**					
Laboratory ID:	10-217-03					
Gasoline	**ND**	100	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*83*	*61-118*				
Client ID:	**MW-101-101916**					
Laboratory ID:	10-217-04					
Gasoline	**ND**	100	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*61-118*				
Client ID:	**DOF-1-101916**					
Laboratory ID:	10-217-06					
Gasoline	**ND**	100	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*77*	*61-118*				
Client ID:	**F-22-GW**					
Laboratory ID:	10-217-07					
Gasoline	**ND**	100	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*84*	*61-118*				
Client ID:	**F-23-GW**					
Laboratory ID:	10-217-08					
Gasoline	**150**	100	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*61-118*				
Client ID:	**MW-AG2-101916**					
Laboratory ID:	10-217-09					
Gasoline	**ND**	100	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*85*	*61-118*				

Date of Report: October 28, 2016
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NWTPH-Gx
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1024W2					
Gasoline	**ND**	100	NWTPH-Gx	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*77*	*61-118*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-217-06										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*77*	*83*	*61-118*			

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
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Project: 1071-014

NWTPH-Gx

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-22-7.0**					
Laboratory ID:	10-217-05					
Gasoline	**ND**	6.6	NWTPH-Gx	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*94*	*63-124*				

Date of Report: October 28, 2016
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Project: 1071-014

NWTPH-Gx
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1026S1					
Gasoline	**ND**	5.0	NWTPH-Gx	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*63-124*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-246-01										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*88*	*90*	*63-124*			

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
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Project: 1071-014

NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-20-GW**					
Laboratory ID:	10-217-01					
Diesel Range Organics	**ND**	0.27	NWTPH-Dx	10-25-16	10-25-16	
Lube Oil Range Organics	**ND**	0.44	NWTPH-Dx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*104*	*50-150*				
Client ID:	**F-21-GW**					
Laboratory ID:	10-217-03					
Diesel Range Organics	**ND**	0.27	NWTPH-Dx	10-25-16	10-25-16	
Lube Oil Range Organics	**ND**	0.44	NWTPH-Dx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*104*	*50-150*				
Client ID:	**MW-101-101916**					
Laboratory ID:	10-217-04					
Diesel Range Organics	**0.29**	0.26	NWTPH-Dx	10-25-16	10-25-16	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*104*	*50-150*				
Client ID:	**DOF-1-101916**					
Laboratory ID:	10-217-06					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	10-25-16	10-25-16	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*106*	*50-150*				
Client ID:	**F-23-GW**					
Laboratory ID:	10-217-08					
Diesel Range Organics	**0.84**	0.26	NWTPH-Dx	10-25-16	10-25-16	
Lube Oil Range Organics	**0.50**	0.42	NWTPH-Dx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				
Client ID:	**MW-AG2-101916**					
Laboratory ID:	10-217-09					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	10-25-16	10-25-16	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*98*	*50-150*				

Date of Report: October 28, 2016
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Project: 1071-014

NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1025W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	10-25-16	10-25-16	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-217-04										
	ORIG	DUP									
Diesel Range Organics	**0.290**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*104*	*91*	*50-150*			

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
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Project: 1071-014

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-22-7.0**					
Laboratory ID:	10-217-05					
Diesel Range Organics	**ND**	32	NWTPH-Dx	10-26-16	10-26-16	
Lube Oil Range Organics	**ND**	63	NWTPH-Dx	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*91*	*50-150*				

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NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1026S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	10-26-16	10-26-16	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*102*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-187-06										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*90*	*90*	*50-150*			

Date of Report: October 28, 2016
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VOLATILES EPA 8260C
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-21-GW**					
Laboratory ID:	10-217-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chloromethane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromomethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chloroethane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Acetone	ND	5.0	EPA 8260C	10-24-16	10-24-16	
Iodomethane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
Carbon Disulfide	0.81	0.20	EPA 8260C	10-24-16	10-24-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-24-16	10-24-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-24-16	10-24-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Butanone	ND	5.0	EPA 8260C	10-24-16	10-24-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chloroform	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Benzene	0.21	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Trichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Dibromomethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Chloroethyl Vinyl Ether	ND	5.5	EPA 8260C	10-24-16	10-24-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-24-16	10-24-16	
Toluene	ND	1.0	EPA 8260C	10-24-16	10-24-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-24-16	10-24-16	

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VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-21-GW**					
Laboratory ID:	10-217-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Tetrachloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Hexanone	ND	2.0	EPA 8260C	10-24-16	10-24-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
o-Xylene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Styrene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromoform	ND	1.3	EPA 8260C	10-24-16	10-24-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Naphthalene	ND	1.3	EPA 8260C	10-24-16	10-24-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*77-129*				
Toluene-d8	*101*	*80-127*				
4-Bromofluorobenzene	*96*	*80-125*				

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Project: 1071-014

VOLATILES EPA 8260C
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-101-101916**					
Laboratory ID:	10-217-04					
Dichlorodifluoromethane	2.7	0.40	EPA 8260C	10-24-16	10-24-16	
Chloromethane	ND	2.0	EPA 8260C	10-24-16	10-24-16	
Vinyl Chloride	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Bromomethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Chloroethane	ND	2.0	EPA 8260C	10-24-16	10-24-16	
Trichlorofluoromethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloroethene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Acetone	ND	10	EPA 8260C	10-24-16	10-24-16	
Iodomethane	ND	2.0	EPA 8260C	10-24-16	10-24-16	
Carbon Disulfide	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Methylene Chloride	ND	2.0	EPA 8260C	10-24-16	10-24-16	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Methyl t-Butyl Ether	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloroethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Vinyl Acetate	ND	2.0	EPA 8260C	10-24-16	10-24-16	
2,2-Dichloropropane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
(cis) 1,2-Dichloroethene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
2-Butanone	ND	10	EPA 8260C	10-24-16	10-24-16	
Bromochloromethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Chloroform	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,1,1-Trichloroethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Carbon Tetrachloride	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloropropene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Benzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,2-Dichloroethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Trichloroethene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,2-Dichloropropane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Dibromomethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Bromodichloromethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
2-Chloroethyl Vinyl Ether	ND	11	EPA 8260C	10-24-16	10-24-16	
(cis) 1,3-Dichloropropene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Methyl Isobutyl Ketone	ND	4.0	EPA 8260C	10-24-16	10-24-16	
Toluene	ND	2.0	EPA 8260C	10-24-16	10-24-16	
(trans) 1,3-Dichloropropene	ND	0.40	EPA 8260C	10-24-16	10-24-16	

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-101-101916**					
Laboratory ID:	10-217-04					
1,1,2-Trichloroethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Tetrachloroethene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,3-Dichloropropane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
2-Hexanone	ND	4.0	EPA 8260C	10-24-16	10-24-16	
Dibromochloromethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,2-Dibromoethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Chlorobenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Ethylbenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
m,p-Xylene	ND	0.80	EPA 8260C	10-24-16	10-24-16	
o-Xylene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Styrene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Bromoform	ND	2.6	EPA 8260C	10-24-16	10-24-16	
Isopropylbenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Bromobenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,1,2,2-Tetrachloroethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,2,3-Trichloropropane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
n-Propylbenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
2-Chlorotoluene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
4-Chlorotoluene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,3,5-Trimethylbenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
tert-Butylbenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,2,4-Trimethylbenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
sec-Butylbenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,3-Dichlorobenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
p-Isopropyltoluene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,4-Dichlorobenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,2-Dichlorobenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
n-Butylbenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,2-Dibromo-3-chloropropane	ND	2.0	EPA 8260C	10-24-16	10-24-16	
1,2,4-Trichlorobenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Hexachlorobutadiene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Naphthalene	ND	2.6	EPA 8260C	10-24-16	10-24-16	
1,2,3-Trichlorobenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*107*	*77-129*				
Toluene-d8	*103*	*80-127*				
4-Bromofluorobenzene	*93*	*80-125*				

Date of Report: October 28, 2016
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Project: 1071-014

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DOF-1-101916**					
Laboratory ID:	10-217-06					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chloromethane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromomethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chloroethane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Acetone	ND	5.0	EPA 8260C	10-24-16	10-24-16	
Iodomethane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
Carbon Disulfide	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-24-16	10-24-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-24-16	10-24-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Butanone	ND	5.0	EPA 8260C	10-24-16	10-24-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chloroform	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Benzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Trichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Dibromomethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Chloroethyl Vinyl Ether	ND	5.5	EPA 8260C	10-24-16	10-24-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-24-16	10-24-16	
Toluene	ND	1.0	EPA 8260C	10-24-16	10-24-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-24-16	10-24-16	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DOF-1-101916**					
Laboratory ID:	10-217-06					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Tetrachloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Hexanone	ND	2.0	EPA 8260C	10-24-16	10-24-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
o-Xylene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Styrene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromoform	ND	1.3	EPA 8260C	10-24-16	10-24-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Naphthalene	ND	1.3	EPA 8260C	10-24-16	10-24-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*93*	*77-129*				
Toluene-d8	*103*	*80-127*				
4-Bromofluorobenzene	*97*	*80-125*				

Date of Report: October 28, 2016
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Project: 1071-014

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-22-GW**					
Laboratory ID:	10-217-07					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chloromethane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromomethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chloroethane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Acetone	ND	5.0	EPA 8260C	10-24-16	10-24-16	
Iodomethane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
Carbon Disulfide	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-24-16	10-24-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-24-16	10-24-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
(cis) 1,2-Dichloroethene	0.24	0.20	EPA 8260C	10-24-16	10-24-16	
2-Butanone	ND	5.0	EPA 8260C	10-24-16	10-24-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chloroform	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Benzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Trichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Dibromomethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Chloroethyl Vinyl Ether	ND	5.5	EPA 8260C	10-24-16	10-24-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-24-16	10-24-16	
Toluene	ND	1.0	EPA 8260C	10-24-16	10-24-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-24-16	10-24-16	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-22-GW**					
Laboratory ID:	10-217-07					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Tetrachloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Hexanone	ND	2.0	EPA 8260C	10-24-16	10-24-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
o-Xylene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Styrene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromoform	ND	1.3	EPA 8260C	10-24-16	10-24-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Naphthalene	ND	1.3	EPA 8260C	10-24-16	10-24-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*77-129*				
Toluene-d8	*101*	*80-127*				
4-Bromofluorobenzene	*93*	*80-125*				

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Project: 1071-014

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-23-GW**					
Laboratory ID:	10-217-08					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chloromethane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromomethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chloroethane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Acetone	ND	5.0	EPA 8260C	10-24-16	10-24-16	
Iodomethane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
Carbon Disulfide	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-24-16	10-24-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-24-16	10-24-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Butanone	ND	5.0	EPA 8260C	10-24-16	10-24-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chloroform	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Benzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Trichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dichloropropane	0.39	0.20	EPA 8260C	10-24-16	10-24-16	
Dibromomethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Chloroethyl Vinyl Ether	ND	5.5	EPA 8260C	10-24-16	10-24-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-24-16	10-24-16	
Toluene	ND	1.0	EPA 8260C	10-24-16	10-24-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-24-16	10-24-16	

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Project: 1071-014

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-23-GW**					
Laboratory ID:	10-217-08					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Tetrachloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Hexanone	ND	2.0	EPA 8260C	10-24-16	10-24-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
o-Xylene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Styrene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromoform	ND	1.3	EPA 8260C	10-24-16	10-24-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
tert-Butylbenzene	0.40	0.20	EPA 8260C	10-24-16	10-24-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Naphthalene	ND	1.3	EPA 8260C	10-24-16	10-24-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*88*	*77-129*				
Toluene-d8	*102*	*80-127*				
4-Bromofluorobenzene	*96*	*80-125*				

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

VOLATILES EPA 8260C
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-AG2-101916**					
Laboratory ID:	10-217-09					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chloromethane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromomethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chloroethane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Acetone	ND	5.0	EPA 8260C	10-24-16	10-24-16	
Iodomethane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
Carbon Disulfide	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-24-16	10-24-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-24-16	10-24-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Butanone	ND	5.0	EPA 8260C	10-24-16	10-24-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chloroform	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Benzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Trichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Dibromomethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Chloroethyl Vinyl Ether	ND	5.5	EPA 8260C	10-24-16	10-24-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-24-16	10-24-16	
Toluene	ND	1.0	EPA 8260C	10-24-16	10-24-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-24-16	10-24-16	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-AG2-101916**					
Laboratory ID:	10-217-09					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Tetrachloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Hexanone	ND	2.0	EPA 8260C	10-24-16	10-24-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
o-Xylene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Styrene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromoform	ND	1.3	EPA 8260C	10-24-16	10-24-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Naphthalene	ND	1.3	EPA 8260C	10-24-16	10-24-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*103*	*77-129*				
Toluene-d8	*101*	*80-127*				
4-Bromofluorobenzene	*94*	*80-125*				

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1024W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chloromethane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromomethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chloroethane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Acetone	ND	5.0	EPA 8260C	10-24-16	10-24-16	
Iodomethane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
Carbon Disulfide	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-24-16	10-24-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-24-16	10-24-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Butanone	ND	5.0	EPA 8260C	10-24-16	10-24-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chloroform	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Benzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Trichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Dibromomethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Chloroethyl Vinyl Ether	ND	5.5	EPA 8260C	10-24-16	10-24-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-24-16	10-24-16	
Toluene	ND	1.0	EPA 8260C	10-24-16	10-24-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-24-16	10-24-16	

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1024W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Tetrachloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Hexanone	ND	2.0	EPA 8260C	10-24-16	10-24-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
o-Xylene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Styrene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromoform	ND	1.3	EPA 8260C	10-24-16	10-24-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Naphthalene	ND	1.3	EPA 8260C	10-24-16	10-24-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*88*	*77-129*				
Toluene-d8	*104*	*80-127*				
4-Bromofluorobenzene	*94*	*80-125*				

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1024W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.1**	**9.29**	10.0	10.0	101	93	63-127	8	17	
Benzene	**9.75**	**10.1**	10.0	10.0	98	101	76-121	4	12	
Trichloroethene	**8.70**	**8.51**	10.0	10.0	87	85	64-114	2	15	
Toluene	**9.13**	**9.03**	10.0	10.0	91	90	82-115	1	13	
Chlorobenzene	**9.02**	**8.82**	10.0	10.0	90	88	80-115	2	14	
Surrogate:										
Dibromofluoromethane					*82*	*87*	*77-129*			
Toluene-d8					*101*	*103*	*80-127*			
4-Bromofluorobenzene					*94*	*94*	*80-125*			

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

VOLATILES EPA 8260C
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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-22-7.0**					
Laboratory ID:	10-217-05					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Chloromethane	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
Vinyl Chloride	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Bromomethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Chloroethane	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Acetone	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
Iodomethane	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
Carbon Disulfide	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Methylene Chloride	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Vinyl Acetate	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
2-Butanone	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
Bromochloromethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Chloroform	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Benzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Trichloroethene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Dibromomethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Bromodichloromethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
Toluene	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	

Date of Report: October 28, 2016
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Laboratory Reference: 1610-217
Project: 1071-014

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-22-7.0**					
Laboratory ID:	10-217-05					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Tetrachloroethene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
2-Hexanone	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
Dibromochloromethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Chlorobenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Ethylbenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
m,p-Xylene	ND	0.0020	EPA 8260C	10-25-16	10-25-16	
o-Xylene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Styrene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Bromoform	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Isopropylbenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Bromobenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
n-Propylbenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
2-Chlorotoluene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
4-Chlorotoluene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
tert-Butylbenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
sec-Butylbenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
p-Isopropyltoluene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
n-Butylbenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
Naphthalene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*105*	*73-134*				
Toluene-d8	*103*	*81-124*				
4-Bromofluorobenzene	*101*	*80-131*				

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1025S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Chloromethane	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
Vinyl Chloride	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Bromomethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Chloroethane	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Acetone	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
Iodomethane	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
Carbon Disulfide	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Methylene Chloride	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Vinyl Acetate	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
2-Butanone	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
Bromochloromethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Chloroform	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Benzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Trichloroethene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Dibromomethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Bromodichloromethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
Toluene	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	

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VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1025S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Tetrachloroethene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
2-Hexanone	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
Dibromochloromethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Chlorobenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Ethylbenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
m,p-Xylene	ND	0.0020	EPA 8260C	10-25-16	10-25-16	
o-Xylene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Styrene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Bromoform	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Isopropylbenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Bromobenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
n-Propylbenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
2-Chlorotoluene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
4-Chlorotoluene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
tert-Butylbenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
sec-Butylbenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
p-Isopropyltoluene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
n-Butylbenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	10-25-16	10-25-16	
Naphthalene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*111*	*73-134*				
Toluene-d8	*105*	*81-124*				
4-Bromofluorobenzene	*105*	*80-131*				

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1025S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0619**	**0.0547**	0.0500	0.0500	124	109	66-127	12	15	
Benzene	**0.0511**	**0.0495**	0.0500	0.0500	102	99	76-122	3	15	
Trichloroethene	**0.0499**	**0.0522**	0.0500	0.0500	100	104	78-120	5	15	
Toluene	**0.0493**	**0.0516**	0.0500	0.0500	99	103	83-120	5	15	
Chlorobenzene	**0.0492**	**0.0512**	0.0500	0.0500	98	102	81-120	4	15	
Surrogate:										
Dibromofluoromethane					*104*	*104*	*73-134*			
Toluene-d8					*99*	*101*	*81-124*			
4-Bromofluorobenzene					*97*	*100*	*80-131*			

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-20-GW**					
Laboratory ID:	10-217-01					
Naphthalene	**ND**	0.11	EPA 8270D/SIM	10-20-16	10-24-16	
2-Methylnaphthalene	**ND**	0.11	EPA 8270D/SIM	10-20-16	10-24-16	
1-Methylnaphthalene	**ND**	0.11	EPA 8270D/SIM	10-20-16	10-24-16	
Acenaphthylene	**ND**	0.11	EPA 8270D/SIM	10-20-16	10-24-16	
Acenaphthene	**ND**	0.11	EPA 8270D/SIM	10-20-16	10-24-16	
Fluorene	**ND**	0.11	EPA 8270D/SIM	10-20-16	10-24-16	
Phenanthrene	**ND**	0.11	EPA 8270D/SIM	10-20-16	10-24-16	
Anthracene	**ND**	0.11	EPA 8270D/SIM	10-20-16	10-24-16	
Fluoranthene	**ND**	0.11	EPA 8270D/SIM	10-20-16	10-24-16	
Pyrene	**ND**	0.11	EPA 8270D/SIM	10-20-16	10-24-16	
Benzo[a]anthracene	**ND**	0.011	EPA 8270D/SIM	10-20-16	10-24-16	
Chrysene	**ND**	0.011	EPA 8270D/SIM	10-20-16	10-24-16	
Benzo[b]fluoranthene	**ND**	0.011	EPA 8270D/SIM	10-20-16	10-24-16	
Benzo(j,k)fluoranthene	**ND**	0.011	EPA 8270D/SIM	10-20-16	10-24-16	
Benzo[a]pyrene	**ND**	0.011	EPA 8270D/SIM	10-20-16	10-24-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.011	EPA 8270D/SIM	10-20-16	10-24-16	
Dibenz[a,h]anthracene	**ND**	0.011	EPA 8270D/SIM	10-20-16	10-24-16	
Benzo[g,h,i]perylene	**ND**	0.011	EPA 8270D/SIM	10-20-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*69*	*30 - 124*				
Pyrene-d10	*99*	*40 - 143*				
Terphenyl-d14	*99*	*27 - 127*				

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-21-GW**					
Laboratory ID:	10-217-03					
Naphthalene	**ND**	0.096	EPA 8270D/SIM	10-25-16	10-26-16	
2-Methylnaphthalene	**ND**	0.096	EPA 8270D/SIM	10-25-16	10-26-16	
1-Methylnaphthalene	**ND**	0.096	EPA 8270D/SIM	10-25-16	10-26-16	
Acenaphthylene	**ND**	0.096	EPA 8270D/SIM	10-25-16	10-26-16	
Acenaphthene	**ND**	0.096	EPA 8270D/SIM	10-25-16	10-26-16	
Fluorene	**ND**	0.096	EPA 8270D/SIM	10-25-16	10-26-16	
Phenanthrene	**ND**	0.096	EPA 8270D/SIM	10-25-16	10-26-16	
Anthracene	**ND**	0.096	EPA 8270D/SIM	10-25-16	10-26-16	
Fluoranthene	**ND**	0.096	EPA 8270D/SIM	10-25-16	10-26-16	
Pyrene	**ND**	0.096	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[a]anthracene	**ND**	0.0096	EPA 8270D/SIM	10-25-16	10-26-16	
Chrysene	**ND**	0.0096	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[b]fluoranthene	**ND**	0.0096	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo(j,k)fluoranthene	**ND**	0.0096	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[a]pyrene	**ND**	0.0096	EPA 8270D/SIM	10-25-16	10-26-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0096	EPA 8270D/SIM	10-25-16	10-26-16	
Dibenz[a,h]anthracene	**ND**	0.0096	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[g,h,i]perylene	**ND**	0.0096	EPA 8270D/SIM	10-25-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*66*	*30 - 124*				
Pyrene-d10	*78*	*40 - 143*				
Terphenyl-d14	*79*	*27 - 127*				

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-101-101916**					
Laboratory ID:	10-217-04					
Naphthalene	**0.10**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
2-Methylnaphthalene	**0.43**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
1-Methylnaphthalene	**3.0**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Acenaphthylene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Acenaphthene	**0.20**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Fluorene	**0.16**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Phenanthrene	**0.17**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Anthracene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Fluoranthene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Pyrene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Benzo[a]anthracene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Chrysene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Benzo[b]fluoranthene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Benzo(j,k)fluoranthene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Benzo[a]pyrene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Dibenz[a,h]anthracene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Benzo[g,h,i]perylene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*69*	*30 - 124*				
Pyrene-d10	*104*	*40 - 143*				
Terphenyl-d14	*94*	*27 - 127*				

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DOF-1-101916**					
Laboratory ID:	10-217-06					
Naphthalene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
2-Methylnaphthalene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
1-Methylnaphthalene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Acenaphthylene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Acenaphthene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Fluorene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Phenanthrene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Anthracene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Fluoranthene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Pyrene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Benzo[a]anthracene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Chrysene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Benzo[b]fluoranthene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Benzo(j,k)fluoranthene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Benzo[a]pyrene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Dibenz[a,h]anthracene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Benzo[g,h,i]perylene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*65*	*30 - 124*				
Pyrene-d10	*87*	*40 - 143*				
Terphenyl-d14	*83*	*27 - 127*				

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-23-GW**					
Laboratory ID:	10-217-08					
Naphthalene	**ND**	0.096	EPA 8270D/SIM	10-20-16	10-25-16	
2-Methylnaphthalene	**ND**	0.096	EPA 8270D/SIM	10-20-16	10-25-16	
1-Methylnaphthalene	**ND**	0.096	EPA 8270D/SIM	10-20-16	10-25-16	
Acenaphthylene	**ND**	0.096	EPA 8270D/SIM	10-20-16	10-25-16	
Acenaphthene	**ND**	0.096	EPA 8270D/SIM	10-20-16	10-25-16	
Fluorene	**ND**	0.096	EPA 8270D/SIM	10-20-16	10-25-16	
Phenanthrene	**ND**	0.096	EPA 8270D/SIM	10-20-16	10-25-16	
Anthracene	**ND**	0.096	EPA 8270D/SIM	10-20-16	10-25-16	
Fluoranthene	**ND**	0.096	EPA 8270D/SIM	10-20-16	10-25-16	
Pyrene	**ND**	0.096	EPA 8270D/SIM	10-20-16	10-25-16	
Benzo[a]anthracene	**ND**	0.0096	EPA 8270D/SIM	10-20-16	10-25-16	
Chrysene	**ND**	0.0096	EPA 8270D/SIM	10-20-16	10-25-16	
Benzo[b]fluoranthene	**ND**	0.0096	EPA 8270D/SIM	10-20-16	10-25-16	
Benzo(j,k)fluoranthene	**ND**	0.0096	EPA 8270D/SIM	10-20-16	10-25-16	
Benzo[a]pyrene	**ND**	0.0096	EPA 8270D/SIM	10-20-16	10-25-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0096	EPA 8270D/SIM	10-20-16	10-25-16	
Dibenz[a,h]anthracene	**ND**	0.0096	EPA 8270D/SIM	10-20-16	10-25-16	
Benzo[g,h,i]perylene	**ND**	0.0096	EPA 8270D/SIM	10-20-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*51*	*30 - 124*				
Pyrene-d10	*102*	*40 - 143*				
Terphenyl-d14	*111*	*27 - 127*				

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-AG2-101916**					
Laboratory ID:	10-217-09					
Naphthalene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
2-Methylnaphthalene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
1-Methylnaphthalene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Acenaphthylene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Acenaphthene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Fluorene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Phenanthrene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Anthracene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Fluoranthene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Pyrene	**ND**	0.094	EPA 8270D/SIM	10-20-16	10-25-16	
Benzo[a]anthracene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Chrysene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Benzo[b]fluoranthene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Benzo(j,k)fluoranthene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Benzo[a]pyrene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Dibenz[a,h]anthracene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Benzo[g,h,i]perylene	**ND**	0.0094	EPA 8270D/SIM	10-20-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*44*	*30 - 124*				
Pyrene-d10	*57*	*40 - 143*				
Terphenyl-d14	*61*	*27 - 127*				

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1020W1					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Fluorene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Anthracene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Pyrene	**ND**	0.10	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Chrysene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	10-20-16	10-20-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*47*	*30 - 124*				
Pyrene-d10	*75*	*40 - 143*				
Terphenyl-d14	*73*	*27 - 127*				

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1025W1					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Fluorene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Anthracene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Pyrene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Chrysene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*51*	*30 - 124*				
Pyrene-d10	*80*	*40 - 143*				
Terphenyl-d14	*81*	*27 - 127*				

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

PAHs EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1020W1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.320**	**0.242**	0.500	0.500	64	48	29 - 101	28	47	
Acenaphthylene	**0.271**	**0.248**	0.500	0.500	54	50	20 - 117	9	50	
Acenaphthene	**0.339**	**0.278**	0.500	0.500	68	56	37 - 109	20	43	
Fluorene	**0.380**	**0.340**	0.500	0.500	76	68	47 - 108	11	34	
Phenanthrene	**0.376**	**0.339**	0.500	0.500	75	68	49 - 109	10	28	
Anthracene	**0.490**	**0.466**	0.500	0.500	98	93	34 - 140	5	32	
Fluoranthene	**0.458**	**0.422**	0.500	0.500	92	84	45 - 120	8	39	
Pyrene	**0.455**	**0.422**	0.500	0.500	91	84	42 - 133	8	39	
Benzo[a]anthracene	**0.417**	**0.374**	0.500	0.500	83	75	71 - 117	11	28	
Chrysene	**0.433**	**0.408**	0.500	0.500	87	82	53 - 110	6	25	
Benzo[b]fluoranthene	**0.465**	**0.412**	0.500	0.500	93	82	53 - 123	12	37	
Benzo(j,k)fluoranthene	**0.456**	**0.416**	0.500	0.500	91	83	52 - 119	9	41	
Benzo[a]pyrene	**0.431**	**0.418**	0.500	0.500	86	84	37 - 129	3	33	
Indeno(1,2,3-c,d)pyrene	**0.417**	**0.382**	0.500	0.500	83	76	45 - 128	9	31	
Dibenz[a,h]anthracene	**0.429**	**0.399**	0.500	0.500	86	80	54 - 120	7	30	
Benzo[g,h,i]perylene	**0.407**	**0.368**	0.500	0.500	81	74	49 - 117	10	29	
Surrogate:										
2-Fluorobiphenyl					*53*	*44*	*30 - 124*			
Pyrene-d10					*84*	*79*	*40 - 143*			
Terphenyl-d14					*83*	*77*	*27 - 127*			

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

PAHs EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1025W1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**1.90**	**1.74**	2.50	2.50	76	70	29 - 101	9	47	
Acenaphthylene	**1.89**	**1.81**	2.50	2.50	76	72	20 - 117	4	50	
Acenaphthene	**2.00**	**1.93**	2.50	2.50	80	77	37 - 109	4	43	
Fluorene	**2.13**	**2.02**	2.50	2.50	85	81	47 - 108	5	34	
Phenanthrene	**2.06**	**2.05**	2.50	2.50	82	82	49 - 109	0	28	
Anthracene	**2.81**	**2.89**	2.50	2.50	112	116	34 - 140	3	32	
Fluoranthene	**2.16**	**2.22**	2.50	2.50	86	89	45 - 120	3	39	
Pyrene	**2.21**	**2.27**	2.50	2.50	88	91	42 - 133	3	39	
Benzo[a]anthracene	**2.31**	**2.39**	2.50	2.50	92	96	71 - 117	3	28	
Chrysene	**2.15**	**2.21**	2.50	2.50	86	88	53 - 110	3	25	
Benzo[b]fluoranthene	**2.20**	**2.32**	2.50	2.50	88	93	53 - 123	5	37	
Benzo(j,k)fluoranthene	**2.26**	**2.30**	2.50	2.50	90	92	52 - 119	2	41	
Benzo[a]pyrene	**2.24**	**2.34**	2.50	2.50	90	94	37 - 129	4	33	
Indeno(1,2,3-c,d)pyrene	**2.29**	**2.39**	2.50	2.50	92	96	45 - 128	4	31	
Dibenz[a,h]anthracene	**2.36**	**2.45**	2.50	2.50	94	98	54 - 120	4	30	
Benzo[g,h,i]perylene	**2.28**	**2.38**	2.50	2.50	91	95	49 - 117	4	29	
Surrogate:										
2-Fluorobiphenyl					*63*	*62*	*30 - 124*			
Pyrene-d10					*84*	*85*	*40 - 143*			
Terphenyl-d14					*80*	*82*	*27 - 127*			

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

TOTAL SUSPENDED SOLIDS
SM 2540D

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-21-GW**					
Laboratory ID:	10-217-03					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-20-16	10-21-16	
Client ID:	**MW-101-101916**					
Laboratory ID:	10-217-04					
Total Suspended Solids	**23**	4.0	SM 2540D	10-20-16	10-21-16	
Client ID:	**DOF-1-101916**					
Laboratory ID:	10-217-06					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-20-16	10-21-16	
Client ID:	**F-23-GW**					
Laboratory ID:	10-217-08					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-20-16	10-21-16	
Client ID:	**MW-AG2-101916**					
Laboratory ID:	10-217-09					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-20-16	10-21-16	

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TOTAL SUSPENDED SOLIDS
SM 2540D
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1020W1					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-20-16	10-21-16	

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	10-187-02								
	ORIG	DUP							
Total Suspended Solids	**ND**	**ND**	NA	NA	NA	NA	NA	20	
SPIKE BLANK									
Laboratory ID:	SB1020W1								
	SB		SB		SB				
Total Suspended Solids	**89.0**		100	NA	89	78-113	NA	NA	

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DISSOLVED LEAD
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	10-217-04					
Client ID:	**MW-101-101916**					
Lead	**ND**	1.0	200.8		10-20-16	
Lab ID:	10-217-06					
Client ID:	**DOF-1-101916**					
Lead	**ND**	1.0	200.8		10-20-16	

Date of Report: October 28, 2016
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Project: 1071-014

DISSOLVED LEAD
EPA 200.8
METHOD BLANK QUALITY CONTROL

Date Analyzed: 10-20-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB1020D2

Analyte	Method	Result	PQL
Lead	200.8	**ND**	1.0

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-217
Project: 1071-014

DISSOLVED LEAD
EPA 200.8
DUPLICATE QUALITY CONTROL

Date Analyzed: 10-20-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-218-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Lead	**ND**	**ND**	NA	1.0	

Date of Report: October 28, 2016
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DISSOLVED LEAD
EPA 200.8
MS/MSD QUALITY CONTROL

Date Analyzed: 10-20-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-218-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Lead	200	**183**	91	**186**	93	2	

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Project: 1071-014

% MOISTURE

Date Analyzed: 10-21-16

Client ID	Lab ID	% Moisture
F-22-7.0	10-217-05	21

OnSite Environmental Inc.

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.

Z -

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

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: Farallon
Project Number: 1071-014
Project Name: South Norfolk Street & East Marginal Way
Project Manager: Scott Allin
Sampled by: Ryan Ostrom

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 10-217

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	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	TSS	Dissolved Lead Gross/7000 series*				% Moisture
1	F-20-GW	10/19/16	0905	W	2				X				X														
2	F-21-6.7		0940	S	5																						
3	F-21-GW		1000	W	12			X	X	X			X									X					
4	MW-101-101916		1015	W	13			X	X	X			X									X	X				
5	F-22-7.0		1140	S	5			X	X	X																	X
6	DUP-1-101916		1150	W	13			X	X	X			X									X	X				
7	F-22-GW		1210	W	6			X	X MS/MSD	X																	
8	F-23-GW		1115	W	4			X	X	X			X									X					
9	MW-AG2-101916		1330	W	13			X	X	X			X									X					
	RO																										

	Signature	Company	Date	Time
Relinquished	Ryan Ostrom	Farallon	10/19/16	1630
Received			10/20/16	1150
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
* Lead and TSS Water Samples were Field Filtered
- Please hold Soil Samples

Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

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

October 28, 2016

Scott Allin
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 1071-014
Laboratory Reference No. 1610-218

Dear Scott:

Enclosed are the analytical results and associated quality control data for samples submitted on October 20, 2016.

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 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-218
Project: 1071-014

Case Narrative

Samples were collected on October 19, 2016 and received by the laboratory on October 20, 2016. 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 of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-218
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	10-218-01					
Client ID:	**F-21-GW**					
Arsenic	**ND**	3.0	200.8		10-20-16	
Lab ID:	10-218-02					
Client ID:	**MW-101-101916**					
Arsenic	**48**	3.0	200.8		10-20-16	
Lab ID:	10-218-03					
Client ID:	**F-23-GW**					
Arsenic	**ND**	3.0	200.8		10-20-16	
Lab ID:	10-218-04					
Client ID:	**DOF-1-101916**					
Arsenic	**ND**	3.0	200.8		10-20-16	
Lab ID:	10-218-05					
Client ID:	**MW-AG2-101916**					
Arsenic	**5.8**	3.0	200.8		10-20-16	

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-218
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8
METHOD BLANK QUALITY CONTROL

Date Analyzed: 10-20-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB1020D2

Analyte	Method	Result	PQL
Arsenic	200.8	**ND**	3.0

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-218
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8
DUPLICATE QUALITY CONTROL

Date Analyzed: 10-20-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-218-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**ND**	**ND**	NA	3.0	

Date of Report: October 28, 2016
Samples Submitted: October 20, 2016
Laboratory Reference: 1610-218
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8
MS/MSD QUALITY CONTROL

Date Analyzed: 10-20-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-218-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	200	**208**	104	**205**	103	1	

OnSite Environmental Inc.

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.

Z -

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

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: Farallon
Project Number: 1071-014
Project Name: South Norfolk Street & East Marginal Way
Project Manager: Scott Allin
Sampled by: Ryan Ostrom

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Days
- ☐ 3 Days
- ☒ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 10-218

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	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	Dissolved Arsenic 6000/7000 Series					% Moisture
1	F-21-GW	10/19/16	1000	W	1																	X					
2	MW-101-101916	↓	1015	↓	1																	X					
3	F-23-GW		1115		1																	X					
4	DOF-1-101916		1150		1																	X					
5	MW-AG2-101916		1330		1																	X					
	RO																										

	Signature	Company	Date	Time
Relinquished	Ryan Ostrom	Farallon	10/19/16	1630
Received			10/19/16	1150
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Samples Were field filtered

Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

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

October 31, 2016

Scott Allin
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 1071-014
Laboratory Reference No. 1610-244

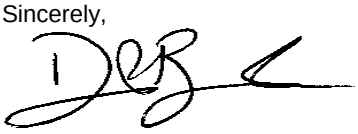
Dear Scott:

Enclosed are the analytical results and associated quality control data for samples submitted on October 21, 2016.

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, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-244
Project: 1071-014

Case Narrative

Samples were collected on October 21, 2016 and received by the laboratory on October 21, 2016. 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 of Report: October 31, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-244
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	10-244-01					
Client ID:	**MW-203-102116**					
Arsenic	**ND**	3.0	200.8		10-27-16	
Lab ID:	10-244-02					
Client ID:	**MW-4-102116**					
Arsenic	**38**	3.0	200.8		10-27-16	
Lab ID:	10-244-03					
Client ID:	**MW-AG1-102116**					
Arsenic	**4.8**	3.0	200.8		10-27-16	
Lab ID:	10-244-04					
Client ID:	**MW-207-102116**					
Arsenic	**27**	3.0	200.8		10-27-16	
Lab ID:	10-244-05					
Client ID:	**DOF-3-102116**					
Arsenic	**ND**	3.0	200.8		10-27-16	

Date of Report: October 31, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-244
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8
METHOD BLANK QUALITY CONTROL

Date Analyzed:	10-27-16
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	MB1025F1

Analyte	Method	Result	PQL
Arsenic	200.8	**ND**	3.0

Date of Report: October 31, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-244
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8
DUPLICATE QUALITY CONTROL

Date Analyzed: 10-27-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-269-06

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**ND**	**ND**	NA	3.0	

Date of Report: October 31, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-244
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8
MS/MSD QUALITY CONTROL

Date Analyzed: 10-27-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-269-06

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	200	**219**	109	**205**	102	7	

OnSite Environmental Inc.

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.

Z -

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

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: Farallon
Project Number: 1071-014
Project Name: South Norfolk Street & East Marginal Way
Project Manager: Scott Allin
Sampled by: Ryan Ostrom

Turnaround Request (in working days)

(Check One)

- ☐ Same Day ☐ 1 Day
- ☐ 2 Days ☐ 3 Days
- ☒ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 10-244

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	MW-203-102116	10/21/16	0958	W	1
2	MW-4-102116		1059		1
3	MW-AG1-102116		1203		1
4	MW-207-102116		1348		1
5	DOF-3-102116		1457		1
	RO				

Lab ID	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	Dissolved Arsenic 6000/7000 Series				% Moisture
1																		X				
2																		X				
3																		X				
4																		X				
5																		X				

	Signature	Company	Date	Time
Relinquished	Ryan Ostrom	Farallon	10/21/16	1635
Received		0825	10/21/16	1635
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Samples were field filtered

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

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

November 1, 2016

Scott Allin
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 1071-014
Laboratory Reference No. 1610-245

Dear Scott:

Enclosed are the analytical results and associated quality control data for samples submitted on October 21, 2016.

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: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

Case Narrative

Samples were collected on October 21, 2016 and received by the laboratory on October 21, 2016. 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.

Total Suspended Solids SM 2540D Analysis

Samples received were field filtered

PAHs EPA 8270D/SIM Analysis

Sample DOF-3-102116 had two surrogates outside of control limits. The sample was re-extracted and re-analyzed with similar results, indicating matrix effects.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

NWTPH-Gx

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-203-102116**					
Laboratory ID:	10-245-01					
Gasoline	**ND**	100	NWTPH-Gx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*61-118*				
Client ID:	**MW-4-102116**					
Laboratory ID:	10-245-02					
Gasoline	**ND**	400	NWTPH-Gx	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*81*	*61-118*				
Client ID:	**MW-AG1-102116**					
Laboratory ID:	10-245-03					
Gasoline	**ND**	400	NWTPH-Gx	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*81*	*61-118*				
Client ID:	**MW-207-102116**					
Laboratory ID:	10-245-04					
Gasoline	**ND**	100	NWTPH-Gx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*84*	*61-118*				
Client ID:	**DOF-3-102116**					
Laboratory ID:	10-245-05					
Gasoline	**ND**	100	NWTPH-Gx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*61-118*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

NWTPH-Gx
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1025W2					
Gasoline	**ND**	100	NWTPH-Gx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*85*	*61-118*				
Laboratory ID:	MB1026W1					
Gasoline	**ND**	100	NWTPH-Gx	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*81*	*61-118*				

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	10-245-01								
	ORIG	DUP							
Gasoline	**ND**	**ND**	NA	NA	NA	NA	NA	30	
Surrogate:									
Fluorobenzene					*88* *84*	*61-118*			
Laboratory ID:	10-274-01								
	ORIG	DUP							
Gasoline	**ND**	**ND**	NA	NA	NA	NA	NA	30	
Surrogate:									
Fluorobenzene					*85* *82*	*61-118*			

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-203-102116**					
Laboratory ID:	10-245-01					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	10-27-16	10-27-16	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	10-27-16	10-27-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*96*	*50-150*				
Client ID:	**MW-4-102116**					
Laboratory ID:	10-245-02					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	10-27-16	10-27-16	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	10-27-16	10-27-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*75*	*50-150*				
Client ID:	**MW-AG1-102116**					
Laboratory ID:	10-245-03					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	10-27-16	10-27-16	
Lube Oil Range Organics	**ND**	0.42	NWTPH-Dx	10-27-16	10-27-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*52*	*50-150*				
Client ID:	**MW-207-102116**					
Laboratory ID:	10-245-04					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	10-27-16	10-27-16	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	10-27-16	10-27-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*82*	*50-150*				
Client ID:	**DOF-3-102116**					
Laboratory ID:	10-245-05					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	10-27-16	10-27-16	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	10-27-16	10-27-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*118*	*50-150*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1027W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	10-27-16	10-27-16	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	10-27-16	10-27-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*105*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-231-02										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*117*	*110*	*50-150*			

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

VOLATILES EPA 8260C
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-203-102116**					
Laboratory ID:	10-245-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chloromethane	ND	1.0	EPA 8260C	10-25-16	10-25-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromomethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chloroethane	ND	1.0	EPA 8260C	10-25-16	10-25-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Acetone	ND	5.0	EPA 8260C	10-25-16	10-25-16	
Iodomethane	ND	1.5	EPA 8260C	10-25-16	10-25-16	
Carbon Disulfide	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-25-16	10-25-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-25-16	10-25-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Butanone	ND	7.0	EPA 8260C	10-25-16	10-25-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chloroform	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Benzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Trichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Dibromomethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Chloroethyl Vinyl Ether	ND	13	EPA 8260C	10-25-16	10-25-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-25-16	10-25-16	
Toluene	ND	1.0	EPA 8260C	10-25-16	10-25-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-25-16	10-25-16	

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-203-102116**					
Laboratory ID:	10-245-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Tetrachloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Hexanone	ND	2.6	EPA 8260C	10-25-16	10-25-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-25-16	10-25-16	
o-Xylene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Styrene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromoform	ND	1.3	EPA 8260C	10-25-16	10-25-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dibromo-3-chloropropane	ND	1.4	EPA 8260C	10-25-16	10-25-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Naphthalene	ND	1.3	EPA 8260C	10-25-16	10-25-16	
1,2,3-Trichlorobenzene	ND	0.27	EPA 8260C	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*77-129*				
Toluene-d8	*103*	*80-127*				
4-Bromofluorobenzene	*97*	*80-125*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-4-102116**					
Laboratory ID:	10-245-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chloromethane	ND	1.0	EPA 8260C	10-25-16	10-25-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromomethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chloroethane	ND	1.0	EPA 8260C	10-25-16	10-25-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Acetone	ND	5.0	EPA 8260C	10-25-16	10-25-16	
Iodomethane	ND	1.5	EPA 8260C	10-25-16	10-25-16	
Carbon Disulfide	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-25-16	10-25-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-25-16	10-25-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Butanone	ND	7.0	EPA 8260C	10-25-16	10-25-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chloroform	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Benzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Trichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Dibromomethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Chloroethyl Vinyl Ether	ND	13	EPA 8260C	10-25-16	10-25-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-25-16	10-25-16	
Toluene	ND	1.0	EPA 8260C	10-25-16	10-25-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-25-16	10-25-16	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-4-102116**					
Laboratory ID:	10-245-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Tetrachloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Hexanone	ND	2.6	EPA 8260C	10-25-16	10-25-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-25-16	10-25-16	
o-Xylene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Styrene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromoform	ND	1.3	EPA 8260C	10-25-16	10-25-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dibromo-3-chloropropane	ND	1.4	EPA 8260C	10-25-16	10-25-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Naphthalene	ND	1.3	EPA 8260C	10-25-16	10-25-16	
1,2,3-Trichlorobenzene	ND	0.27	EPA 8260C	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*98*	*77-129*				
Toluene-d8	*97*	*80-127*				
4-Bromofluorobenzene	*89*	*80-125*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-AG1-102116**					
Laboratory ID:	10-245-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chloromethane	ND	1.0	EPA 8260C	10-25-16	10-25-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromomethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chloroethane	ND	1.0	EPA 8260C	10-25-16	10-25-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Acetone	ND	5.0	EPA 8260C	10-25-16	10-25-16	
Iodomethane	ND	1.5	EPA 8260C	10-25-16	10-25-16	
Carbon Disulfide	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-25-16	10-25-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-25-16	10-25-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Butanone	ND	7.0	EPA 8260C	10-25-16	10-25-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chloroform	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Benzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Trichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Dibromomethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Chloroethyl Vinyl Ether	ND	13	EPA 8260C	10-25-16	10-25-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-25-16	10-25-16	
Toluene	ND	1.0	EPA 8260C	10-25-16	10-25-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-25-16	10-25-16	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-AG1-102116**					
Laboratory ID:	10-245-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Tetrachloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Hexanone	ND	2.6	EPA 8260C	10-25-16	10-25-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-25-16	10-25-16	
o-Xylene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Styrene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromoform	ND	1.3	EPA 8260C	10-25-16	10-25-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dibromo-3-chloropropane	ND	1.4	EPA 8260C	10-25-16	10-25-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Naphthalene	ND	1.3	EPA 8260C	10-25-16	10-25-16	
1,2,3-Trichlorobenzene	ND	0.27	EPA 8260C	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*77-129*				
Toluene-d8	*95*	*80-127*				
4-Bromofluorobenzene	*90*	*80-125*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-207-102116**					
Laboratory ID:	10-245-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chloromethane	ND	1.0	EPA 8260C	10-25-16	10-25-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromomethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chloroethane	ND	1.0	EPA 8260C	10-25-16	10-25-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Acetone	ND	5.0	EPA 8260C	10-25-16	10-25-16	
Iodomethane	ND	1.5	EPA 8260C	10-25-16	10-25-16	
Carbon Disulfide	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-25-16	10-25-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-25-16	10-25-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Butanone	ND	7.0	EPA 8260C	10-25-16	10-25-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chloroform	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Benzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Trichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Dibromomethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Chloroethyl Vinyl Ether	ND	13	EPA 8260C	10-25-16	10-25-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-25-16	10-25-16	
Toluene	ND	1.0	EPA 8260C	10-25-16	10-25-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-25-16	10-25-16	

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-207-102116**					
Laboratory ID:	10-245-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Tetrachloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Hexanone	ND	2.6	EPA 8260C	10-25-16	10-25-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-25-16	10-25-16	
o-Xylene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Styrene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromoform	ND	1.3	EPA 8260C	10-25-16	10-25-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dibromo-3-chloropropane	ND	1.4	EPA 8260C	10-25-16	10-25-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Naphthalene	ND	1.3	EPA 8260C	10-25-16	10-25-16	
1,2,3-Trichlorobenzene	ND	0.27	EPA 8260C	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*104*	*77-129*				
Toluene-d8	*103*	*80-127*				
4-Bromofluorobenzene	*97*	*80-125*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DOF-3-102116**					
Laboratory ID:	10-245-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chloromethane	ND	1.0	EPA 8260C	10-25-16	10-25-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromomethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chloroethane	ND	1.0	EPA 8260C	10-25-16	10-25-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Acetone	ND	5.0	EPA 8260C	10-25-16	10-25-16	
Iodomethane	ND	1.5	EPA 8260C	10-25-16	10-25-16	
Carbon Disulfide	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-25-16	10-25-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-25-16	10-25-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Butanone	ND	7.0	EPA 8260C	10-25-16	10-25-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chloroform	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Benzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Trichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Dibromomethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Chloroethyl Vinyl Ether	ND	13	EPA 8260C	10-25-16	10-25-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-25-16	10-25-16	
Toluene	ND	1.0	EPA 8260C	10-25-16	10-25-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-25-16	10-25-16	

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
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Project: 1071-014

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DOF-3-102116**					
Laboratory ID:	10-245-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Tetrachloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Hexanone	ND	2.6	EPA 8260C	10-25-16	10-25-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-25-16	10-25-16	
o-Xylene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Styrene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromoform	ND	1.3	EPA 8260C	10-25-16	10-25-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dibromo-3-chloropropane	ND	1.4	EPA 8260C	10-25-16	10-25-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Naphthalene	ND	1.3	EPA 8260C	10-25-16	10-25-16	
1,2,3-Trichlorobenzene	ND	0.27	EPA 8260C	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*77-129*				
Toluene-d8	*102*	*80-127*				
4-Bromofluorobenzene	*93*	*80-125*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1025W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chloromethane	ND	1.0	EPA 8260C	10-25-16	10-25-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromomethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chloroethane	ND	1.0	EPA 8260C	10-25-16	10-25-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Acetone	ND	5.0	EPA 8260C	10-25-16	10-25-16	
Iodomethane	ND	1.5	EPA 8260C	10-25-16	10-25-16	
Carbon Disulfide	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-25-16	10-25-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-25-16	10-25-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Butanone	ND	7.0	EPA 8260C	10-25-16	10-25-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chloroform	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Benzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Trichloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Dibromomethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Chloroethyl Vinyl Ether	ND	13	EPA 8260C	10-25-16	10-25-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-25-16	10-25-16	
Toluene	ND	1.0	EPA 8260C	10-25-16	10-25-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-25-16	10-25-16	

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1025W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Tetrachloroethene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Hexanone	ND	2.6	EPA 8260C	10-25-16	10-25-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-25-16	10-25-16	
o-Xylene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Styrene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromoform	ND	1.3	EPA 8260C	10-25-16	10-25-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Bromobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-25-16	10-25-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
1,2-Dibromo-3-chloropropane	ND	1.4	EPA 8260C	10-25-16	10-25-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-25-16	10-25-16	
Naphthalene	ND	1.3	EPA 8260C	10-25-16	10-25-16	
1,2,3-Trichlorobenzene	ND	0.27	EPA 8260C	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*77-129*				
Toluene-d8	*104*	*80-127*				
4-Bromofluorobenzene	*95*	*80-125*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1025W2									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.0**	**10.5**	10.0	10.0	100	105	63-127	5	17	
Benzene	**10.1**	**10.6**	10.0	10.0	101	106	76-121	5	12	
Trichloroethene	**7.94**	**8.40**	10.0	10.0	79	84	64-114	6	15	
Toluene	**8.74**	**9.43**	10.0	10.0	87	94	82-115	8	13	
Chlorobenzene	**8.68**	**9.10**	10.0	10.0	87	91	80-115	5	14	
Surrogate:										
Dibromofluoromethane					*95*	*95*	*77-129*			
Toluene-d8					*102*	*103*	*80-127*			
4-Bromofluorobenzene					*97*	*96*	*80-125*			

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-203-102116**					
Laboratory ID:	10-245-01					
Naphthalene	**ND**	0.095	EPA 8270D/SIM	10-28-16	10-28-16	
2-Methylnaphthalene	**ND**	0.095	EPA 8270D/SIM	10-28-16	10-28-16	
1-Methylnaphthalene	**ND**	0.095	EPA 8270D/SIM	10-28-16	10-28-16	
Acenaphthylene	**ND**	0.095	EPA 8270D/SIM	10-28-16	10-28-16	
Acenaphthene	**ND**	0.095	EPA 8270D/SIM	10-28-16	10-28-16	
Fluorene	**ND**	0.095	EPA 8270D/SIM	10-28-16	10-28-16	
Phenanthrene	**ND**	0.095	EPA 8270D/SIM	10-28-16	10-28-16	
Anthracene	**ND**	0.095	EPA 8270D/SIM	10-28-16	10-28-16	
Fluoranthene	**ND**	0.095	EPA 8270D/SIM	10-28-16	10-28-16	
Pyrene	**ND**	0.095	EPA 8270D/SIM	10-28-16	10-28-16	
Benzo[a]anthracene	**ND**	0.0095	EPA 8270D/SIM	10-28-16	10-28-16	
Chrysene	**ND**	0.0095	EPA 8270D/SIM	10-28-16	10-28-16	
Benzo[b]fluoranthene	**ND**	0.0095	EPA 8270D/SIM	10-28-16	10-28-16	
Benzo(j,k)fluoranthene	**ND**	0.0095	EPA 8270D/SIM	10-28-16	10-28-16	
Benzo[a]pyrene	**ND**	0.0095	EPA 8270D/SIM	10-28-16	10-28-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0095	EPA 8270D/SIM	10-28-16	10-28-16	
Dibenz[a,h]anthracene	**ND**	0.0095	EPA 8270D/SIM	10-28-16	10-28-16	
Benzo[g,h,i]perylene	**ND**	0.0095	EPA 8270D/SIM	10-28-16	10-28-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*61*	*30 - 124*				
Pyrene-d10	*78*	*40 - 143*				
Terphenyl-d14	*83*	*27 - 127*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-4-102116**					
Laboratory ID:	10-245-02					
Naphthalene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
2-Methylnaphthalene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
1-Methylnaphthalene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Acenaphthylene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Acenaphthene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Fluorene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Phenanthrene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Anthracene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Fluoranthene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Pyrene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo[a]anthracene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Chrysene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo[b]fluoranthene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo(j,k)fluoranthene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo[a]pyrene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Dibenz[a,h]anthracene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo[g,h,i]perylene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*43*	*30 - 124*				
Pyrene-d10	*52*	*40 - 143*				
Terphenyl-d14	*59*	*27 - 127*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-AG1-102116**					
Laboratory ID:	10-245-03					
Naphthalene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
2-Methylnaphthalene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
1-Methylnaphthalene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Acenaphthylene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Acenaphthene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Fluorene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Phenanthrene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Anthracene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Fluoranthene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Pyrene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo[a]anthracene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Chrysene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo[b]fluoranthene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo(j,k)fluoranthene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo[a]pyrene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Dibenz[a,h]anthracene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo[g,h,i]perylene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*55*	*30 - 124*				
Pyrene-d10	*68*	*40 - 143*				
Terphenyl-d14	*78*	*27 - 127*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-207-102116**					
Laboratory ID:	10-245-04					
Naphthalene	**ND**	0.095	EPA 8270D/SIM	10-25-16	10-26-16	
2-Methylnaphthalene	**ND**	0.095	EPA 8270D/SIM	10-25-16	10-26-16	
1-Methylnaphthalene	**ND**	0.095	EPA 8270D/SIM	10-25-16	10-26-16	
Acenaphthylene	**ND**	0.095	EPA 8270D/SIM	10-25-16	10-26-16	
Acenaphthene	**ND**	0.095	EPA 8270D/SIM	10-25-16	10-26-16	
Fluorene	**ND**	0.095	EPA 8270D/SIM	10-25-16	10-26-16	
Phenanthrene	**ND**	0.095	EPA 8270D/SIM	10-25-16	10-26-16	
Anthracene	**ND**	0.095	EPA 8270D/SIM	10-25-16	10-26-16	
Fluoranthene	**ND**	0.095	EPA 8270D/SIM	10-25-16	10-26-16	
Pyrene	**ND**	0.095	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[a]anthracene	**ND**	0.0095	EPA 8270D/SIM	10-25-16	10-26-16	
Chrysene	**ND**	0.0095	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[b]fluoranthene	**ND**	0.0095	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo(j,k)fluoranthene	**ND**	0.0095	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[a]pyrene	**ND**	0.0095	EPA 8270D/SIM	10-25-16	10-26-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0095	EPA 8270D/SIM	10-25-16	10-26-16	
Dibenz[a,h]anthracene	**ND**	0.0095	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[g,h,i]perylene	**ND**	0.0095	EPA 8270D/SIM	10-25-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*65*	*30 - 124*				
Pyrene-d10	*77*	*40 - 143*				
Terphenyl-d14	*81*	*27 - 127*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DOF-3-102116**					
Laboratory ID:	10-245-05					
Naphthalene	**ND**	0.094	EPA 8270D/SIM	10-25-16	10-26-16	
2-Methylnaphthalene	**ND**	0.094	EPA 8270D/SIM	10-25-16	10-26-16	
1-Methylnaphthalene	**ND**	0.094	EPA 8270D/SIM	10-25-16	10-26-16	
Acenaphthylene	**ND**	0.094	EPA 8270D/SIM	10-25-16	10-26-16	
Acenaphthene	**ND**	0.094	EPA 8270D/SIM	10-25-16	10-26-16	
Fluorene	**ND**	0.094	EPA 8270D/SIM	10-25-16	10-26-16	
Phenanthrene	**ND**	0.094	EPA 8270D/SIM	10-25-16	10-26-16	
Anthracene	**ND**	0.094	EPA 8270D/SIM	10-25-16	10-26-16	
Fluoranthene	**ND**	0.094	EPA 8270D/SIM	10-25-16	10-26-16	
Pyrene	**ND**	0.094	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[a]anthracene	**ND**	0.0094	EPA 8270D/SIM	10-25-16	10-26-16	
Chrysene	**ND**	0.0094	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[b]fluoranthene	**ND**	0.0094	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo(j,k)fluoranthene	**ND**	0.0094	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[a]pyrene	**ND**	0.0094	EPA 8270D/SIM	10-25-16	10-26-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0094	EPA 8270D/SIM	10-25-16	10-26-16	
Dibenz[a,h]anthracene	**ND**	0.0094	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[g,h,i]perylene	**ND**	0.0094	EPA 8270D/SIM	10-25-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*24*	*30 - 124*				Q
Pyrene-d10	*29*	*40 - 143*				Q
Terphenyl-d14	*29*	*27 - 127*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1025W1					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Fluorene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Anthracene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Pyrene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Chrysene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*51*	*30 - 124*				
Pyrene-d10	*80*	*40 - 143*				
Terphenyl-d14	*81*	*27 - 127*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1028W1					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	10-28-16	10-28-16	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	10-28-16	10-28-16	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	10-28-16	10-28-16	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	10-28-16	10-28-16	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	10-28-16	10-28-16	
Fluorene	**ND**	0.10	EPA 8270D/SIM	10-28-16	10-28-16	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	10-28-16	10-28-16	
Anthracene	**ND**	0.10	EPA 8270D/SIM	10-28-16	10-28-16	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	10-28-16	10-28-16	
Pyrene	**ND**	0.10	EPA 8270D/SIM	10-28-16	10-28-16	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	10-28-16	10-28-16	
Chrysene	**ND**	0.010	EPA 8270D/SIM	10-28-16	10-28-16	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	10-28-16	10-28-16	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	10-28-16	10-28-16	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	10-28-16	10-28-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	10-28-16	10-28-16	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	10-28-16	10-28-16	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	10-28-16	10-28-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*48*	*30 - 124*				
Pyrene-d10	*71*	*40 - 143*				
Terphenyl-d14	*72*	*27 - 127*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

PAHs EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1025W1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**1.90**	**1.74**	2.50	2.50	76	70	29 - 101	9	47	
Acenaphthylene	**1.89**	**1.81**	2.50	2.50	76	72	20 - 117	4	50	
Acenaphthene	**2.00**	**1.93**	2.50	2.50	80	77	37 - 109	4	43	
Fluorene	**2.13**	**2.02**	2.50	2.50	85	81	47 - 108	5	34	
Phenanthrene	**2.06**	**2.05**	2.50	2.50	82	82	49 - 109	0	28	
Anthracene	**2.81**	**2.89**	2.50	2.50	112	116	34 - 140	3	32	
Fluoranthene	**2.16**	**2.22**	2.50	2.50	86	89	45 - 120	3	39	
Pyrene	**2.21**	**2.27**	2.50	2.50	88	91	42 - 133	3	39	
Benzo[a]anthracene	**2.31**	**2.39**	2.50	2.50	92	96	71 - 117	3	28	
Chrysene	**2.15**	**2.21**	2.50	2.50	86	88	53 - 110	3	25	
Benzo[b]fluoranthene	**2.20**	**2.32**	2.50	2.50	88	93	53 - 123	5	37	
Benzo(j,k)fluoranthene	**2.26**	**2.30**	2.50	2.50	90	92	52 - 119	2	41	
Benzo[a]pyrene	**2.24**	**2.34**	2.50	2.50	90	94	37 - 129	4	33	
Indeno(1,2,3-c,d)pyrene	**2.29**	**2.39**	2.50	2.50	92	96	45 - 128	4	31	
Dibenz[a,h]anthracene	**2.36**	**2.45**	2.50	2.50	94	98	54 - 120	4	30	
Benzo[g,h,i]perylene	**2.28**	**2.38**	2.50	2.50	91	95	49 - 117	4	29	
Surrogate:										
2-Fluorobiphenyl					*63*	*62*	*30 - 124*			
Pyrene-d10					*84*	*85*	*40 - 143*			
Terphenyl-d14					*80*	*82*	*27 - 127*			

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

PAHs EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1028W1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.337**	**0.329**	0.500	0.500	67	66	29 - 101	2	47	
Acenaphthylene	**0.336**	**0.282**	0.500	0.500	67	56	20 - 117	17	50	
Acenaphthene	**0.352**	**0.353**	0.500	0.500	70	71	37 - 109	0	43	
Fluorene	**0.379**	**0.382**	0.500	0.500	76	76	47 - 108	1	34	
Phenanthrene	**0.360**	**0.372**	0.500	0.500	72	74	49 - 109	3	28	
Anthracene	**0.510**	**0.497**	0.500	0.500	102	99	34 - 140	3	32	
Fluoranthene	**0.388**	**0.399**	0.500	0.500	78	80	45 - 120	3	39	
Pyrene	**0.387**	**0.402**	0.500	0.500	77	80	42 - 133	4	39	
Benzo[a]anthracene	**0.408**	**0.426**	0.500	0.500	82	85	71 - 117	4	28	
Chrysene	**0.413**	**0.430**	0.500	0.500	83	86	53 - 110	4	25	
Benzo[b]fluoranthene	**0.424**	**0.443**	0.500	0.500	85	89	53 - 123	4	37	
Benzo(j,k)fluoranthene	**0.441**	**0.452**	0.500	0.500	88	90	52 - 119	2	41	
Benzo[a]pyrene	**0.389**	**0.358**	0.500	0.500	78	72	37 - 129	8	33	
Indeno(1,2,3-c,d)pyrene	**0.378**	**0.406**	0.500	0.500	76	81	45 - 128	7	31	
Dibenz[a,h]anthracene	**0.375**	**0.397**	0.500	0.500	75	79	54 - 120	6	30	
Benzo[g,h,i]perylene	**0.351**	**0.370**	0.500	0.500	70	74	49 - 117	5	29	
Surrogate:										
2-Fluorobiphenyl					*53*	*54*	*30 - 124*			
Pyrene-d10					*79*	*80*	*40 - 143*			
Terphenyl-d14					*78*	*81*	*27 - 127*			

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

TOTAL SUSPENDED SOLIDS
SM 2540D

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-203-102116**					
Laboratory ID:	10-245-01					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-25-26	10-26-16	
Client ID:	**MW-4-102116**					
Laboratory ID:	10-245-02					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-25-26	10-26-16	
Client ID:	**MW-AG1-102116**					
Laboratory ID:	10-245-03					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-25-26	10-26-16	
Client ID:	**MW-207-102116**					
Laboratory ID:	10-245-04					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-25-26	10-26-16	
Client ID:	**DOF-3-102116**					
Laboratory ID:	10-245-05					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-25-26	10-26-16	

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

TOTAL SUSPENDED SOLIDS
SM 2540D
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1025W1					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-25-26	10-26-16	

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	10-245-01								
	ORIG	DUP							
Total Suspended Solids	**ND**	**ND**	NA	NA	NA	NA	NA	20	
SPIKE BLANK									
Laboratory ID:	SB1025W1								
	SB		SB		SB				
Total Suspended Solids	**92.0**		100	NA	92	78-113	NA	NA	

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

DISSOLVED LEAD
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	10-245-05					
Client ID:	**DOF-3-102116**					
Lead	**ND**	1.0	200.8		10-27-16	

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

DISSOLVED LEAD
EPA 200.8
METHOD BLANK QUALITY CONTROL

Date Analyzed: 10-27-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB1025F1

Analyte	Method	Result	PQL
Lead	200.8	**ND**	1.0

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

DISSOLVED LEAD
EPA 200.8
DUPLICATE QUALITY CONTROL

Date Analyzed: 10-27-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-269-06

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Lead	**ND**	**ND**	NA	1.0	

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-245
Project: 1071-014

DISSOLVED LEAD
EPA 200.8
MS/MSD QUALITY CONTROL

Date Analyzed: 10-27-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-269-06

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Lead	200	**190**	95	**186**	93	2	

OnSite Environmental Inc.

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.

Z -

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

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 10-245

Company: Farallon
Project Number: 1071-014
Project Name: South Norfolk Street & East Marginal Way
Project Manager: Scott Allin
Sampled by: Ryan Ostrom

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	MW-203-102116	10/21/16	0958	W	11
2	MW-4-102116		1059		11
3	MW-AG1-102116		1203		11
4	MW-207-102116		1348		11
5	DOF-3-102116		1457		12
	RO				

Lab ID	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	TSS	Dissolved Lead Comp/Two series			% Moisture
1			X	X	X				X									X				
2			X	X	X				X									X				
3			X	X	X				X									X				
4			X	X	X				X									X				
5			X	X	X				X									X	X			

	Signature	Company	Date	Time
Relinquished	Ryan Ostrom	Farallon	10/21/16	1635
Received		COES	10/21/16	1635
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
TSS & Lead Samples were Field filtered.

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

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

November 1, 2016

Scott Allin
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 1071-014
Laboratory Reference No. 1610-247

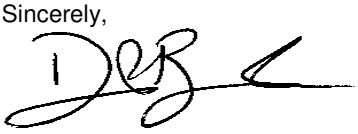
Dear Scott:

Enclosed are the analytical results and associated quality control data for samples submitted on October 21, 2016.

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: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

Case Narrative

Samples were collected on October 20, 2016 and received by the laboratory on October 21, 2016. 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.

NWTPH Gx/BTEX (soil) Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Volatiles EPA 8260C Analysis

Some MTCA Method A cleanup levels are non-achievable for sample F-1-GW due to sample matrix effects.

PAHs EPA 8270D/SIM (water) Analysis

Sample F-1-GW required dilution due to interference caused by the sample matrix, resulting in raised PQLs.

Total Suspended Solids SM 2540D Analysis

Samples received were field filtered.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-2-7.0**					
Laboratory ID:	10-247-01					
Benzene	**ND**	0.020	EPA 8021B	10-26-16	10-26-16	
Toluene	**ND**	0.057	EPA 8021B	10-26-16	10-26-16	
Ethyl Benzene	**ND**	0.057	EPA 8021B	10-26-16	10-26-16	
m,p-Xylene	**ND**	0.057	EPA 8021B	10-26-16	10-26-16	
o-Xylene	**ND**	0.057	EPA 8021B	10-26-16	10-26-16	
Gasoline	**ND**	5.7	NWTPH-Gx	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*92*	*63-124*				
Client ID:	**F-1-5.7**					
Laboratory ID:	10-247-05					
Benzene	**ND**	0.022	EPA 8021B	10-26-16	10-28-16	
Toluene	**ND**	0.11	EPA 8021B	10-26-16	10-28-16	
Ethyl Benzene	**0.16**	0.11	EPA 8021B	10-26-16	10-28-16	
m,p-Xylene	**0.25**	0.11	EPA 8021B	10-26-16	10-28-16	
o-Xylene	**ND**	0.11	EPA 8021B	10-26-16	10-28-16	
Gasoline	**ND**	28	NWTPH-Gx	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*63-124*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1026S1					
Benzene	**ND**	0.020	EPA 8021B	10-26-16	10-26-16	
Toluene	**ND**	0.050	EPA 8021B	10-26-16	10-26-16	
Ethyl Benzene	**ND**	0.050	EPA 8021B	10-26-16	10-26-16	
m,p-Xylene	**ND**	0.050	EPA 8021B	10-26-16	10-26-16	
o-Xylene	**ND**	0.050	EPA 8021B	10-26-16	10-26-16	
Gasoline	**ND**	5.0	NWTPH-Gx	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*63-124*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-246-01										
	ORIG	DUP									
Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Toluene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Ethyl Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
m,p-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
o-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*88*	*90*	*63-124*			
SPIKE BLANKS											
Laboratory ID:	SB1026S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.913**	**0.922**	1.00	1.00		**91**	**92**	70-124	1	12	
Toluene	**0.915**	**0.929**	1.00	1.00		**92**	**93**	73-119	2	12	
Ethyl Benzene	**0.931**	**0.946**	1.00	1.00		**93**	**95**	74-117	2	12	
m,p-Xylene	**0.886**	**0.935**	1.00	1.00		**89**	**94**	75-117	5	13	
o-Xylene	**0.909**	**0.916**	1.00	1.00		**91**	**92**	75-116	1	12	
Surrogate:											
Fluorobenzene						*93*	*89*	*63-124*			

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

NWTPH-Gx/BTEX

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-2-GW**					
Laboratory ID:	10-247-03					
Benzene	**ND**	1.0	EPA 8021B	10-25-16	10-25-16	
Toluene	**ND**	1.0	EPA 8021B	10-25-16	10-25-16	
Ethyl Benzene	**ND**	1.0	EPA 8021B	10-25-16	10-25-16	
m,p-Xylene	**ND**	1.0	EPA 8021B	10-25-16	10-25-16	
o-Xylene	**ND**	1.0	EPA 8021B	10-25-16	10-25-16	
Gasoline	**ND**	100	NWTPH-Gx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*85*	*61-118*				
Client ID:	**F-1-GW**					
Laboratory ID:	10-247-07					
Gasoline	**ND**	100	NWTPH-Gx	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*81*	*61-118*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1025W1					
Benzene	**ND**	1.0	EPA 8021B	10-25-16	10-25-16	
Toluene	**ND**	1.0	EPA 8021B	10-25-16	10-25-16	
Ethyl Benzene	**ND**	1.0	EPA 8021B	10-25-16	10-25-16	
m,p-Xylene	**ND**	1.0	EPA 8021B	10-25-16	10-25-16	
o-Xylene	**ND**	1.0	EPA 8021B	10-25-16	10-25-16	
Gasoline	**ND**	100	NWTPH-Gx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*83*	*61-118*				
Laboratory ID:	MB1026W1					
Gasoline	**ND**	100	NWTPH-Gx	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*81*	*61-118*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-264-01										
	ORIG	DUP									
Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Toluene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Ethyl Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
m,p-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
o-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*85*	*89*	*61-118*			
Laboratory ID:	10-274-01										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*85*	*82*	*61-118*			
SPIKE BLANKS											
Laboratory ID:	SB1025W1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**44.4**	**45.1**	50.0	50.0		**89**	**90**	79-120	2	11	
Toluene	**45.1**	**45.7**	50.0	50.0		**90**	**91**	79-118	1	12	
Ethyl Benzene	**45.1**	**45.7**	50.0	50.0		**90**	**91**	80-117	1	12	
m,p-Xylene	**44.5**	**45.2**	50.0	50.0		**89**	**90**	80-117	2	12	
o-Xylene	**43.9**	**44.5**	50.0	50.0		**88**	**89**	80-116	1	11	
Surrogate:											
Fluorobenzene						*87*	*87*	*61-118*			

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-2-7.0**					
Laboratory ID:	10-247-01					
Diesel Range Organics	**ND**	28	NWTPH-Dx	10-26-16	10-26-16	
Lube Oil Range Organics	**ND**	56	NWTPH-Dx	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*103*	*50-150*				
Client ID:	**F-1-5.7**					
Laboratory ID:	10-247-05					
Diesel Fuel #2	**5900**	140	NWTPH-Dx	10-26-16	10-27-16	
Lube Oil Range Organics	**ND**	280	NWTPH-Dx	10-26-16	10-27-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*119*	*50-150*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1026S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	10-26-16	10-26-16	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*102*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-187-06										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*90*	*90*	*50-150*			

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-2-GW**					
Laboratory ID:	10-247-03					
Diesel Range Organics	**0.61**	0.26	NWTPH-Dx	10-25-16	10-25-16	
Lube Oil Range Organics	**0.58**	0.42	NWTPH-Dx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*101*	*50-150*				
Client ID:	**F-1-GW**					
Laboratory ID:	10-247-07					
Diesel Range Organics	**ND**	0.27	NWTPH-Dx	10-25-16	10-25-16	
Lube Oil Range Organics	**0.48**	0.43	NWTPH-Dx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*102*	*50-150*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1025W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	10-25-16	10-25-16	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-217-03										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*104*	*91*	*50-150*			

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

VOLATILES EPA 8260C
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-1-GW**					
Laboratory ID:	10-247-07					
Dichlorodifluoromethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Chloromethane	ND	2.0	EPA 8260C	10-24-16	10-24-16	
Vinyl Chloride	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Bromomethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Chloroethane	ND	2.0	EPA 8260C	10-24-16	10-24-16	
Trichlorofluoromethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloroethene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Acetone	ND	10	EPA 8260C	10-24-16	10-24-16	
Iodomethane	ND	2.0	EPA 8260C	10-24-16	10-24-16	
Carbon Disulfide	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Methylene Chloride	ND	2.0	EPA 8260C	10-24-16	10-24-16	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Methyl t-Butyl Ether	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloroethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Vinyl Acetate	ND	2.0	EPA 8260C	10-24-16	10-24-16	
2,2-Dichloropropane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
(cis) 1,2-Dichloroethene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
2-Butanone	ND	10	EPA 8260C	10-24-16	10-24-16	
Bromochloromethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Chloroform	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,1,1-Trichloroethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Carbon Tetrachloride	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloropropene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Benzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,2-Dichloroethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Trichloroethene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,2-Dichloropropane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Dibromomethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Bromodichloromethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
2-Chloroethyl Vinyl Ether	ND	11	EPA 8260C	10-24-16	10-24-16	
(cis) 1,3-Dichloropropene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Methyl Isobutyl Ketone	ND	4.0	EPA 8260C	10-24-16	10-24-16	
Toluene	ND	2.0	EPA 8260C	10-24-16	10-24-16	
(trans) 1,3-Dichloropropene	ND	0.40	EPA 8260C	10-24-16	10-24-16	

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

VOLATILES EPA 8260C
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-1-GW**					
Laboratory ID:	10-247-07					
1,1,2-Trichloroethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Tetrachloroethene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,3-Dichloropropane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
2-Hexanone	ND	4.0	EPA 8260C	10-24-16	10-24-16	
Dibromochloromethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,2-Dibromoethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Chlorobenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Ethylbenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
m,p-Xylene	ND	0.80	EPA 8260C	10-24-16	10-24-16	
o-Xylene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Styrene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Bromoform	ND	2.6	EPA 8260C	10-24-16	10-24-16	
Isopropylbenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Bromobenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,1,2,2-Tetrachloroethane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,2,3-Trichloropropane	ND	0.40	EPA 8260C	10-24-16	10-24-16	
n-Propylbenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
2-Chlorotoluene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
4-Chlorotoluene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,3,5-Trimethylbenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
tert-Butylbenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,2,4-Trimethylbenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
sec-Butylbenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,3-Dichlorobenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
p-Isopropyltoluene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,4-Dichlorobenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,2-Dichlorobenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
n-Butylbenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
1,2-Dibromo-3-chloropropane	ND	2.0	EPA 8260C	10-24-16	10-24-16	
1,2,4-Trichlorobenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Hexachlorobutadiene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Naphthalene	ND	2.6	EPA 8260C	10-24-16	10-24-16	
1,2,3-Trichlorobenzene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*92*	*77-129*				
Toluene-d8	*104*	*80-127*				
4-Bromofluorobenzene	*99*	*80-125*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1024W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chloromethane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromomethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chloroethane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Acetone	ND	5.0	EPA 8260C	10-24-16	10-24-16	
Iodomethane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
Carbon Disulfide	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-24-16	10-24-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-24-16	10-24-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Butanone	ND	5.0	EPA 8260C	10-24-16	10-24-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chloroform	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Benzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Trichloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Dibromomethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Chloroethyl Vinyl Ether	ND	5.5	EPA 8260C	10-24-16	10-24-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-24-16	10-24-16	
Toluene	ND	1.0	EPA 8260C	10-24-16	10-24-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-24-16	10-24-16	

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1024W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Tetrachloroethene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Hexanone	ND	2.0	EPA 8260C	10-24-16	10-24-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-24-16	10-24-16	
o-Xylene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Styrene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromoform	ND	1.3	EPA 8260C	10-24-16	10-24-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Bromobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-24-16	10-24-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	10-24-16	10-24-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Naphthalene	ND	1.3	EPA 8260C	10-24-16	10-24-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	10-24-16	10-24-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*88*	*77-129*				
Toluene-d8	*104*	*80-127*				
4-Bromofluorobenzene	*94*	*80-125*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1024W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.1**	**9.29**	10.0	10.0	101	93	63-127	8	17	
Benzene	**9.75**	**10.1**	10.0	10.0	98	101	76-121	4	12	
Trichloroethene	**8.70**	**8.51**	10.0	10.0	87	85	64-114	2	15	
Toluene	**9.13**	**9.03**	10.0	10.0	91	90	82-115	1	13	
Chlorobenzene	**9.02**	**8.82**	10.0	10.0	90	88	80-115	2	14	
Surrogate:										
Dibromofluoromethane					*82*	*87*	*77-129*			
Toluene-d8					*101*	*103*	*80-127*			
4-Bromofluorobenzene					*94*	*94*	*80-125*			

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-1-5.7**					
Laboratory ID:	10-247-05					
Naphthalene	**2.0**	0.076	EPA 8270D/SIM	10-26-16	10-28-16	
2-Methylnaphthalene	**9.1**	0.076	EPA 8270D/SIM	10-26-16	10-28-16	
1-Methylnaphthalene	**9.5**	0.076	EPA 8270D/SIM	10-26-16	10-28-16	
Acenaphthylene	**0.37**	0.076	EPA 8270D/SIM	10-26-16	10-28-16	
Acenaphthene	**0.50**	0.076	EPA 8270D/SIM	10-26-16	10-28-16	
Fluorene	**3.2**	0.076	EPA 8270D/SIM	10-26-16	10-28-16	
Phenanthrene	**5.4**	0.076	EPA 8270D/SIM	10-26-16	10-28-16	
Anthracene	**0.44**	0.076	EPA 8270D/SIM	10-26-16	10-28-16	
Fluoranthene	**0.11**	0.076	EPA 8270D/SIM	10-26-16	10-28-16	
Pyrene	**0.53**	0.076	EPA 8270D/SIM	10-26-16	10-28-16	
Benzo[a]anthracene	**0.0080**	0.0076	EPA 8270D/SIM	10-26-16	10-27-16	
Chrysene	**0.046**	0.0076	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo[b]fluoranthene	**ND**	0.0076	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo(j,k)fluoranthene	**ND**	0.0076	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo[a]pyrene	**ND**	0.0076	EPA 8270D/SIM	10-26-16	10-27-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0076	EPA 8270D/SIM	10-26-16	10-27-16	
Dibenz[a,h]anthracene	**ND**	0.0076	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo[g,h,i]perylene	**ND**	0.0076	EPA 8270D/SIM	10-26-16	10-27-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*77*	*32 - 122*				
Pyrene-d10	*87*	*33 - 125*				
Terphenyl-d14	*69*	*36 - 118*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1026S1					
Naphthalene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Acenaphthylene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Acenaphthene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Fluorene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Phenanthrene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Anthracene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Fluoranthene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Pyrene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	10-26-16	10-27-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*68*	*32 - 122*				
Pyrene-d10	*87*	*33 - 125*				
Terphenyl-d14	*86*	*36 - 118*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

PAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	10-198-01										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.0592**	**0.0538**	0.0833	0.0833	ND	71	65	39 - 112	10	27	
Acenaphthylene	**0.0563**	**0.0509**	0.0833	0.0833	ND	68	61	40 - 121	10	34	
Acenaphthene	**0.0578**	**0.0536**	0.0833	0.0833	ND	69	64	44 - 113	8	28	
Fluorene	**0.0644**	**0.0576**	0.0833	0.0833	ND	77	69	43 - 119	11	27	
Phenanthrene	**0.0585**	**0.0547**	0.0833	0.0833	ND	70	66	35 - 124	7	30	
Anthracene	**0.0898**	**0.0835**	0.0833	0.0833	ND	108	100	30 - 140	7	26	
Fluoranthene	**0.0644**	**0.0613**	0.0833	0.0833	ND	77	74	29 - 136	5	32	
Pyrene	**0.0620**	**0.0597**	0.0833	0.0833	ND	74	72	35 - 128	4	33	
Benzo[a]anthracene	**0.0648**	**0.0609**	0.0833	0.0833	ND	78	73	30 - 143	6	31	
Chrysene	**0.0671**	**0.0641**	0.0833	0.0833	ND	81	77	32 - 129	5	33	
Benzo[b]fluoranthene	**0.0614**	**0.0581**	0.0833	0.0833	ND	74	70	23 - 140	6	29	
Benzo(j,k)fluoranthene	**0.0671**	**0.0633**	0.0833	0.0833	ND	81	76	32 - 119	6	30	
Benzo[a]pyrene	**0.0657**	**0.0619**	0.0833	0.0833	ND	79	74	31 - 131	6	32	
Indeno(1,2,3-c,d)pyrene	**0.0589**	**0.0537**	0.0833	0.0833	ND	71	64	31 - 130	9	28	
Dibenz[a,h]anthracene	**0.0603**	**0.0591**	0.0833	0.0833	ND	72	71	40 - 119	2	27	
Benzo[g,h,i]perylene	**0.0603**	**0.0567**	0.0833	0.0833	ND	72	68	39 - 119	6	29	
Surrogate:											
2-Fluorobiphenyl						*60*	*54*	*32 - 122*			
Pyrene-d10						*73*	*70*	*33 - 125*			
Terphenyl-d14						*72*	*68*	*36 - 118*			

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-1-GW**					
Laboratory ID:	10-247-07					
Naphthalene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
2-Methylnaphthalene	**1.6**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
1-Methylnaphthalene	**1.9**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Acenaphthylene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Acenaphthene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Fluorene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Phenanthrene	**0.23**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Anthracene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Fluoranthene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Pyrene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo[a]anthracene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Chrysene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo[b]fluoranthene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo(j,k)fluoranthene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo[a]pyrene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Dibenz[a,h]anthracene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo[g,h,i]perylene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*59*	*30 - 124*				
Pyrene-d10	*70*	*40 - 143*				
Terphenyl-d14	*75*	*27 - 127*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1025W1					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Fluorene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Anthracene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Pyrene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Chrysene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*51*	*30 - 124*				
Pyrene-d10	*80*	*40 - 143*				
Terphenyl-d14	*81*	*27 - 127*				

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

PAHs EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1025W1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**1.90**	**1.74**	2.50	2.50	76	70	29 - 101	9	47	
Acenaphthylene	**1.89**	**1.81**	2.50	2.50	76	72	20 - 117	4	50	
Acenaphthene	**2.00**	**1.93**	2.50	2.50	80	77	37 - 109	4	43	
Fluorene	**2.13**	**2.02**	2.50	2.50	85	81	47 - 108	5	34	
Phenanthrene	**2.06**	**2.05**	2.50	2.50	82	82	49 - 109	0	28	
Anthracene	**2.81**	**2.89**	2.50	2.50	112	116	34 - 140	3	32	
Fluoranthene	**2.16**	**2.22**	2.50	2.50	86	89	45 - 120	3	39	
Pyrene	**2.21**	**2.27**	2.50	2.50	88	91	42 - 133	3	39	
Benzo[a]anthracene	**2.31**	**2.39**	2.50	2.50	92	96	71 - 117	3	28	
Chrysene	**2.15**	**2.21**	2.50	2.50	86	88	53 - 110	3	25	
Benzo[b]fluoranthene	**2.20**	**2.32**	2.50	2.50	88	93	53 - 123	5	37	
Benzo(j,k)fluoranthene	**2.26**	**2.30**	2.50	2.50	90	92	52 - 119	2	41	
Benzo[a]pyrene	**2.24**	**2.34**	2.50	2.50	90	94	37 - 129	4	33	
Indeno(1,2,3-c,d)pyrene	**2.29**	**2.39**	2.50	2.50	92	96	45 - 128	4	31	
Dibenz[a,h]anthracene	**2.36**	**2.45**	2.50	2.50	94	98	54 - 120	4	30	
Benzo[g,h,i]perylene	**2.28**	**2.38**	2.50	2.50	91	95	49 - 117	4	29	
Surrogate:										
2-Fluorobiphenyl					*63*	*62*	*30 - 124*			
Pyrene-d10					*84*	*85*	*40 - 143*			
Terphenyl-d14					*80*	*82*	*27 - 127*			

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

TOTAL SUSPENDED SOLIDS
SM 2540D

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-2-GW**					
Laboratory ID:	10-247-03					
Total Suspended Solids	**33**	4.0	SM 2540D	10-25-26	10-26-16	
Client ID:	**F-1-GW**					
Laboratory ID:	10-247-07					
Total Suspended Solids	**4.0**	4.0	SM 2540D	10-25-26	10-26-16	

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

TOTAL SUSPENDED SOLIDS
SM 2540D
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1025W1					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-25-26	10-26-16	

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	10-245-01								
	ORIG	DUP							
Total Suspended Solids	**ND**	**ND**	NA	NA	NA	NA	NA	20	
SPIKE BLANK									
Laboratory ID:	SB1025W1								
	SB		SB		SB				
Total Suspended Solids	**92.0**		100	NA	92	78-113	NA	NA	

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

TOTAL LEAD
EPA 6010C

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	10-247-05					
Client ID:	**F-1-5.7**					
Lead	**ND**	5.7	6010C	10-25-16	10-25-16	

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

TOTAL LEAD
EPA 6010C
METHOD BLANK QUALITY CONTROL

Date Extracted:	10-25-16
Date Analyzed:	10-25-16
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	MB1025SM2

Analyte	Method	Result	PQL
Lead	6010C	**ND**	5.0

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

TOTAL LEAD
EPA 6010C
DUPLICATE QUALITY CONTROL

Date Extracted: 10-25-16
Date Analyzed: 10-25-16

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 10-233-03

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Lead	**38.6**	**43.6**	12	5.0	

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

TOTAL LEAD
EPA 6010C
MS/MSD QUALITY CONTROL

Date Extracted: 10-25-16
Date Analyzed: 10-25-16

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 10-233-03

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Lead	250	**287**	100	**293**	102	2	

Date of Report: November 1, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-247
Project: 1071-014

% MOISTURE

Date Analyzed: 10-25-16

Client ID	Lab ID	% Moisture
F-2-7.0	10-247-01	10
F-1-5.7	10-247-05	12

OnSite Environmental Inc.

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.

Z -

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

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: Farallon
Project Number: 1071-014
Project Name: S Norfolk St. + E Marginal Way
Project Manager: Scott Allin
Sampled by: R. Ostrom / A. Burns

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days)
(TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 10-247

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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	TSS	Lead (200.8/7000 series)			% Moisture
1	F-2-7.0	10-20-16	9:35	Soil	5		X		X																		X
2	F-2-8.5		9:40	↓	↓																						
3	F-2-GW		10:00	Water	11		X	X	X														X				
4	F-1-2.5		14:00	Soil	5																						
5	F-1-5.7		14:05				X		X					X										X			X
6	F-1-8.0		14:10	↓	↓																						
7	F-1-GW	↓	14:15	Water	11			X	X	X				X									X				

AB

	Signature	Company	Date	Time
Relinquished	Ryan Ostrom	Farallon	10/20/16	1700
Received		OSE	10/21/16	1740
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

TSS Samples were field filtered.

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

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

October 31, 2016

Scott Allin
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 1071-014
Laboratory Reference No. 1610-248

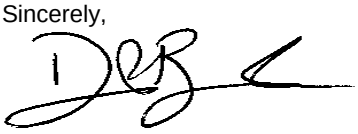
Dear Scott:

Enclosed are the analytical results and associated quality control data for samples submitted on October 21, 2016.

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, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-248
Project: 1071-014

Case Narrative

Samples were collected on October 20, 2016 and received by the laboratory on October 21, 2016. 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 of Report: October 31, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-248
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	10-248-01					
Client ID:	**F-2-GW**					
Arsenic	**9.6**	3.0	200.8		10-27-16	
Lab ID:	10-248-02					
Client ID:	**F-1-GW**					
Arsenic	**11**	3.0	200.8		10-27-16	

Date of Report: October 31, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-248
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8
METHOD BLANK QUALITY CONTROL

Date Analyzed:	10-27-16
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	MB1025F1

Analyte	Method	Result	PQL
Arsenic	200.8	**ND**	3.0

Date of Report: October 31, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-248
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8
DUPLICATE QUALITY CONTROL

Date Analyzed: 10-27-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-269-06

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**ND**	**ND**	NA	3.0	

Date of Report: October 31, 2016
Samples Submitted: October 21, 2016
Laboratory Reference: 1610-248
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8
MS/MSD QUALITY CONTROL

Date Analyzed: 10-27-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-269-06

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	200	**219**	109	**205**	102	7	

OnSite Environmental Inc.

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.

Z -

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

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: Farallon
Project Number: 1071-014
Project Name: S Norfolk St. + E Marginal Way
Project Manager: Scott Allin
Sampled by: R. Ostrom / A. Burns

Turnaround Request (in working days)

(Check One)

- ☐ Same Day ☐ 1 Day
- ☐ 2 Days ☐ 3 Days
- ☒ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 10-248

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	F-2-GW	10-20-16	10:00	Water	1
2	F-1-GW	↓	14:15	↓	↓

AB

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	Dissolved Arsenic (6000/7000 Series)				% Moisture
																	X				
																	X				

	Signature	Company	Date	Time
Relinquished	Ryan Ostrom	Farallon	10/20/16	1700
Received		ORE	10/21/16	1740
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

- Samples were field filtered

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

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

October 31, 2016

Scott Allin
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 1071-014
Laboratory Reference No. 1610-263

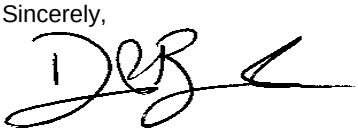
Dear Scott:

Enclosed are the analytical results and associated quality control data for samples submitted on October 24, 2016.

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, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-263
Project: 1071-014

Case Narrative

Samples were collected on October 24, 2016 and received by the laboratory on October 24, 2016. 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 of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-263
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	10-263-01					
Client ID:	**DOF-4-102416**					
Arsenic	**ND**	3.0	200.8		10-27-16	
Lab ID:	10-263-02					
Client ID:	**DOF-2-102416**					
Arsenic	**6.1**	3.0	200.8		10-27-16	

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-263
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8
METHOD BLANK QUALITY CONTROL

Date Analyzed:	10-27-16
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	MB1025F1

Analyte	Method	Result	PQL
Arsenic	200.8	**ND**	3.0

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-263
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8
DUPLICATE QUALITY CONTROL

Date Analyzed: 10-27-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-269-06

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**ND**	**ND**	NA	3.0	

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-263
Project: 1071-014

DISSOLVED ARSENIC
EPA 200.8
MS/MSD QUALITY CONTROL

Date Analyzed: 10-27-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-269-06

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	200	**219**	109	**205**	102	7	

OnSite Environmental Inc.

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.

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M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

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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 _____.

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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.

Z -

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

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: Farallon
Project Number: 1071-014
Project Name: South Norfolk Street & East Marginal Way
Project Manager: Scott Allen
Sampled by: Ryan Ostrom

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Days
- ☐ 3 Days
- ☒ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 10-263

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	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	D-Dissolved Arsenic Good/Poor series					% Moisture
1	DOF-4-102416	10/24/16	1146	W	1																	X					
2	DOF-2-102416	↓	1259	↓	1																	X					

RO

	Signature	Company	Date	Time
Relinquished	Ryan Ostrom	Farallon	10/24/16	1600
Received			10/24/16	1600
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Samples were field filtered

Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

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

October 31, 2016

Scott Allin
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 1071-014
Laboratory Reference No. 1610-264

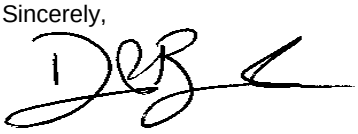
Dear Scott:

Enclosed are the analytical results and associated quality control data for samples submitted on October 24, 2016.

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, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-264
Project: 1071-014

Case Narrative

Samples were collected on October 24, 2016 and received by the laboratory on October 24, 2016. 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.

PAHs EPA 8270D/SIM Analysis

Sample DOF-2-102416 required dilution due to interference caused by the sample matrix, resulting in raised PQLs.

Total Suspended Solids SM 2540D Analysis

Samples received were field filtered.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-264
Project: 1071-014

NWTPH-Gx

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DOF-4-102416**					
Laboratory ID:	10-264-01					
Gasoline	**ND**	100	NWTPH-Gx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*85*	*61-118*				
Client ID:	**DOF-2-102416**					
Laboratory ID:	10-264-02					
Gasoline	**180**	100	NWTPH-Gx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*92*	*61-118*				

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-264
Project: 1071-014

NWTPH-Gx
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1025W1					
Gasoline	**ND**	100	NWTPH-Gx	10-25-16	10-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*83*	*61-118*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-264-01										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*85*	*89*	*61-118*			

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-264
Project: 1071-014

NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DOF-4-102416**					
Laboratory ID:	10-264-01					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	10-26-16	10-26-16	
Lube Oil Range Organics	**0.45**	0.41	NWTPH-Dx	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*104*	*50-150*				
Client ID:	**DOF-2-102416**					
Laboratory ID:	10-264-02					
Diesel Range Organics	**0.38**	0.26	NWTPH-Dx	10-26-16	10-26-16	
Lube Oil Range Organics	**0.56**	0.41	NWTPH-Dx	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*99*	*50-150*				

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-264
Project: 1071-014

NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1026W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	10-26-16	10-26-16	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	10-26-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*99*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-264-01										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range Organics	**0.446**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*104*	*102*	*50-150*			

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-264
Project: 1071-014

VOLATILES EPA 8260C
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DOF-4-102416**					
Laboratory ID:	10-264-01					
Dichlorodifluoromethane	ND	0.27	EPA 8260C	10-27-16	10-27-16	
Chloromethane	ND	1.0	EPA 8260C	10-27-16	10-27-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Bromomethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Chloroethane	ND	1.0	EPA 8260C	10-27-16	10-27-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Acetone	ND	7.4	EPA 8260C	10-27-16	10-27-16	
Iodomethane	ND	1.0	EPA 8260C	10-27-16	10-27-16	
Carbon Disulfide	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-27-16	10-27-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-27-16	10-27-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
2-Butanone	ND	6.5	EPA 8260C	10-27-16	10-27-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Chloroform	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Benzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Trichloroethene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Dibromomethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	10-27-16	10-27-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-27-16	10-27-16	
Toluene	ND	1.0	EPA 8260C	10-27-16	10-27-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-27-16	10-27-16	

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-264
Project: 1071-014

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DOF-4-102416**					
Laboratory ID:	10-264-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Tetrachloroethene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
2-Hexanone	ND	2.0	EPA 8260C	10-27-16	10-27-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-27-16	10-27-16	
o-Xylene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Styrene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Bromoform	ND	1.0	EPA 8260C	10-27-16	10-27-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Bromobenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	10-27-16	10-27-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Naphthalene	ND	1.0	EPA 8260C	10-27-16	10-27-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*100*	*77-129*				
Toluene-d8	*99*	*80-127*				
4-Bromofluorobenzene	*97*	*80-125*				

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-264
Project: 1071-014

VOLATILES EPA 8260C
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DOF-2-102416**					
Laboratory ID:	10-264-02					
Dichlorodifluoromethane	ND	0.27	EPA 8260C	10-27-16	10-27-16	
Chloromethane	ND	1.0	EPA 8260C	10-27-16	10-27-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Bromomethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Chloroethane	ND	1.0	EPA 8260C	10-27-16	10-27-16	
Trichlorofluoromethane	0.33	0.20	EPA 8260C	10-27-16	10-27-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Acetone	ND	7.4	EPA 8260C	10-27-16	10-27-16	
Iodomethane	ND	1.0	EPA 8260C	10-27-16	10-27-16	
Carbon Disulfide	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-27-16	10-27-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-27-16	10-27-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
2-Butanone	ND	6.5	EPA 8260C	10-27-16	10-27-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Chloroform	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Benzene	0.27	0.20	EPA 8260C	10-27-16	10-27-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Trichloroethene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Dibromomethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	10-27-16	10-27-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-27-16	10-27-16	
Toluene	ND	1.0	EPA 8260C	10-27-16	10-27-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-27-16	10-27-16	

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-264
Project: 1071-014

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DOF-2-102416**					
Laboratory ID:	10-264-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Tetrachloroethene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
2-Hexanone	ND	2.0	EPA 8260C	10-27-16	10-27-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Ethylbenzene	0.31	0.20	EPA 8260C	10-27-16	10-27-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-27-16	10-27-16	
o-Xylene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Styrene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Bromoform	ND	1.0	EPA 8260C	10-27-16	10-27-16	
Isopropylbenzene	6.1	0.20	EPA 8260C	10-27-16	10-27-16	
Bromobenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
n-Propylbenzene	1.5	0.20	EPA 8260C	10-27-16	10-27-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
tert-Butylbenzene	0.67	0.20	EPA 8260C	10-27-16	10-27-16	
1,2,4-Trimethylbenzene	0.33	0.20	EPA 8260C	10-27-16	10-27-16	
sec-Butylbenzene	1.7	0.20	EPA 8260C	10-27-16	10-27-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
n-Butylbenzene	1.2	0.20	EPA 8260C	10-27-16	10-27-16	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	10-27-16	10-27-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Naphthalene	ND	1.0	EPA 8260C	10-27-16	10-27-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*77-129*				
Toluene-d8	*103*	*80-127*				
4-Bromofluorobenzene	*101*	*80-125*				

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-264
Project: 1071-014

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1027W1					
Dichlorodifluoromethane	ND	0.27	EPA 8260C	10-27-16	10-27-16	
Chloromethane	ND	1.0	EPA 8260C	10-27-16	10-27-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Bromomethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Chloroethane	ND	1.0	EPA 8260C	10-27-16	10-27-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Acetone	ND	7.4	EPA 8260C	10-27-16	10-27-16	
Iodomethane	ND	1.0	EPA 8260C	10-27-16	10-27-16	
Carbon Disulfide	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-27-16	10-27-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-27-16	10-27-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
2-Butanone	ND	6.5	EPA 8260C	10-27-16	10-27-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Chloroform	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Benzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Trichloroethene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Dibromomethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	10-27-16	10-27-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-27-16	10-27-16	
Toluene	ND	1.0	EPA 8260C	10-27-16	10-27-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-27-16	10-27-16	

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-264
Project: 1071-014

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1027W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Tetrachloroethene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
2-Hexanone	ND	2.0	EPA 8260C	10-27-16	10-27-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-27-16	10-27-16	
o-Xylene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Styrene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Bromoform	ND	1.0	EPA 8260C	10-27-16	10-27-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Bromobenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-27-16	10-27-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	10-27-16	10-27-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Naphthalene	ND	1.0	EPA 8260C	10-27-16	10-27-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	10-27-16	10-27-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*77-129*				
Toluene-d8	*99*	*80-127*				
4-Bromofluorobenzene	*97*	*80-125*				

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-264
Project: 1071-014

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1027W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.9**	**10.6**	10.0	10.0	109	106	63-127	3	17	
Benzene	**10.7**	**10.5**	10.0	10.0	107	105	76-121	2	12	
Trichloroethene	**9.57**	**9.21**	10.0	10.0	96	92	64-114	4	15	
Toluene	**10.9**	**10.5**	10.0	10.0	109	105	82-115	4	13	
Chlorobenzene	**10.8**	**10.4**	10.0	10.0	108	104	80-115	4	14	
Surrogate:										
Dibromofluoromethane					*98*	*99*	*77-129*			
Toluene-d8					*101*	*99*	*80-127*			
4-Bromofluorobenzene					*98*	*98*	*80-125*			

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-264
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DOF-4-102416**					
Laboratory ID:	10-264-01					
Naphthalene	**ND**	0.095	EPA 8270D/SIM	10-25-16	10-27-16	
2-Methylnaphthalene	**ND**	0.095	EPA 8270D/SIM	10-25-16	10-27-16	
1-Methylnaphthalene	**ND**	0.095	EPA 8270D/SIM	10-25-16	10-27-16	
Acenaphthylene	**ND**	0.095	EPA 8270D/SIM	10-25-16	10-27-16	
Acenaphthene	**ND**	0.095	EPA 8270D/SIM	10-25-16	10-27-16	
Fluorene	**ND**	0.095	EPA 8270D/SIM	10-25-16	10-27-16	
Phenanthrene	**ND**	0.095	EPA 8270D/SIM	10-25-16	10-27-16	
Anthracene	**ND**	0.095	EPA 8270D/SIM	10-25-16	10-27-16	
Fluoranthene	**ND**	0.095	EPA 8270D/SIM	10-25-16	10-27-16	
Pyrene	**ND**	0.095	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo[a]anthracene	**ND**	0.0095	EPA 8270D/SIM	10-25-16	10-27-16	
Chrysene	**ND**	0.0095	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo[b]fluoranthene	**ND**	0.0095	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo(j,k)fluoranthene	**ND**	0.0095	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo[a]pyrene	**ND**	0.0095	EPA 8270D/SIM	10-25-16	10-27-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0095	EPA 8270D/SIM	10-25-16	10-27-16	
Dibenz[a,h]anthracene	**ND**	0.0095	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo[g,h,i]perylene	**ND**	0.0095	EPA 8270D/SIM	10-25-16	10-27-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*70*	*30 - 124*				
Pyrene-d10	*77*	*40 - 143*				
Terphenyl-d14	*97*	*27 - 127*				

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-264
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DOF-2-102416**					
Laboratory ID:	10-264-02					
Naphthalene	**0.64**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
2-Methylnaphthalene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
1-Methylnaphthalene	**1.8**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Acenaphthylene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Acenaphthene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Fluorene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Phenanthrene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Anthracene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Fluoranthene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Pyrene	**ND**	0.19	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo[a]anthracene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Chrysene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo[b]fluoranthene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo(j,k)fluoranthene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo[a]pyrene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Dibenz[a,h]anthracene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Benzo[g,h,i]perylene	**ND**	0.019	EPA 8270D/SIM	10-25-16	10-27-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*63*	*30 - 124*				
Pyrene-d10	*75*	*40 - 143*				
Terphenyl-d14	*88*	*27 - 127*				

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-264
Project: 1071-014

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1025W1					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Fluorene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Anthracene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Pyrene	**ND**	0.10	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Chrysene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	10-25-16	10-26-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*51*	*30 - 124*				
Pyrene-d10	*80*	*40 - 143*				
Terphenyl-d14	*81*	*27 - 127*				

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-264
Project: 1071-014

PAHs EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1025W1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**1.90**	**1.74**	2.50	2.50	76	70	29 - 101	9	47	
Acenaphthylene	**1.89**	**1.81**	2.50	2.50	76	72	20 - 117	4	50	
Acenaphthene	**2.00**	**1.93**	2.50	2.50	80	77	37 - 109	4	43	
Fluorene	**2.13**	**2.02**	2.50	2.50	85	81	47 - 108	5	34	
Phenanthrene	**2.06**	**2.05**	2.50	2.50	82	82	49 - 109	0	28	
Anthracene	**2.81**	**2.89**	2.50	2.50	112	116	34 - 140	3	32	
Fluoranthene	**2.16**	**2.22**	2.50	2.50	86	89	45 - 120	3	39	
Pyrene	**2.21**	**2.27**	2.50	2.50	88	91	42 - 133	3	39	
Benzo[a]anthracene	**2.31**	**2.39**	2.50	2.50	92	96	71 - 117	3	28	
Chrysene	**2.15**	**2.21**	2.50	2.50	86	88	53 - 110	3	25	
Benzo[b]fluoranthene	**2.20**	**2.32**	2.50	2.50	88	93	53 - 123	5	37	
Benzo(j,k)fluoranthene	**2.26**	**2.30**	2.50	2.50	90	92	52 - 119	2	41	
Benzo[a]pyrene	**2.24**	**2.34**	2.50	2.50	90	94	37 - 129	4	33	
Indeno(1,2,3-c,d)pyrene	**2.29**	**2.39**	2.50	2.50	92	96	45 - 128	4	31	
Dibenz[a,h]anthracene	**2.36**	**2.45**	2.50	2.50	94	98	54 - 120	4	30	
Benzo[g,h,i]perylene	**2.28**	**2.38**	2.50	2.50	91	95	49 - 117	4	29	
Surrogate:										
2-Fluorobiphenyl					*63*	*62*	*30 - 124*			
Pyrene-d10					*84*	*85*	*40 - 143*			
Terphenyl-d14					*80*	*82*	*27 - 127*			

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-264
Project: 1071-014

TOTAL SUSPENDED SOLIDS
SM 2540D

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DOF-4-102416**					
Laboratory ID:	10-264-01					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-25-26	10-26-16	
Client ID:	**DOF-2-102416**					
Laboratory ID:	10-264-02					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-25-26	10-26-16	

Date of Report: October 31, 2016
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Laboratory Reference: 1610-264
Project: 1071-014

TOTAL SUSPENDED SOLIDS
SM 2540D
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1025W1					
Total Suspended Solids	**ND**	4.0	SM 2540D	10-25-26	10-26-16	

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	10-245-01								
	ORIG	DUP							
Total Suspended Solids	**ND**	**ND**	NA	NA	NA	NA	NA	20	
SPIKE BLANK									
Laboratory ID:	SB1025W1								
	SB		SB		SB				
Total Suspended Solids	**92.0**		100	NA	92	78-113	NA	NA	

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-264
Project: 1071-014

DISSOLVED LEAD
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	10-264-01					
Client ID:	**DOF-4-102416**					
Lead	**ND**	1.0	200.8		10-27-16	
Lab ID:	10-264-02					
Client ID:	**DOF-2-102416**					
Lead	**ND**	1.0	200.8		10-27-16	

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-264
Project: 1071-014

DISSOLVED LEAD
EPA 200.8
METHOD BLANK QUALITY CONTROL

Date Analyzed:	10-27-16
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	MB1025F1

Analyte	Method	Result	PQL
Lead	200.8	**ND**	1.0

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-264
Project: 1071-014

DISSOLVED LEAD
EPA 200.8
DUPLICATE QUALITY CONTROL

Date Analyzed: 10-27-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-269-06

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Lead	**ND**	**ND**	NA	1.0	

Date of Report: October 31, 2016
Samples Submitted: October 24, 2016
Laboratory Reference: 1610-264
Project: 1071-014

DISSOLVED LEAD
EPA 200.8
MS/MSD QUALITY CONTROL

Date Analyzed: 10-27-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-269-06

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Lead	200	**190**	95	**186**	93	2	

OnSite Environmental Inc.

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.

Z -

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

Chain of Custody

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OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: Farallon
Project Number: 1071-014
Project Name: South Norfolk Street & East Marginal Way
Project Manager: Scott Allin
Sampled by: Ryan Ostrom

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Days
- ☐ 3 Days
- ☒ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 10-264

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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	TSS	Dissolved Lead (6000/7000 Series)			% Moisture
1	DOF-4-102416	10/24/16	1146	W	12			X	X	X				X									X	X			
2	DOF-2-102416	↓	1259	↓	↓			X	X	X				X									X	X			
	RO																										

	Signature	Company	Date	Time
Relinquished	Ryan Ostrom	Farallon	10/24/16	1600
Received		COC	10/24/16	1600
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

TSS & Lead Samples were field Filtered

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

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

November 4, 2016

Scott Allin
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 1071-014
Laboratory Reference No. 1610-315

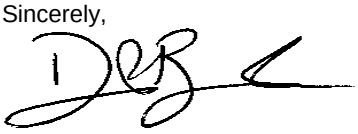
Dear Scott:

Enclosed are the analytical results and associated quality control data for samples submitted on October 27, 2016.

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: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

Case Narrative

Samples were collected on October 26, 2016 and received by the laboratory on October 27, 2016. 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.

NWTPH Gx/BTEX (soil) Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

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 of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-5-6.0**					
Laboratory ID:	10-315-01					
Benzene	**ND**	0.020	EPA 8021B	10-31-16	10-31-16	
Toluene	**ND**	0.073	EPA 8021B	10-31-16	10-31-16	
Ethyl Benzene	**ND**	0.073	EPA 8021B	10-31-16	10-31-16	
m,p-Xylene	**ND**	0.073	EPA 8021B	10-31-16	10-31-16	
o-Xylene	**ND**	0.073	EPA 8021B	10-31-16	10-31-16	
Gasoline	**ND**	7.3	NWTPH-Gx	10-31-16	10-31-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*93*	*63-124*				
Client ID:	**F-7-7.0**					
Laboratory ID:	10-315-03					
Benzene	**ND**	0.020	EPA 8021B	10-31-16	10-31-16	
Toluene	**ND**	0.091	EPA 8021B	10-31-16	10-31-16	
Ethyl Benzene	**ND**	0.091	EPA 8021B	10-31-16	10-31-16	
m,p-Xylene	**ND**	0.091	EPA 8021B	10-31-16	10-31-16	
o-Xylene	**ND**	0.091	EPA 8021B	10-31-16	10-31-16	
Gasoline	**ND**	9.1	NWTPH-Gx	10-31-16	10-31-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*63-124*				
Client ID:	**F-9-8.0**					
Laboratory ID:	10-315-07					
Benzene	**ND**	0.020	EPA 8021B	10-31-16	10-31-16	
Toluene	**ND**	0.081	EPA 8021B	10-31-16	10-31-16	
Ethyl Benzene	**ND**	0.081	EPA 8021B	10-31-16	10-31-16	
m,p-Xylene	**ND**	0.081	EPA 8021B	10-31-16	10-31-16	
o-Xylene	**ND**	0.081	EPA 8021B	10-31-16	10-31-16	
Gasoline	**ND**	8.1	NWTPH-Gx	10-31-16	10-31-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*100*	*63-124*				

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1031S1					
Benzene	**ND**	0.020	EPA 8021B	10-31-16	10-31-16	
Toluene	**ND**	0.050	EPA 8021B	10-31-16	10-31-16	
Ethyl Benzene	**ND**	0.050	EPA 8021B	10-31-16	10-31-16	
m,p-Xylene	**ND**	0.050	EPA 8021B	10-31-16	10-31-16	
o-Xylene	**ND**	0.050	EPA 8021B	10-31-16	10-31-16	
Gasoline	**ND**	5.0	NWTPH-Gx	10-31-16	10-31-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*91*	*63-124*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-315-07										
	ORIG	DUP									
Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Toluene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Ethyl Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
m,p-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
o-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*100*	*100*	*63-124*			
SPIKE BLANKS											
Laboratory ID:	SB1031S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.921**	**0.939**	1.00	1.00		**92**	**94**	70-124	2	12	
Toluene	**0.919**	**0.945**	1.00	1.00		**92**	**95**	73-119	3	12	
Ethyl Benzene	**0.936**	**0.959**	1.00	1.00		**94**	**96**	74-117	2	12	
m,p-Xylene	**0.887**	**0.916**	1.00	1.00		**89**	**92**	75-117	3	13	
o-Xylene	**0.935**	**0.940**	1.00	1.00		**94**	**94**	75-116	1	12	
Surrogate:											
Fluorobenzene						*92*	*92*	*63-124*			

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

NWTPH-Gx/BTEX

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-5-GW**					
Laboratory ID:	10-315-02					
Benzene	**ND**	1.0	EPA 8021B	10-28-16	10-28-16	
Toluene	**ND**	1.0	EPA 8021B	10-28-16	10-28-16	
Ethyl Benzene	**ND**	1.0	EPA 8021B	10-28-16	10-28-16	
m,p-Xylene	**ND**	1.0	EPA 8021B	10-28-16	10-28-16	
o-Xylene	**ND**	1.0	EPA 8021B	10-28-16	10-28-16	
Gasoline	**ND**	100	NWTPH-Gx	10-28-16	10-28-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*86*	*61-118*				
Client ID:	**F-7-GW**					
Laboratory ID:	10-315-04					
Benzene	**ND**	1.0	EPA 8021B	10-28-16	10-28-16	
Toluene	**ND**	1.0	EPA 8021B	10-28-16	10-28-16	
Ethyl Benzene	**ND**	1.0	EPA 8021B	10-28-16	10-28-16	
m,p-Xylene	**ND**	1.0	EPA 8021B	10-28-16	10-28-16	
o-Xylene	**ND**	1.0	EPA 8021B	10-28-16	10-28-16	
Gasoline	**ND**	100	NWTPH-Gx	10-28-16	10-28-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*86*	*61-118*				
Client ID:	**F-8-GW**					
Laboratory ID:	10-315-06					
Gasoline	**ND**	100	NWTPH-Gx	10-28-16	10-28-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*67*	*61-118*				
Client ID:	**F-9-GW**					
Laboratory ID:	10-315-08					
Benzene	**ND**	1.0	EPA 8021B	11-1-16	11-1-16	
Toluene	**ND**	1.0	EPA 8021B	11-1-16	11-1-16	
Ethyl Benzene	**ND**	1.0	EPA 8021B	11-1-16	11-1-16	
m,p-Xylene	**1.0**	1.0	EPA 8021B	11-1-16	11-1-16	
o-Xylene	**ND**	1.0	EPA 8021B	11-1-16	11-1-16	
Gasoline	**ND**	100	NWTPH-Gx	10-28-16	10-28-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*84*	*61-118*				

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

NWTPH-Gx/BTEX

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-10-GW**					
Laboratory ID:	10-315-09					
Benzene	**ND**	1.0	EPA 8021B	10-28-16	10-28-16	
Toluene	**ND**	1.0	EPA 8021B	10-28-16	10-28-16	
Ethyl Benzene	**ND**	1.0	EPA 8021B	10-28-16	10-28-16	
m,p-Xylene	**ND**	1.0	EPA 8021B	10-28-16	10-28-16	
o-Xylene	**ND**	1.0	EPA 8021B	10-28-16	10-28-16	
Gasoline	**ND**	100	NWTPH-Gx	10-28-16	10-28-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*61-118*				

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1028W1					
Benzene	**ND**	1.0	EPA 8021B	10-28-16	10-28-16	
Toluene	**ND**	1.0	EPA 8021B	10-28-16	10-28-16	
Ethyl Benzene	**ND**	1.0	EPA 8021B	10-28-16	10-28-16	
m,p-Xylene	**ND**	1.0	EPA 8021B	10-28-16	10-28-16	
o-Xylene	**ND**	1.0	EPA 8021B	10-28-16	10-28-16	
Gasoline	**ND**	100	NWTPH-Gx	10-28-16	10-28-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*67*	*61-118*				
Laboratory ID:	MB1101W2					
Benzene	**ND**	1.0	EPA 8021B	11-1-16	11-1-16	
Toluene	**ND**	1.0	EPA 8021B	11-1-16	11-1-16	
Ethyl Benzene	**ND**	1.0	EPA 8021B	11-1-16	11-1-16	
m,p-Xylene	**ND**	1.0	EPA 8021B	11-1-16	11-1-16	
o-Xylene	**ND**	1.0	EPA 8021B	11-1-16	11-1-16	
Gasoline	**ND**	100	NWTPH-Gx	11-1-16	11-1-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*84*	*61-118*				

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-315-06										
	ORIG	DUP									
Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Toluene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Ethyl Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
m,p-Xylene	**1.37**	**1.37**	NA	NA		NA		NA	0	30	
o-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*67*	*79*	*61-118*			
Laboratory ID:	10-339-01										
	ORIG	DUP									
Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Toluene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Ethyl Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
m,p-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
o-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*84*	*79*	*61-118*			
MATRIX SPIKES											
Laboratory ID:	10-315-06										
	MS	MSD	MS	MSD		MS	MSD				
Benzene	**43.4**	**43.9**	50.0	50.0	ND	**87**	**88**	80-120	1	13	
Toluene	**44.3**	**44.7**	50.0	50.0	ND	**89**	**89**	81-115	1	14	
Ethyl Benzene	**45.3**	**45.7**	50.0	50.0	ND	**91**	**91**	81-114	1	12	
m,p-Xylene	**44.1**	**44.1**	50.0	50.0	1.37	**85**	**85**	81-114	0	13	
o-Xylene	**44.9**	**45.1**	50.0	50.0	ND	**90**	**90**	81-113	0	11	
Surrogate:											
Fluorobenzene						*91*	*89*	*61-118*			
Laboratory ID:	10-339-01										
	MS	MSD	MS	MSD		MS	MSD				
Benzene	**43.4**	**43.9**	50.0	50.0	ND	**87**	**88**	80-120	1	13	
Toluene	**43.6**	**44.2**	50.0	50.0	ND	**87**	**88**	81-115	1	14	
Ethyl Benzene	**45.1**	**45.7**	50.0	50.0	ND	**90**	**91**	81-114	1	12	
m,p-Xylene	**42.2**	**42.8**	50.0	50.0	ND	**84**	**86**	81-114	1	13	
o-Xylene	**43.8**	**44.4**	50.0	50.0	ND	**88**	**89**	81-113	1	11	
Surrogate:											
Fluorobenzene						*92*	*95*	*61-118*			

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-5-6.0**					
Laboratory ID:	10-315-01					
Diesel Range Organics	**ND**	34	NWTPH-Dx	11-2-16	11-2-16	
Lube Oil Range Organics	**ND**	68	NWTPH-Dx	11-2-16	11-2-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*92*	*50-150*				
Client ID:	**F-7-7.0**					
Laboratory ID:	10-315-03					
Diesel Range Organics	**ND**	38	NWTPH-Dx	11-2-16	11-2-16	
Lube Oil Range Organics	**ND**	76	NWTPH-Dx	11-2-16	11-2-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*91*	*50-150*				
Client ID:	**F-9-8.0**					
Laboratory ID:	10-315-07					
Diesel Range Organics	**ND**	36	NWTPH-Dx	11-2-16	11-2-16	
Lube Oil Range Organics	**ND**	72	NWTPH-Dx	11-2-16	11-2-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*94*	*50-150*				

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1102S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	11-2-16	11-2-16	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	11-2-16	11-2-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*123*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-292-06										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*114*	*108*	*50-150*			

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-5-GW**					
Laboratory ID:	10-315-02					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	10-31-16	10-31-16	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	10-31-16	10-31-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*90*	*50-150*				
Client ID:	**F-7-GW**					
Laboratory ID:	10-315-04					
Diesel Range Organics	**0.64**	0.25	NWTPH-Dx	10-31-16	10-31-16	
Lube Oil Range Organics	**0.49**	0.40	NWTPH-Dx	10-31-16	10-31-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				
Client ID:	**F-8-GW**					
Laboratory ID:	10-315-06					
Diesel Range Organics	**1.2**	0.26	NWTPH-Dx	10-31-16	10-31-16	
Lube Oil Range Organics	**0.71**	0.42	NWTPH-Dx	10-31-16	10-31-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*82*	*50-150*				
Client ID:	**F-9-GW**					
Laboratory ID:	10-315-08					
Diesel Range Organics	**0.60**	0.25	NWTPH-Dx	10-31-16	10-31-16	
Lube Oil Range Organics	**0.44**	0.40	NWTPH-Dx	10-31-16	10-31-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*83*	*50-150*				
Client ID:	**F-10-GW**					
Laboratory ID:	10-315-09					
Diesel Range Organics	**0.81**	0.25	NWTPH-Dx	10-31-16	10-31-16	
Lube Oil Range Organics	**1.1**	0.40	NWTPH-Dx	10-31-16	10-31-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*78*	*50-150*				

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1031W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	10-31-16	10-31-16	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	10-31-16	10-31-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-274-01										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*84*	*87*	*50-150*			

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

VOLATILES EPA 8260C
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-8-GW**					
Laboratory ID:	10-315-06					
Dichlorodifluoromethane	ND	0.28	EPA 8260C	10-28-16	10-28-16	
Chloromethane	ND	1.4	EPA 8260C	10-28-16	10-28-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Bromomethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Chloroethane	ND	1.0	EPA 8260C	10-28-16	10-28-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Acetone	ND	8.0	EPA 8260C	10-28-16	10-28-16	
Iodomethane	ND	1.3	EPA 8260C	10-28-16	10-28-16	
Carbon Disulfide	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-28-16	10-28-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Methyl t-Butyl Ether	4.5	0.20	EPA 8260C	10-28-16	10-28-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-28-16	10-28-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
2-Butanone	ND	6.5	EPA 8260C	10-28-16	10-28-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Chloroform	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Benzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Trichloroethene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Dibromomethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260C	10-28-16	10-28-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-28-16	10-28-16	
Toluene	ND	1.0	EPA 8260C	10-28-16	10-28-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-28-16	10-28-16	

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-8-GW**					
Laboratory ID:	10-315-06					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Tetrachloroethene	ND	0.40	EPA 8260C	10-28-16	10-28-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
2-Hexanone	ND	2.6	EPA 8260C	10-28-16	10-28-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
m,p-Xylene	0.58	0.40	EPA 8260C	10-28-16	10-28-16	
o-Xylene	0.28	0.20	EPA 8260C	10-28-16	10-28-16	
Styrene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Bromoform	ND	1.0	EPA 8260C	10-28-16	10-28-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Bromobenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,2,4-Trimethylbenzene	0.24	0.20	EPA 8260C	10-28-16	10-28-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,2-Dibromo-3-chloropropane	ND	1.3	EPA 8260C	10-28-16	10-28-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Naphthalene	ND	1.0	EPA 8260C	10-28-16	10-28-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*77-129*				
Toluene-d8	*100*	*80-127*				
4-Bromofluorobenzene	*95*	*80-125*				

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1028W1					
Dichlorodifluoromethane	ND	0.28	EPA 8260C	10-28-16	10-28-16	
Chloromethane	ND	1.4	EPA 8260C	10-28-16	10-28-16	
Vinyl Chloride	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Bromomethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Chloroethane	ND	1.0	EPA 8260C	10-28-16	10-28-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Acetone	ND	8.0	EPA 8260C	10-28-16	10-28-16	
Iodomethane	ND	1.3	EPA 8260C	10-28-16	10-28-16	
Carbon Disulfide	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Methylene Chloride	ND	1.0	EPA 8260C	10-28-16	10-28-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Vinyl Acetate	ND	1.0	EPA 8260C	10-28-16	10-28-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
2-Butanone	ND	6.5	EPA 8260C	10-28-16	10-28-16	
Bromochloromethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Chloroform	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Benzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Trichloroethene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Dibromomethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Bromodichloromethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260C	10-28-16	10-28-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	10-28-16	10-28-16	
Toluene	ND	1.0	EPA 8260C	10-28-16	10-28-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	10-28-16	10-28-16	

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

VOLATILES by EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1028W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Tetrachloroethene	ND	0.40	EPA 8260C	10-28-16	10-28-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
2-Hexanone	ND	2.6	EPA 8260C	10-28-16	10-28-16	
Dibromochloromethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Chlorobenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Ethylbenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
m,p-Xylene	ND	0.40	EPA 8260C	10-28-16	10-28-16	
o-Xylene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Styrene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Bromoform	ND	1.0	EPA 8260C	10-28-16	10-28-16	
Isopropylbenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Bromobenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	10-28-16	10-28-16	
n-Propylbenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
n-Butylbenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
1,2-Dibromo-3-chloropropane	ND	1.3	EPA 8260C	10-28-16	10-28-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Naphthalene	ND	1.0	EPA 8260C	10-28-16	10-28-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	10-28-16	10-28-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*102*	*77-129*				
Toluene-d8	*100*	*80-127*				
4-Bromofluorobenzene	*96*	*80-125*				

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1028W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.4**	**10.7**	10.0	10.0	104	107	63-127	3	17	
Benzene	**10.4**	**10.6**	10.0	10.0	104	106	76-121	2	12	
Trichloroethene	**9.18**	**9.20**	10.0	10.0	92	92	64-114	0	15	
Toluene	**10.4**	**10.6**	10.0	10.0	104	106	82-115	2	13	
Chlorobenzene	**10.0**	**10.4**	10.0	10.0	100	104	80-115	4	14	
Surrogate:										
Dibromofluoromethane					*103*	*102*	*77-129*			
Toluene-d8					*102*	*100*	*80-127*			
4-Bromofluorobenzene					*97*	*98*	*80-125*			

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-9-8.0**					
Laboratory ID:	10-315-07					
Naphthalene	**ND**	0.0096	EPA 8270D/SIM	11-1-16	11-2-16	
2-Methylnaphthalene	**ND**	0.0096	EPA 8270D/SIM	11-1-16	11-2-16	
1-Methylnaphthalene	**ND**	0.0096	EPA 8270D/SIM	11-1-16	11-2-16	
Acenaphthylene	**ND**	0.0096	EPA 8270D/SIM	11-1-16	11-2-16	
Acenaphthene	**ND**	0.0096	EPA 8270D/SIM	11-1-16	11-2-16	
Fluorene	**ND**	0.0096	EPA 8270D/SIM	11-1-16	11-2-16	
Phenanthrene	**ND**	0.0096	EPA 8270D/SIM	11-1-16	11-2-16	
Anthracene	**ND**	0.0096	EPA 8270D/SIM	11-1-16	11-2-16	
Fluoranthene	**ND**	0.0096	EPA 8270D/SIM	11-1-16	11-2-16	
Pyrene	**ND**	0.0096	EPA 8270D/SIM	11-1-16	11-2-16	
Benzo[a]anthracene	**ND**	0.0096	EPA 8270D/SIM	11-1-16	11-2-16	
Chrysene	**ND**	0.0096	EPA 8270D/SIM	11-1-16	11-2-16	
Benzo[b]fluoranthene	**ND**	0.0096	EPA 8270D/SIM	11-1-16	11-2-16	
Benzo(j,k)fluoranthene	**ND**	0.0096	EPA 8270D/SIM	11-1-16	11-2-16	
Benzo[a]pyrene	**ND**	0.0096	EPA 8270D/SIM	11-1-16	11-2-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0096	EPA 8270D/SIM	11-1-16	11-2-16	
Dibenz[a,h]anthracene	**ND**	0.0096	EPA 8270D/SIM	11-1-16	11-2-16	
Benzo[g,h,i]perylene	**ND**	0.0096	EPA 8270D/SIM	11-1-16	11-2-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*63*	*32 - 122*				
Pyrene-d10	*73*	*33 - 125*				
Terphenyl-d14	*69*	*36 - 118*				

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1101S1					
Naphthalene	**ND**	0.0067	EPA 8270D/SIM	11-1-16	11-2-16	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	11-1-16	11-2-16	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	11-1-16	11-2-16	
Acenaphthylene	**ND**	0.0067	EPA 8270D/SIM	11-1-16	11-2-16	
Acenaphthene	**ND**	0.0067	EPA 8270D/SIM	11-1-16	11-2-16	
Fluorene	**ND**	0.0067	EPA 8270D/SIM	11-1-16	11-2-16	
Phenanthrene	**ND**	0.0067	EPA 8270D/SIM	11-1-16	11-2-16	
Anthracene	**ND**	0.0067	EPA 8270D/SIM	11-1-16	11-2-16	
Fluoranthene	**ND**	0.0067	EPA 8270D/SIM	11-1-16	11-2-16	
Pyrene	**ND**	0.0067	EPA 8270D/SIM	11-1-16	11-2-16	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	11-1-16	11-2-16	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	11-1-16	11-2-16	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	11-1-16	11-2-16	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	11-1-16	11-2-16	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	11-1-16	11-2-16	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	11-1-16	11-2-16	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	11-1-16	11-2-16	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	11-1-16	11-2-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*73*	*32 - 122*				
Pyrene-d10	*86*	*33 - 125*				
Terphenyl-d14	*81*	*36 - 118*				

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

PAHs EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1101S1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.0635**	**0.0679**	0.0833	0.0833	76	82	58 - 114	7	18	
Acenaphthylene	**0.0652**	**0.0701**	0.0833	0.0833	78	84	54 - 127	7	15	
Acenaphthene	**0.0646**	**0.0708**	0.0833	0.0833	78	85	58 - 119	9	15	
Fluorene	**0.0682**	**0.0739**	0.0833	0.0833	82	89	60 - 123	8	15	
Phenanthrene	**0.0657**	**0.0697**	0.0833	0.0833	79	84	54 - 120	6	15	
Anthracene	**0.0933**	**0.101**	0.0833	0.0833	112	121	55 - 152	8	15	
Fluoranthene	**0.0676**	**0.0721**	0.0833	0.0833	81	87	56 - 129	6	15	
Pyrene	**0.0687**	**0.0728**	0.0833	0.0833	82	87	60 - 126	6	15	
Benzo[a]anthracene	**0.0724**	**0.0775**	0.0833	0.0833	87	93	56 - 137	7	15	
Chrysene	**0.0765**	**0.0814**	0.0833	0.0833	92	98	59 - 122	6	15	
Benzo[b]fluoranthene	**0.0662**	**0.0717**	0.0833	0.0833	79	86	46 - 133	8	21	
Benzo(j,k)fluoranthene	**0.0747**	**0.0787**	0.0833	0.0833	90	94	47 - 129	5	21	
Benzo[a]pyrene	**0.0675**	**0.0724**	0.0833	0.0833	81	87	54 - 132	7	15	
Indeno(1,2,3-c,d)pyrene	**0.0652**	**0.0649**	0.0833	0.0833	78	78	54 - 129	0	15	
Dibenz[a,h]anthracene	**0.0680**	**0.0701**	0.0833	0.0833	82	84	59 - 122	3	15	
Benzo[g,h,i]perylene	**0.0738**	**0.0759**	0.0833	0.0833	89	91	57 - 125	3	16	
Surrogate:										
2-Fluorobiphenyl					*71*	*78*	*32 - 122*			
Pyrene-d10					*84*	*89*	*33 - 125*			
Terphenyl-d14					*78*	*82*	*36 - 118*			

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

TOTAL LEAD
EPA 6010C

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	10-315-07					
Client ID:	**F-9-8.0**					
Lead	**ND**	7.2	6010C	11-1-16	11-1-16	

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

TOTAL LEAD
EPA 6010C
METHOD BLANK QUALITY CONTROL

Date Extracted:	11-1-16
Date Analyzed:	11-1-16
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	MB1101SM1

Analyte	Method	Result	PQL
Lead	6010C	**ND**	5.0

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

TOTAL LEAD
EPA 6010C
DUPLICATE QUALITY CONTROL

Date Extracted: 11-1-16
Date Analyzed: 11-1-16

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 10-287-05

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Lead	**12.1**	**11.7**	4	5.0	

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

TOTAL LEAD
EPA 6010C
MS/MSD QUALITY CONTROL

Date Extracted: 11-1-16
Date Analyzed: 11-1-16

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 10-287-05

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Lead	250	**246**	94	**247**	94	0	

Date of Report: November 4, 2016
Samples Submitted: October 27, 2016
Laboratory Reference: 1610-315
Project: 1071-014

% MOISTURE

Date Analyzed: 10-31-16

Client ID	Lab ID	% Moisture
F-5-6.0	10-315-01	26
F-7-7.0	10-315-03	34
F-9-8.0	10-315-07	30

OnSite Environmental Inc.

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.

Z -

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

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 10-315

Company: Farallon
Project Number: 1071-014
Project Name: South Norfolk Street & East Marginal Way
Project Manager: Scott Allin
Sampled by: Ryan Ostrom

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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	Lead EPA 6000/7000 Series				% Moisture
1	F-5-6.0	10/26/16	1025	S	5		X		X																		X
2	F-5-GW		1050	W	6		X		X																		
3	F-7-7.0		1130	S	5		X		X																		X
4	F-7-GW		1200	W	6		X		X																		
5	F-8-6.0		1320	S	5																						
6	F-8-GW		1405	W	7			X	X	X																	
7	F-9-8.0		1505	S	5		X		X					X									X				X
8	F-9-GW		1520	W	6		X		X																		
9	F-10-GW		1730	W	6		X		X																		
	RO																										

	Signature	Company	Date	Time
Relinquished	Ryan Ostrom	Farallon	10/27/16	1455
Received		CORE	10/27/16	1455
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Farallon Consulting
Eric Buer
975 5th Ave NW
Issaquah, WA 98027

RE: Prologis 3301 S. Norfolk
Work Order Number: 1610331

October 27, 2016

Attention Eric Buer:

Fremont Analytical, Inc. received 4 sample(s) on 10/20/2016 for the analyses presented in the following report.

Volatile Organic Compounds-EPA Method TO-15 (SIM)

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Mike Ridgeway
Laboratory Director

Date: *10/27/2016*

CLIENT: Farallon Consulting
Project: Prologis 3301 S. Norfolk
Work Order: 1610331

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1610331-001	SG-F15-101916	10/19/2016 1:42 PM	10/20/2016 2:21 PM
1610331-002	SG-F18-101916	10/19/2016 12:49 PM	10/20/2016 2:21 PM
1610331-003	SG-F17-101916	10/19/2016 9:52 AM	10/20/2016 2:21 PM
1610331-004	SG-F16-101916	10/19/2016 9:03 AM	10/20/2016 2:21 PM

Case Narrative

WO#: **1610331**
Date: **10/27/2016**

CLIENT: Farallon Consulting
Project: Prologis 3301 S. Norfolk

WorkOrder Narrative:
I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Air samples are reported in ppbv and ug/m3.

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Standard temperature and pressure assumes 24.45 = (25C and 1 atm).

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Client: **Farallon Consulting**
WorkOrder: 1610331
Project: Prologis 3301 S. Norfolk

Client Sample ID: SG-F15-101916
Lab ID: 1610331-001A
Sample Type: Summa Canister

Date Sampled: 10/19/2016
Date Received: 10/20/2016

Volatile Organic Compounds-EPA Method TO-15 (SIM)

Analyte	Concentration (ppbv)	Concentration (ug/m³)	Reporting Limit (ppbv)	Reporting Limit (ug/m³)	Qual	Method	Date/Analyst	
1,1,1-Trichloroethane	<0.00500	<0.0273	0.00500	0.0273		EPA-TO-15SIM	10/25/2016	BC
1,1,2,2-Tetrachloroethane	<0.00620	<0.0426	0.00620	0.0426		EPA-TO-15SIM	10/25/2016	BC
1,1,2-Trichloroethane (TCA)	<0.0200	<0.109	0.0200	0.109		EPA-TO-15SIM	10/25/2016	BC
1,1-Dichloroethane	<0.00800	<0.0324	0.00800	0.0324		EPA-TO-15SIM	10/25/2016	BC
1,1-Dichloroethene (DCE)	<0.00900	<0.0357	0.00900	0.0357		EPA-TO-15SIM	10/25/2016	BC
1,2,4-Trichlorobenzene	<0.0500	<0.371	0.0500	0.371		EPA-TO-15SIM	10/25/2016	BC
1,2,4-Trimethylbenzene	0.290	1.43	0.0730	0.359		EPA-TO-15SIM	10/25/2016	BC
1,2-Dibromoethane (EDB)	<0.0200	<0.154	0.0200	0.154		EPA-TO-15SIM	10/25/2016	BC
1,2-Dichloroethane	<0.0200	<0.0809	0.0200	0.0809		EPA-TO-15SIM	10/25/2016	BC
Benzene	0.740	2.36	0.0400	0.128		EPA-TO-15SIM	10/25/2016	BC
Carbon tetrachloride	0.0200	0.126	0.0200	0.126		EPA-TO-15SIM	10/25/2016	BC
Chlorobenzene	<0.0700	<0.322	0.0700	0.322		EPA-TO-15SIM	10/25/2016	BC
Chloroethane	<0.0980	<0.259	0.0980	0.259		EPA-TO-15SIM	10/25/2016	BC
Chloroform	0.0600	0.293	0.0200	0.0977		EPA-TO-15SIM	10/25/2016	BC
Chloromethane	<0.400	<0.826	0.400	0.826		EPA-TO-15SIM	10/25/2016	BC
cis-1,2-Dichloroethene	<0.0200	<0.0793	0.0200	0.0793		EPA-TO-15SIM	10/25/2016	BC
Ethylbenzene	0.400	1.74	0.0500	0.217		EPA-TO-15SIM	10/25/2016	BC
Hexachlorobutadiene	<0.0166	<0.177	0.0166	0.177		EPA-TO-15SIM	10/25/2016	BC
m,p-Xylene	1.24	5.38	0.0600	0.261		EPA-TO-15SIM	10/25/2016	BC
Methylene chloride	0.160	0.556	0.0600	0.208	B	EPA-TO-15SIM	10/25/2016	BC
Naphthalene	<0.300	<1.57	0.300	1.57		EPA-TO-15SIM	10/25/2016	BC
Hexane	0.640	2.26	0.0700	0.247		EPA-TO-15SIM	10/25/2016	BC
o-Xylene	0.460	2.00	0.0400	0.174		EPA-TO-15SIM	10/25/2016	BC
Methyl tert-butyl ether (MTBE)	<0.00900	<0.0324	0.00900	0.0324		EPA-TO-15SIM	10/25/2016	BC
Tetrachloroethene (PCE)	6.88	46.7	0.800	5.43		EPA-TO-15SIM	10/25/2016	BC
Toluene	2.64	9.95	0.0500	0.188		EPA-TO-15SIM	10/25/2016	BC
trans-1,2-Dichloroethene	<0.00600	<0.0238	0.00600	0.0238		EPA-TO-15SIM	10/25/2016	BC
Trichloroethene (TCE)	<0.0170	<0.0914	0.0170	0.0914		EPA-TO-15SIM	10/25/2016	BC
Vinyl chloride	<0.0850	<0.217	0.0850	0.217		EPA-TO-15SIM	10/25/2016	BC
Surr: 4-Bromofluorobenzene	105 %Rec	--	70-130	--		EPA-TO-15SIM	10/25/2016	BC

Client: **Farallon Consulting**
WorkOrder: 1610331
Project: Prologis 3301 S. Norfolk

Client Sample ID:	SG-F15-101916	**Date Sampled:**	10/19/2016
Lab ID:	1610331-001A	**Date Received:**	10/20/2016
Sample Type:	Summa Canister		

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst
Volatile Organic Compounds-EPA Method TO-15 (SIM)							
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)			

NOTES:
Methylene Chloride is a common laboratory solvent.

Client: **Farallon Consulting**
WorkOrder: 1610331
Project: Prologis 3301 S. Norfolk

Client Sample ID: SG-F18-101916
Lab ID: 1610331-002A
Sample Type: Summa Canister

Date Sampled: 10/19/2016
Date Received: 10/20/2016

Volatile Organic Compounds-EPA Method TO-15 (SIM)

Analyte	Concentration (ppbv)	Concentration (ug/m³)	Reporting Limit (ppbv)	Reporting Limit (ug/m³)	Qual	Method	Date/Analyst	
1,1,1-Trichloroethane	0.120	0.655	0.00500	0.0273		EPA-TO-15SIM	10/25/2016	BC
1,1,2,2-Tetrachloroethane	<0.00620	<0.0426	0.00620	0.0426		EPA-TO-15SIM	10/25/2016	BC
1,1,2-Trichloroethane (TCA)	<0.0200	<0.109	0.0200	0.109		EPA-TO-15SIM	10/25/2016	BC
1,1-Dichloroethane	<0.00800	<0.0324	0.00800	0.0324		EPA-TO-15SIM	10/25/2016	BC
1,1-Dichloroethene (DCE)	<0.00900	<0.0357	0.00900	0.0357		EPA-TO-15SIM	10/25/2016	BC
1,2,4-Trichlorobenzene	<0.0500	<0.371	0.0500	0.371		EPA-TO-15SIM	10/25/2016	BC
1,2,4-Trimethylbenzene	0.560	2.75	0.0730	0.359		EPA-TO-15SIM	10/25/2016	BC
1,2-Dibromoethane (EDB)	<0.0200	<0.154	0.0200	0.154		EPA-TO-15SIM	10/25/2016	BC
1,2-Dichloroethane	0.100	0.405	0.0200	0.0809		EPA-TO-15SIM	10/25/2016	BC
Benzene	0.490	1.57	0.0400	0.128		EPA-TO-15SIM	10/25/2016	BC
Carbon tetrachloride	0.0300	0.189	0.0200	0.126		EPA-TO-15SIM	10/25/2016	BC
Chlorobenzene	<0.0700	<0.322	0.0700	0.322		EPA-TO-15SIM	10/25/2016	BC
Chloroethane	0.230	0.607	0.0980	0.259		EPA-TO-15SIM	10/25/2016	BC
Chloroform	4.15	20.3	0.0200	0.0977		EPA-TO-15SIM	10/25/2016	BC
Chloromethane	<0.400	<0.826	0.400	0.826		EPA-TO-15SIM	10/25/2016	BC
cis-1,2-Dichloroethene	<0.0200	<0.0793	0.0200	0.0793		EPA-TO-15SIM	10/25/2016	BC
Ethylbenzene	0.730	3.17	0.0500	0.217		EPA-TO-15SIM	10/25/2016	BC
Hexachlorobutadiene	<0.0166	<0.177	0.0166	0.177		EPA-TO-15SIM	10/25/2016	BC
m,p-Xylene	1.15	4.99	0.0600	0.261		EPA-TO-15SIM	10/25/2016	BC
Methylene chloride	0.310	1.08	0.0600	0.208	B	EPA-TO-15SIM	10/25/2016	BC
Naphthalene	<0.300	<1.57	0.300	1.57		EPA-TO-15SIM	10/25/2016	BC
Hexane	0.930	3.28	0.0700	0.247		EPA-TO-15SIM	10/25/2016	BC
o-Xylene	0.540	2.34	0.0400	0.174		EPA-TO-15SIM	10/25/2016	BC
Methyl tert-butyl ether (MTBE)	<0.00900	<0.0324	0.00900	0.0324		EPA-TO-15SIM	10/25/2016	BC
Tetrachloroethene (PCE)	0.170	1.15	0.0500	0.339		EPA-TO-15SIM	10/25/2016	BC
Toluene	5.30	20.0	0.0500	0.188		EPA-TO-15SIM	10/25/2016	BC
trans-1,2-Dichloroethene	<0.00600	<0.0238	0.00600	0.0238		EPA-TO-15SIM	10/25/2016	BC
Trichloroethene (TCE)	<0.0170	<0.0914	0.0170	0.0914		EPA-TO-15SIM	10/25/2016	BC
Vinyl chloride	<0.0850	<0.217	0.0850	0.217		EPA-TO-15SIM	10/25/2016	BC
Surr: 4-Bromofluorobenzene	117 %Rec	--	70-130	--		EPA-TO-15SIM	10/25/2016	BC

Client: **Farallon Consulting**
WorkOrder: 1610331
Project: Prologis 3301 S. Norfolk

Client Sample ID:	SG-F18-101916	**Date Sampled:**	10/19/2016
Lab ID:	1610331-002A	**Date Received:**	10/20/2016
Sample Type:	Summa Canister		

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst
Volatile Organic Compounds-EPA Method TO-15 (SIM)							
	(ppbv)	**(ug/m³)**	**(ppbv)**	**(ug/m³)**			

NOTES:
Methylene Chloride is a common laboratory solvent.

Client: **Farallon Consulting**
WorkOrder: 1610331
Project: Prologis 3301 S. Norfolk

Client Sample ID: SG-F17-101916
Lab ID: 1610331-003A
Sample Type: Summa Canister

Date Sampled: 10/19/2016
Date Received: 10/20/2016

Volatile Organic Compounds-EPA Method TO-15 (SIM)

Analyte	Concentration (ppbv)	Concentration (ug/m³)	Reporting Limit (ppbv)	Reporting Limit (ug/m³)	Qual	Method	Date/Analyst	
1,1,1-Trichloroethane	<0.00500	<0.0273	0.00500	0.0273		EPA-TO-15SIM	10/25/2016	BC
1,1,2,2-Tetrachloroethane	<0.00620	<0.0426	0.00620	0.0426		EPA-TO-15SIM	10/25/2016	BC
1,1,2-Trichloroethane (TCA)	0.0300	0.164	0.0200	0.109		EPA-TO-15SIM	10/25/2016	BC
1,1-Dichloroethane	0.250	1.01	0.00800	0.0324		EPA-TO-15SIM	10/25/2016	BC
1,1-Dichloroethene (DCE)	<0.00900	<0.0357	0.00900	0.0357		EPA-TO-15SIM	10/25/2016	BC
1,2,4-Trichlorobenzene	<0.0500	<0.371	0.0500	0.371		EPA-TO-15SIM	10/25/2016	BC
1,2,4-Trimethylbenzene	2.09	10.3	0.0730	0.359		EPA-TO-15SIM	10/25/2016	BC
1,2-Dibromoethane (EDB)	<0.0200	<0.154	0.0200	0.154		EPA-TO-15SIM	10/25/2016	BC
1,2-Dichloroethane	0.0900	0.364	0.0200	0.0809		EPA-TO-15SIM	10/25/2016	BC
Benzene	6.72	21.5	0.640	2.04		EPA-TO-15SIM	10/25/2016	BC
Carbon tetrachloride	<0.0200	<0.126	0.0200	0.126		EPA-TO-15SIM	10/25/2016	BC
Chlorobenzene	<0.0700	<0.322	0.0700	0.322		EPA-TO-15SIM	10/25/2016	BC
Chloroethane	<0.0980	<0.259	0.0980	0.259		EPA-TO-15SIM	10/25/2016	BC
Chloroform	0.0700	0.342	0.0200	0.0977		EPA-TO-15SIM	10/25/2016	BC
Chloromethane	<0.400	<0.826	0.400	0.826		EPA-TO-15SIM	10/25/2016	BC
cis-1,2-Dichloroethene	<0.0200	<0.0793	0.0200	0.0793		EPA-TO-15SIM	10/25/2016	BC
Ethylbenzene	2.29	9.94	0.0500	0.217		EPA-TO-15SIM	10/25/2016	BC
Hexachlorobutadiene	<0.0166	<0.177	0.0166	0.177		EPA-TO-15SIM	10/25/2016	BC
m,p-Xylene	0.820	3.56	0.0600	0.261		EPA-TO-15SIM	10/25/2016	BC
Methylene chloride	0.140	0.486	0.0600	0.208	B	EPA-TO-15SIM	10/25/2016	BC
Naphthalene	1.21	6.34	0.300	1.57		EPA-TO-15SIM	10/25/2016	BC
Hexane	98.9	349	1.12	3.95		EPA-TO-15SIM	10/25/2016	BC
o-Xylene	0.420	1.82	0.0400	0.174		EPA-TO-15SIM	10/25/2016	BC
Methyl tert-butyl ether (MTBE)	<0.00900	<0.0324	0.00900	0.0324		EPA-TO-15SIM	10/25/2016	BC
Tetrachloroethene (PCE)	0.130	0.882	0.0500	0.339		EPA-TO-15SIM	10/25/2016	BC
Toluene	0.650	2.45	0.0500	0.188		EPA-TO-15SIM	10/25/2016	BC
trans-1,2-Dichloroethene	<0.00600	<0.0238	0.00600	0.0238		EPA-TO-15SIM	10/25/2016	BC
Trichloroethene (TCE)	0.0500	0.269	0.0170	0.0914		EPA-TO-15SIM	10/25/2016	BC
Vinyl chloride	<0.0850	<0.217	0.0850	0.217		EPA-TO-15SIM	10/25/2016	BC
Surr: 4-Bromofluorobenzene	118 %Rec	--	70-130	--		EPA-TO-15SIM	10/25/2016	BC

Client: **Farallon Consulting**
WorkOrder: 1610331
Project: Prologis 3301 S. Norfolk

Client Sample ID:	SG-F17-101916	**Date Sampled:**	10/19/2016
Lab ID:	1610331-003A	**Date Received:**	10/20/2016
Sample Type:	Summa Canister		

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst
Volatile Organic Compounds-EPA Method TO-15 (SIM)							
	(ppbv)	**(ug/m³)**	**(ppbv)**	**(ug/m³)**			

NOTES:
Methylene Chloride is a common laboratory solvent.

Client: **Farallon Consulting**
WorkOrder: 1610331
Project: Prologis 3301 S. Norfolk

Client Sample ID: SG-F16-101916
Lab ID: 1610331-004A
Sample Type: Summa Canister

Date Sampled: 10/19/2016
Date Received: 10/20/2016

Volatile Organic Compounds-EPA Method TO-15 (SIM)

Analyte	Concentration (ppbv)	Concentration (ug/m³)	Reporting Limit (ppbv)	Reporting Limit (ug/m³)	Qual	Method	Date/Analyst	
1,1,1-Trichloroethane	0.0200	0.109	0.00500	0.0273		EPA-TO-15SIM	10/25/2016	BC
1,1,2,2-Tetrachloroethane	<0.00620	<0.0426	0.00620	0.0426		EPA-TO-15SIM	10/25/2016	BC
1,1,2-Trichloroethane (TCA)	<0.0200	<0.109	0.0200	0.109		EPA-TO-15SIM	10/25/2016	BC
1,1-Dichloroethane	<0.00800	<0.0324	0.00800	0.0324		EPA-TO-15SIM	10/25/2016	BC
1,1-Dichloroethene (DCE)	<0.00900	<0.0357	0.00900	0.0357		EPA-TO-15SIM	10/25/2016	BC
1,2,4-Trichlorobenzene	<0.0500	<0.371	0.0500	0.371		EPA-TO-15SIM	10/25/2016	BC
1,2,4-Trimethylbenzene	0.0800	0.393	0.0730	0.359		EPA-TO-15SIM	10/25/2016	BC
1,2-Dibromoethane (EDB)	<0.0200	<0.154	0.0200	0.154		EPA-TO-15SIM	10/25/2016	BC
1,2-Dichloroethane	<0.0200	<0.0809	0.0200	0.0809		EPA-TO-15SIM	10/25/2016	BC
Benzene	0.140	0.447	0.0400	0.128		EPA-TO-15SIM	10/25/2016	BC
Carbon tetrachloride	<0.0200	<0.126	0.0200	0.126		EPA-TO-15SIM	10/25/2016	BC
Chlorobenzene	<0.0700	<0.322	0.0700	0.322		EPA-TO-15SIM	10/25/2016	BC
Chloroethane	<0.0980	<0.259	0.0980	0.259		EPA-TO-15SIM	10/25/2016	BC
Chloroform	0.220	1.07	0.0200	0.0977		EPA-TO-15SIM	10/25/2016	BC
Chloromethane	<0.400	<0.826	0.400	0.826		EPA-TO-15SIM	10/25/2016	BC
cis-1,2-Dichloroethene	<0.0200	<0.0793	0.0200	0.0793		EPA-TO-15SIM	10/25/2016	BC
Ethylbenzene	0.0700	0.304	0.0500	0.217		EPA-TO-15SIM	10/25/2016	BC
Hexachlorobutadiene	<0.0166	<0.177	0.0166	0.177		EPA-TO-15SIM	10/25/2016	BC
m,p-Xylene	0.190	0.825	0.0600	0.261		EPA-TO-15SIM	10/25/2016	BC
Methylene chloride	0.160	0.556	0.0600	0.208	B	EPA-TO-15SIM	10/25/2016	BC
Naphthalene	<0.300	<1.57	0.300	1.57		EPA-TO-15SIM	10/25/2016	BC
Hexane	0.150	0.529	0.0700	0.247		EPA-TO-15SIM	10/25/2016	BC
o-Xylene	0.0800	0.347	0.0400	0.174		EPA-TO-15SIM	10/25/2016	BC
Methyl tert-butyl ether (MTBE)	<0.00900	<0.0324	0.00900	0.0324		EPA-TO-15SIM	10/25/2016	BC
Tetrachloroethene (PCE)	2.10	14.2	0.0500	0.339		EPA-TO-15SIM	10/25/2016	BC
Toluene	0.320	1.21	0.0500	0.188		EPA-TO-15SIM	10/25/2016	BC
trans-1,2-Dichloroethene	<0.00600	<0.0238	0.00600	0.0238		EPA-TO-15SIM	10/25/2016	BC
Trichloroethene (TCE)	<0.0170	<0.0914	0.0170	0.0914		EPA-TO-15SIM	10/25/2016	BC
Vinyl chloride	<0.0850	<0.217	0.0850	0.217		EPA-TO-15SIM	10/25/2016	BC
Surr: 4-Bromofluorobenzene	95.2 %Rec	--	70-130	--		EPA-TO-15SIM	10/25/2016	BC

Client: **Farallon Consulting**
WorkOrder: 1610331
Project: Prologis 3301 S. Norfolk

Client Sample ID:	SG-F16-101916	**Date Sampled:**	10/19/2016
Lab ID:	1610331-004A	**Date Received:**	10/20/2016
Sample Type:	Summa Canister		

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst
Volatile Organic Compounds-EPA Method TO-15 (SIM)							
	(ppbv)	**(ug/m³)**	**(ppbv)**	**(ug/m³)**			

NOTES:
Methylene Chloride is a common laboratory solvent.

Work Order: 1610331
CLIENT: Farallon Consulting
Project: Prologis 3301 S. Norfolk

QC SUMMARY REPORT

Volatile Organic Compounds-EPA Method TO-15 (SIM)

Sample ID **LCS-R32519** SampType: **LCS** Units: **ppbv** Prep Date: **10/25/2016** RunNo: **32519**
Client ID: **LCSW** Batch ID: **R32519** Analysis Date: **10/25/2016** SeqNo: **615676**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloromethane	4.84	0.400	5.000	0	96.8	70	130				
Vinyl chloride	4.83	0.0850	5.000	0	96.6	70	130				
Chloroethane	4.77	0.0980	5.000	0	95.4	70	130				
1,1-Dichloroethene (DCE)	4.71	0.00900	5.000	0	94.2	70	130				
Methylene chloride	4.56	0.0600	5.000	0	91.2	70	130				B
trans-1,2-Dichloroethene	4.79	0.00600	5.000	0	95.8	70	130				
Methyl tert-butyl ether (MTBE)	4.98	0.00900	5.000	0	99.6	70	130				
Hexane	4.61	0.0700	5.000	0	92.2	70	130				
1,1-Dichloroethane	4.82	0.00800	5.000	0	96.4	70	130				
cis-1,2-Dichloroethene	4.92	0.0200	5.000	0	98.4	70	130				
Chloroform	4.94	0.0200	5.000	0	98.8	70	130				
1,1,1-Trichloroethane	4.81	0.00500	5.000	0	96.2	70	130				
Carbon tetrachloride	4.80	0.0200	5.000	0	96.0	70	130				
1,2-Dichloroethane	4.77	0.0200	5.000	0	95.4	70	130				
Benzene	5.00	0.0400	5.000	0	100	70	130				
Trichloroethene (TCE)	4.72	0.0170	5.000	0	94.4	70	130				
Toluene	4.79	0.0500	5.000	0	95.8	70	130				
1,1,2-Trichloroethane (TCA)	4.80	0.0200	5.000	0	96.0	70	130				
Tetrachloroethene (PCE)	4.84	0.0500	5.000	0	96.8	70	130				
1,2-Dibromoethane (EDB)	4.81	0.0200	5.000	0	96.2	70	130				
Chlorobenzene	4.23	0.0700	5.000	0	84.6	70	130				
Ethylbenzene	4.99	0.0500	5.000	0	99.8	70	130				
m,p-Xylene	9.49	0.0600	10.00	0	94.9	70	130				
o-Xylene	4.80	0.0400	5.000	0	96.0	70	130				
1,1,2,2-Tetrachloroethane	4.74	0.00620	5.000	0	94.8	70	130				
1,2,4-Trimethylbenzene	4.77	0.0730	5.000	0	95.4	70	130				
1,2,4-Trichlorobenzene	4.81	0.0500	5.000	0	96.2	70	130				
Hexachlorobutadiene	4.56	0.0166	5.000	0	91.2	70	130				
Naphthalene	4.78	0.300	5.000	0	95.6	70	130				
Surr: 4-Bromofluorobenzene	10.1		10.00		101	70	130				

Work Order: 1610331
CLIENT: Farallon Consulting
Project: Prologis 3301 S. Norfolk

QC SUMMARY REPORT

Volatile Organic Compounds-EPA Method TO-15 (SIM)

Sample ID **MB-R32519** SampType: **MBLK** Units: **ppbv** Prep Date: **10/25/2016** RunNo: **32519**
Client ID: **MBLKW** Batch ID: **R32519** Analysis Date: **10/25/2016** SeqNo: **615677**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloromethane	ND	0.400									
Vinyl chloride	ND	0.0850									
Chloroethane	ND	0.0980									
1,1-Dichloroethene (DCE)	ND	0.00900									
Methylene chloride	0.700	0.0600									
trans-1,2-Dichloroethene	ND	0.00600									
Methyl tert-butyl ether (MTBE)	ND	0.00900									
Hexane	ND	0.0700									
1,1-Dichloroethane	ND	0.00800									
cis-1,2-Dichloroethene	ND	0.0200									
Chloroform	ND	0.0200									
1,1,1-Trichloroethane	ND	0.00500									
Carbon tetrachloride	ND	0.0200									
1,2-Dichloroethane	ND	0.0200									
Benzene	ND	0.0400									
Trichloroethene (TCE)	ND	0.0170									
Toluene	ND	0.0500									
1,1,2-Trichloroethane (TCA)	ND	0.0200									
Tetrachloroethene (PCE)	ND	0.0500									
1,2-Dibromoethane (EDB)	ND	0.0200									
Chlorobenzene	ND	0.0700									
Ethylbenzene	ND	0.0500									
m,p-Xylene	ND	0.0600									
o-Xylene	ND	0.0400									
1,1,2,2-Tetrachloroethane	ND	0.00620									
1,2,4-Trimethylbenzene	ND	0.0730									
1,2,4-Trichlorobenzene	ND	0.0500									
Hexachlorobutadiene	ND	0.0166									
Naphthalene	ND	0.300									
Surr: 4-Bromofluorobenzene	9.45		10.00		94.5	70	130				

Work Order: 1610331
CLIENT: Farallon Consulting
Project: Prologis 3301 S. Norfolk

QC SUMMARY REPORT

Volatile Organic Compounds-EPA Method TO-15 (SIM)

Sample ID **1610331-001AREP** SampType: **REP** Units: **ppbv** Prep Date: **10/25/2016** RunNo: **32519**
Client ID: **SG-F15-101916** Batch ID: **R32519** Analysis Date: **10/25/2016** SeqNo: **615667**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloromethane	ND	0.400						0		30	
Vinyl chloride	ND	0.0850						0		30	
Chloroethane	ND	0.0980						0		30	
1,1-Dichloroethene (DCE)	ND	0.00900						0		30	
Methylene chloride	0.160	0.0600						0.1600	0	30	B
trans-1,2-Dichloroethene	ND	0.00600						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.00900						0		30	
Hexane	0.650	0.0700						0.6400	1.55	30	
1,1-Dichloroethane	ND	0.00800						0		30	
cis-1,2-Dichloroethene	ND	0.0200						0		30	
Chloroform	0.0600	0.0200						0.06000	0	30	
1,1,1-Trichloroethane	ND	0.00500						0		30	
Carbon tetrachloride	0.0200	0.0200						0.02000	0	30	
1,2-Dichloroethane	ND	0.0200						0		30	
Benzene	0.750	0.0400						0.7400	1.34	30	
Trichloroethene (TCE)	ND	0.0170						0		30	
Toluene	2.50	0.0500						2.640	5.45	30	
1,1,2-Trichloroethane (TCA)	ND	0.0200						0		30	
Tetrachloroethene (PCE)	6.53	0.0500						6.780	3.76	30	E
1,2-Dibromoethane (EDB)	ND	0.0200						0		30	
Chlorobenzene	ND	0.0700						0		30	
Ethylbenzene	0.390	0.0500						0.4000	2.53	30	
m,p-Xylene	1.21	0.0600						1.240	2.45	30	
o-Xylene	0.450	0.0400						0.4600	2.20	30	
1,1,2,2-Tetrachloroethane	ND	0.00620						0		30	
1,2,4-Trimethylbenzene	0.340	0.0730						0.2900	15.9	30	
1,2,4-Trichlorobenzene	ND	0.0500						0		30	
Hexachlorobutadiene	ND	0.0166						0		30	
Naphthalene	ND	0.300						0		30	
Surr: 4-Bromofluorobenzene	11.1		10.00		111	70	130		0		

Work Order: 1610331
CLIENT: Farallon Consulting
Project: Prologis 3301 S. Norfolk

QC SUMMARY REPORT

Volatile Organic Compounds-EPA Method TO-15 (SIM)

Sample ID **1610331-001AREP** SampType: **REP** Units: **ppbv** Prep Date: **10/25/2016** RunNo: **32519**
Client ID: **SG-F15-101916** Batch ID: **R32519** Analysis Date: **10/25/2016** SeqNo: **615667**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:
E - Estimated value. The amount exceeds the linear working range of the instrument.
Methylene Chloride is a common laboratory solvent.

Sample Log-In Check List

Client Name:	**FARA**	Work Order Number:	**1610331**
Logged by:	**Clare Griggs**	Date Received:	**10/20/2016 2:21:00 PM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☐	No ☑	NA ☐
		Air Samples		
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Required ☑
6.	Was an attempt made to cool the samples?	Yes ☐	No ☐	NA ☑
7.	Were all items received at a temperature of >0°C to 10.0°C*	Yes ☐	No ☐	NA ☑
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Air Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Laboratory Project No (Internal): 1610331

Date: 10/19/16 Page: 1 of: 1

Client: Farallon Consulting
Address: 975 5th Ave NW
City, State, Zip: Issaquah WA 98027
Telephone: (425) 295 0800 Fax: (425) 295 0850

Project Name: Prologis 3301 S Norfolk
Project No: 1071-014 Collected by: ROL
Location: Seattle, WA
Reports To (PM): Eric Beyer
Email (PM): EBUER @ FARALLONCONSULTING.com

* Gas Matrix Codes: I = Indoor SS = Subslab L = Landfill SG = Soil Gas M = Plume Mapping Q = Fuel Gas Quality L = LEED (Consult Client Services)

** Container Codes: 6L = Six Liter Canister (Summa) TB = Tedlar Bag BV = 1 Liter Bottle Vac MC = 1 Liter MiniCan HP = High Pressure Cylinder HJ = Glass Headspace Jar

	Sample Name	Canister / Flow Reg Serial #	Sample Date & Time	Gas Matrix Code *	Anticipated Fill Time	Sample Volume	Container Type **	Internal: Evacuation Pressure (mtorr)	Internal: Pressure at Time of Pick-up (" Hg)	Internal: Equipment Certificaton Code	Field Initial Sample Pressure (" Hg)	Field Final Sample Pressure (" Hg)	Analysis Requested	Internal: Receipt Date	Internal: Final Pressure ("Hg)
1	SG-F15-101916	17240 Canister / 1 Flow Reg	10/19/16 Date / 1347 Time	SG	200mL/min	6L	Summa	10 mTorr Pressure / Date	Pressure / Date/Time	Container / Regulator	30 Pressure / 1347 Time	5 Pressure / 1404 Time	TO-15 SIM	10/20	-4
4	SG-F18-101916	17647 Canister / 1 Flow Reg	10/19/16 Date / 1249 Time	SG	200mL/min	6L	Summa	10 mTorr Pressure / Date	Pressure / Date/Time	Container / Regulator	30 Pressure / 1249 Time	4.0 Pressure / 1314 Time		10/20	-4
4	SG-F17-101916	15900 Canister / 1 Flow Reg	10/19/16 Date / 952 Time	SG	200mL/min	6L	Summa	10 mTorr Pressure / Date	Pressure / Date/Time	Container / Regulator	30.0 Pressure / 952 Time	5.0 Pressure / 1014 Time		10/20	-4
4	SG-F16-101916	17234 Canister / 1 Flow Reg	10/19/16 Date / 903 Time	SG	200mL/min	6L	Summa	10 mTorr Pressure / Date	Pressure / Date/Time	Container / Regulator	30.0 Pressure / 903 Time	4.0 Pressure / 925 Time		10/20	-4
5		Canister / Flow Reg	Date / Time					Pressure / Date	Pressure / Date/Time	Container / Regulator	Pressure / Time	Pressure / Time			

Condition:

Seals Intact: Y N N/A

Turn-around times for samples received after 4:00pm will begin on the following business day.

Special Remarks:

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x	10/19/16 1700	x	10/20/16 1421
x		x	

TAT --> (STD) Rush (specify)

APPENDIX C
TERRESTRIAL ECOLOGICAL EVALUATION

REMEDIAL INVESTIGATION, FOCUSED FEASIBILITY STUDY,
AND CLEANUP ACTION PLAN
3301 South Norfolk Street and 10230 East Marginal Way South
Seattle/Tukwila, Washington

Farallon PN: 1071-026

Voluntary Cleanup Program

Washington State Department of Ecology
Toxics Cleanup Program

TERRESTRIAL ECOLOGICAL EVALUATION FORM

Under the Model Toxics Control Act (MTCA), a terrestrial ecological evaluation is necessary if hazardous substances are released into the soils at a Site. In the event of such a release, you must take one of the following three actions as part of your investigation and cleanup of the Site:

1. Document an exclusion from further evaluation using the criteria in WAC 173-340-7491.
2. Conduct a simplified evaluation as set forth in WAC 173-340-7492.
3. Conduct a site-specific evaluation as set forth in WAC 173-340-7493.

When requesting a written opinion under the Voluntary Cleanup Program (VCP), you must complete this form and submit it to the Department of Ecology (Ecology). The form documents the type and results of your evaluation.

Completion of this form is not sufficient to document your evaluation. You still need to document your analysis and the basis for your conclusion in your cleanup plan or report.

If you have questions about how to conduct a terrestrial ecological evaluation, please contact the Ecology site manager assigned to your Site. For additional guidance, please refer to www.ecy.wa.gov/programs/tcp/policies/terrestrial/TEEHome.htm.

Step 1: IDENTIFY HAZARDOUS WASTE SITE	
Please identify below the hazardous waste site for which you are documenting an evaluation.	
Facility/Site Name: Unified Grocers 3301 Norfolk	
Facility/Site Address: 3301 S. Norfolk Street and 10230 E. Marginal Way, Seattle/Tukwila	
Facility/Site No: 73338176	VCP Project No.:

Step 2: IDENTIFY EVALUATOR			
Please identify below the person who conducted the evaluation and their contact information.			
Name: Donald Lance			Title: Senior Geologist
Organization: Farallon Consulting, LLC			
Mailing address: 975 5th Avenue Northwest			
City: Issaquah		State: WA	Zip code: 98027
Phone: (425) 295-0840	Fax: (425) 295-0850	E-mail: dlance@farallonconsulting.com	

Step 3: DOCUMENT EVALUATION TYPE AND RESULTS

A. Exclusion from further evaluation.

1. Does the Site qualify for an exclusion from further evaluation?

☐ Yes *If you answered **"YES,"** then answer **Question 2**.*

☒ No or Unknown *If you answered **"NO" or "UKNOWN,"** then skip to **Step 3B** of this form.*

2. What is the basis for the exclusion? *Check all that apply. Then skip to **Step 4** of this form.*

Point of Compliance: WAC 173-340-7491(1)(a)

☐ All soil contamination is, or will be,* at least 15 feet below the surface.

☐ All soil contamination is, or will be,* at least 6 feet below the surface (or alternative depth if approved by Ecology), and institutional controls are used to manage remaining contamination.

Barriers to Exposure: WAC 173-340-7491(1)(b)

☐ All contaminated soil, is or will be,* covered by physical barriers (such as buildings or paved roads) that prevent exposure to plants and wildlife, and institutional controls are used to manage remaining contamination.

Undeveloped Land: WAC 173-340-7491(1)(c)

☐ There is less than 0.25 acres of contiguous[#] undeveloped[±] land on or within 500 feet of any area of the Site and any of the following chemicals is present: chlorinated dioxins or furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, heptachlor epoxide, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, or pentachlorobenzene.

☐ For sites not containing any of the chemicals mentioned above, there is less than 1.5 acres of contiguous[#] undeveloped[±] land on or within 500 feet of any area of the Site.

Background Concentrations: WAC 173-340-7491(1)(d)

☐ Concentrations of hazardous substances in soil do not exceed natural background levels as described in WAC 173-340-200 and 173-340-709.

* An exclusion based on future land use must have a completion date for future development that is acceptable to Ecology.

[±] "Undeveloped land" is land that is not covered by building, roads, paved areas, or other barriers that would prevent wildlife from feeding on plants, earthworms, insects, or other food in or on the soil.

[#] "Contiguous" undeveloped land is an area of undeveloped land that is not divided into smaller areas of highways, extensive paving, or similar structures that are likely to reduce the potential use of the overall area by wildlife.

B. Simplified evaluation.

1. Does the Site qualify for a simplified evaluation?

- ■ Yes — *If you answered **"YES,"** then answer **Question 2** below.*
- ☐ No or Unknown — *If you answered **"NO"** or **"UNKNOWN,"** then skip to **Step 3C** of this form.*

2. Did you conduct a simplified evaluation?

- ■ Yes — *If you answered **"YES,"** then answer **Question 3** below.*
- ☐ No — *If you answered **"NO,"** then skip to **Step 3C** of this form.*

3. Was further evaluation necessary?

- ☐ Yes — *If you answered **"YES,"** then answer **Question 4** below.*
- ■ No — *If you answered **"NO,"** then answer **Question 5** below.*

4. If further evaluation was necessary, what did you do?

- ☐ Used the concentrations listed in Table 749-2 as cleanup levels. *If so, then skip to **Step 4** of this form.*
- ☐ Conducted a site-specific evaluation. *If so, then skip to **Step 3C** of this form.*

5. If no further evaluation was necessary, what was the reason? *Check all that apply. Then skip to **Step 4** of this form.*

Exposure Analysis: WAC 173-340-7492(2)(a)

- ☐ Area of soil contamination at the Site is not more than 350 square feet.
- ☒ Current or planned land use makes wildlife exposure unlikely. Used Table 749-1.

Pathway Analysis: WAC 173-340-7492(2)(b)

- ☒ No potential exposure pathways from soil contamination to ecological receptors.

Contaminant Analysis: WAC 173-340-7492(2)(c)

- ☒ No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations that exceed the values listed in Table 749-2.
- ☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations that exceed the values listed in Table 749-2, and institutional controls are used to manage remaining contamination.
- ☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays.
- ☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays, and institutional controls are used to manage remaining contamination.

C. Site-specific evaluation. A site-specific evaluation process consists of two parts: (1) formulating the problem, and (2) selecting the methods for addressing the identified problem. Both steps require consultation with and approval by Ecology. *See* WAC 173-340-7493(1)(c).

1. Was there a problem? *See* WAC 173-340-7493(2).

☐ Yes *If you answered **"YES,"** then answer **Question 2** below.*

☐ No *If you answered **"NO,"** then identify the reason here and then skip to **Question 5** below:*

- ☐ No issues were identified during the problem formulation step.
- ☐ While issues were identified, those issues were addressed by the cleanup actions for protecting human health.

2. What did you do to resolve the problem? *See* WAC 173-340-7493(3).

☐ Used the concentrations listed in Table 749-3 as cleanup levels. *If so, then skip to **Question 5** below.*

☐ Used one or more of the methods listed in WAC 173-340-7493(3) to evaluate and address the identified problem. *If so, then answer **Questions 3 and 4** below.*

3. If you conducted further site-specific evaluations, what methods did you use?
Check all that apply. See WAC 173-340-7493(3).

- ☐ Literature surveys.
- ☐ Soil bioassays.
- ☐ Wildlife exposure model.
- ☐ Biomarkers.
- ☐ Site-specific field studies.
- ☐ Weight of evidence.
- ☐ Other methods approved by Ecology. If so, please specify:

4. What was the result of those evaluations?

- ☐ Confirmed there was no problem.
- ☐ Confirmed there was a problem and established site-specific cleanup levels.

5. Have you already obtained Ecology's approval of both your problem formulation and problem resolution steps?

☐ Yes If so, please identify the Ecology staff who approved those steps:

☐ No

Step 4: SUBMITTAL

Please mail your completed form to the Ecology site manager assigned to your Site. If a site manager has not yet been assigned, please mail your completed form to the Ecology regional office for the County in which your Site is located.

Northwest Region: Attn: VCP Coordinator 3190 160th Ave. SE Bellevue, WA 98008-5452	**Central Region:** Attn: VCP Coordinator 1250 West Alder St. Union Gap, WA 98903-0009
Southwest Region: Attn: VCP Coordinator P.O. Box 47775 Olympia, WA 98504-7775	**Eastern Region:** Attn: VCP Coordinator N. 4601 Monroe Spokane WA 99205-1295

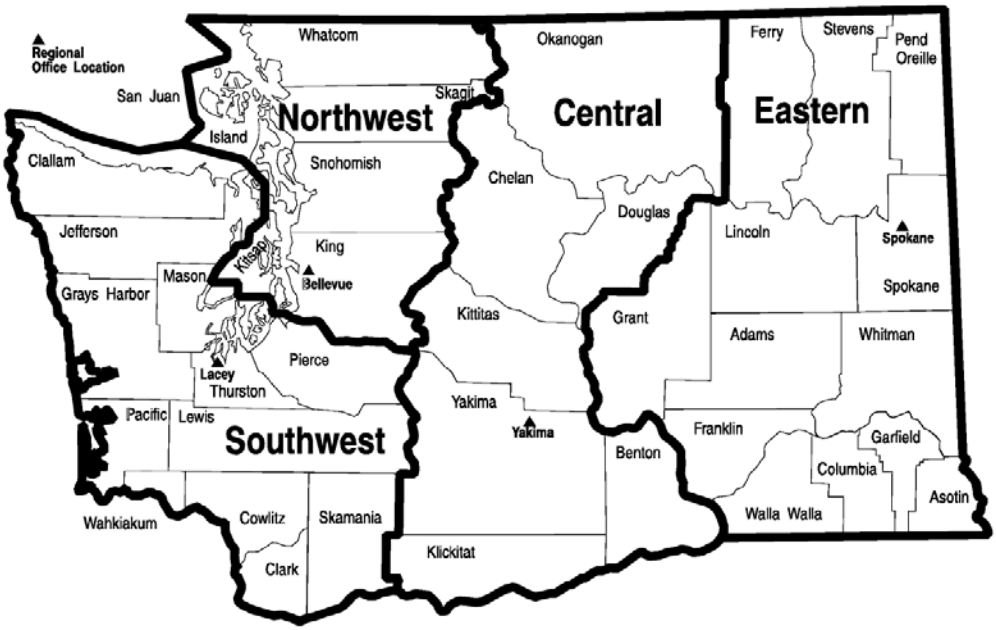


Table 749-1

Simplified Terrestrial Ecological Evaluation-Exposure Analysis Procedure

Estimate the area of contiguous (connected) undeveloped land on the site or within 500 feet of any area of the site to the nearest 1/2 acre (1/4 acre if the area is less than 0.5 acre).	
1) From the table below, find the number of points corresponding to the area and enter this number in the field to the right.	
Area (acres) / Points 0.25 or less / 4 0.5 / 5 1.0 / 6 1.5 / 7 2.0 / 8 2.5 / 9 3.0 / 10 3.5 / 11 4.0 or more / 12	8
2) Is this an industrial or commercial property? If yes, enter a score of 3. If no, enter a score of 1	3
3)[a] Enter a score in the box to the right for the habitat quality of the site, using the following rating system[b]. High=1, Intermediate=2, Low=3	3
4) Is the undeveloped land likely to attract wildlife? If yes, enter a score of 1 in the box to the right. If no, enter a score of 2.[c]	2
5) Are there any of the following soil contaminants present: Chlorinated dioxins/furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, pentachlorobenzene? If yes, enter a score of 1 in the box to the right. If no, enter a score of 4.	4
6) Add the numbers in the boxes on lines 2-5 and enter this number in the box to the right. If this number is larger than the number in the box on line 1, the simplified evaluation may be ended.	12

Notes for Table 749-1

[a] It is expected that this habitat evaluation will be undertaken by an experienced field biologist. If this is not the case, enter a conservative score of (1) for questions 3 and 4.

[b] **Habitat rating system.** Rate the quality of the habitat as high, intermediate or low based on your professional judgment as a field biologist. The following are suggested factors to consider in making this evaluation:

> **Low:** Early successional vegetative stands; vegetation predominantly noxious, nonnative, exotic plant species or weeds. Areas severely disturbed by human activity, including intensively cultivated croplands. Areas isolated from other habitat used by wildlife.

High: Area is ecologically significant for one or more of the following reasons: Late-successional native plant communities present; relatively high species diversity; used by an uncommon or rare species; priority habitat (as defined by the Washington Department of fish and Wildlife); part of a larger area of habitat where size or fragmentation may be important for the retention of some species.

Intermediate: Area does not rate as either high or low.

[c] Indicate "yes" if the area attracts wildlife or is likely to do so. Examples: Birds frequently visit the area to feed; evidence of high use b mammals (tracks, scat, etc.); habitat "island" in an industrial area; unusual features of an area that make it important for feeding animals; heavy use during seasonal migrations.

[Area Calculation Aid] [Aerial Photo with Area Designations] [TEE Table 749-1] [Index of Tables]

[Exclusions Main] [TEE Definitions] [Simplified or Site-Specific?] [Simplified Ecological Evaluation] [Site-Specific Ecological Evaluation] [WAC 173-340-7493]

[TEE Home]

Washington State Department of Ecology
Toxics Cleanup Program

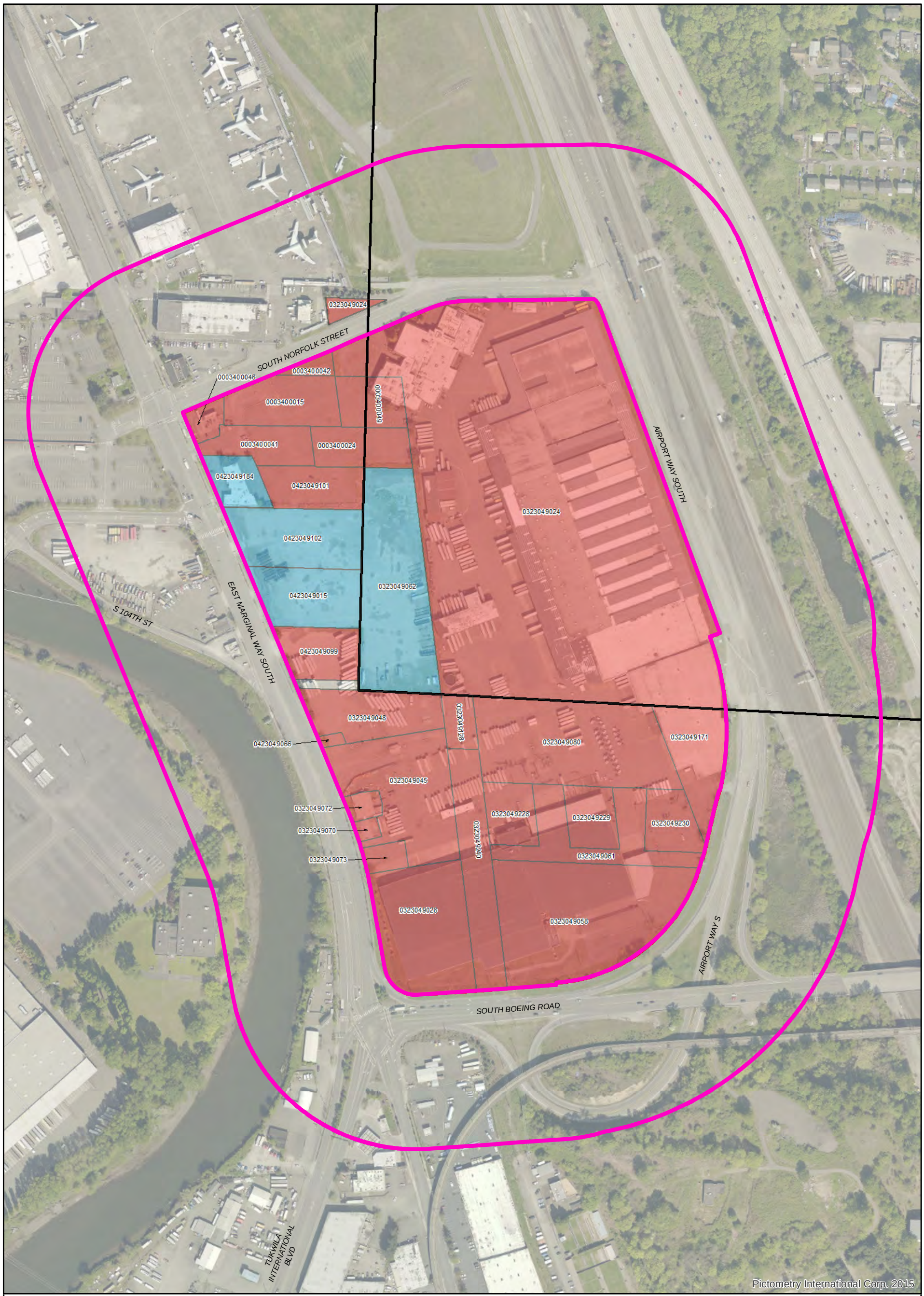
Terrestrial Ecological Evaluation Process- Simplified Evaluation

Documentation Form

Criteria # (Concern)	Criteria	Response (Circle One)
1 (exposure)	Is the total area of soil contamination at the site less than or equal to 350 square feet	**Yes (End TEE) / No**
2 (exposure)	Does land use at the site and surrounding area make substantial wildlife exposure unlikely based on completion of Table 749-1?	**Yes (End TEE) / No**
3 (pathway)	Is there a potential exposure pathway from soil contamination to soil biota, plants, or wildlife?	**Yes / No (End TEE)**
4 (contaminant)	Are the hazardous substances at your site listed in Table 749-2 and is (or will) their location in the soil at your site be at a depth not exceeding the point of compliance, and at concentrations that do not exceed the values provided in Table 749-2.	**Yes (End TEE) / No** **Note: You must perform bioassays for contaminants at your site if no table value is provided.**
5 (contaminant)	Will hazardous substances listed in Table 749-2 be present in the soil at your site within 6 feet of the ground surface at concentrations likely to be toxic, or with the potential to bioaccumulate, based on bioassays using methods approved by the department.	**Yes / No (End TEE)**

[Exclusions Main] [TEE Definitions] [Simplified or Site-Specific?] [Simplified Ecological Evaluation] [Site-Specific Ecological Evaluation] [WAC 173-340-7493] [Index of Tables]

[TEE Home]



LEGEND

- 500-FOOT PROPERTY RADIUS BOUNDARY
- PARCEL BOUNDARY (WITH PARCEL NUMBER)
- 10230 EAST MARGINAL WAY SOUTH
- 3301 SOUTH NORFOLK STREET
- PROPERTY BOUNDARY

DRAFT

0 300
Feet

N

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Washington
Issaquah | Bellingham | Seattle

Oregon
Portland | Bend | Baker City

California
Oakland | Sacramento | Irvine

500-FOOT PROPERTY RADIUS BOUNDARY FOR TERRESTRIAL ECOLOGICAL EVALUATION
3301 SOUTH NORFOLK STREET AND 10230 EAST MARGINAL WAY SOUTH SEATTLE/ TUKWILA, WASHINGTON

FARALLON PN: 1071-026

Drawn By: jjones | Checked By: DML | Date: 11/1/2017 | Disc Reference:

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