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REMEDIAL INVESTIGATION REPORT

KELLOGGS KORNER MIDVALE AND EMERALD ROADS SUNNYSIDE, WASHINGTON

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April 2018

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ACRONYMS AND ABBREVIATIONS

bgs below ground surface

BTEX benzene, toluene, ethylbenzene, xylenes

CFR Code of Federal Regulations

Chen-Northern Chen-Northern, Inc.

COPC constituents of potential concern

DRO total petroleum hydrocarbons as diesel-range organics

Ecology Washington Department of Ecology

EDB 1,2-dibromethane
EDC 1,2-dichloroethane

EPA U.S. Environmental Protection Agency

Farallon Farallon Consulting, L.L.C.

GRO total petroleum hydrocarbons as gasoline-range organics

Interim Action an interim remedial action performed at the Site in 1990 through 1991

Property former Kelloggs Korner property at the intersection of the Midvale

and Emerald Roads in Sunnyside, Washington

MTBE methyl tertiary-butyl ether

μg/l microgram per liter

mg/kg milligram per kilogram

MTCA Washington State Model Toxics Control Act Cleanup Regulation

ORO total petroleum hydrocarbons as oil-range organics

PQL practical quantitation limit

RI Remedial Investigation

Site areas on and off the former Kelloggs Korner property where

hazardous substances were located as a result of the release of

hazardous substances at the former Kelloggs Korner property

TEE terrestrial ecological evaluation

UST underground storage tank

VCP Voluntary Cleanup Program

WAC Washington Administrative Code



1.0 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) has prepared this Remedial Investigation (RI) Report to document the results of soil sampling, monitoring well installation, and groundwater monitoring and sampling conducted to characterize the nature and extent of historical releases of hazardous substances associated with the former Kelloggs Korner property at the intersection of the Midvale and Emerald Roads in Sunnyside, Washington (herein referred to as the Property) (Figure 1). The Site, as referred to herein, is defined as the areas on and off the Property where hazardous substances were located as a result of the release of hazardous substances at the Property, which includes portions of the Property and areas off the Property in the adjacent rights-of-way beneath Midvale Road to the east; Emerald Road to the south; agricultural fields to the east and south; and the gravel lot to the southeast, which is located on the corner of the Milky Way, LTI, Inc. property at 333 Midvale Road.

The RI was conducted to meet the requirements of the Washington State Model Toxics Control Act Cleanup Regulation (MTCA) for an RI Report for the Site per Section 350 of Chapter 173-340 of the Washington Administrative Code (WAC 173-340-350), and for releases from underground storage tanks (USTs) per WAC 173-340-450. This RI Report was prepared for submittal to the Washington State Department of Ecology (Ecology) under the Voluntary Cleanup Program (VCP) to obtain a No Further Action determination for the Site.

Data used to define and characterize the Site were collected during work conducted at the Site by previous consultants between 1990 and 1994, which included implementation of an interim remedial action in 1990 through 1991 (Interim Action). The Interim Action included the decommissioning of USTs and other underground structures, excavation of soil with concentrations of petroleum hydrocarbons exceeding MTCA Method A cleanup levels, and dewatering to facilitate excavation. Farallon has since collected sufficient data, to the extent practicable, to fully characterize the Site to complete the RI.

1.1 OBJECTIVE

The objective of the RI was to collect, develop, and evaluate sufficient information to characterize the nature and extent of hazardous substances at the Site to enable evaluation and demonstrate no further action is required.

1.2 REPORT ORGANIZATION

This RI Report summarizes the results of the prior investigations and Interim Action, and presents the results of the subsurface investigations conducted by Farallon. The report is organized into the following sections:

• Section 2, Site Description and Background, provides a summary of Site features, history, and geology and hydrogeology; previous environmental investigations and activities; and the regulatory status of the Site.



- Section 3, Remedial Investigation Scope of Work, describes the RI work elements, including field activities conducted at the Site during the RI.
- Section 4, Remedial Investigation Results, provides the results from the soil and groundwater sampling and monitoring conducted during the RI.
- Section 5, Conceptual Site Model, summarizes the conceptual site model, including confirmed and suspected source areas, constituents of potential concern (COPCs), media of concern, and contaminant fate and transport.
- Section 6, Conclusions, provides Farallon conclusions regarding the results from the sampling and monitoring conducted during the RI.
- Section 7, References, provides a list of the documents cited in this RI Report.
- **Section 8**, **Limitations**, presents Farallon's standard limitations associated with conducting the work described herein and preparing this report.



2.0 SITE DESCRIPTION AND BACKGROUND

This section provides a description of the Site and a summary of previous investigations. The documents relied upon for the following summary are cited below and listed in Section 7, References.

2.1 SITE DESCRIPTION AND SETTING

The Site is located in Sections 1 and 2, Township 9 North, Range 22 East and Sections 35 and 36, Township 10 North, Range 22 East in Sunnyside, Yakima County, Washington (Figure 1). The Property, which includes portions of the Site, is identified as Yakima County Parcel No. 221035-44033 and has a total area of 1.01 acres of undeveloped land (Yakima County Tax Assessor 2018). The intersection of the Midvale and Emerald Roads is proximate to the Property (Figure 2).

Land use in the vicinity of the Site primarily is a mix of agricultural fields, private residences, and trucking and farming equipment businesses. The Site is in Sunnyside, Washington, which consists primarily of commercial and retail businesses and residences. The population of Sunnyside is 16,411 people (United States Census Bureau 2016).

Site topography is relatively flat, sloping slightly down toward the south. Snipes Mountain is to the east and Harrison Hill is to the north of the Site. The Yakima River flows northwest to southeast approximately 6 miles from the Site (U.S. Geological Survey 2018).

Known utilities in the vicinity of the Site include:

- A City of Sunnyside stormwater line in the east-adjacent right-of-way along Midvale Road;
- A Port of Sunnyside stormwater line in the east-adjacent right-of-way along Midvale Road;
- A fiber optic line in the east-adjacent right-of-way along Midvale Road;
- A fiber optic line along the southern right-of-way on Emerald Road;
- Two natural gas lines in the south-adjacent right-of-way along Emerald Road;
- An electrical line near the sidewalk along Midvale Road;
- A water line near the sidewalk along the Midvale Road; and
- Many shallow irrigation lines.

2.2 SITE HISTORY

The Site formerly was developed with a gasoline service station and market. Three USTs were installed on December 31, 1964. Two USTs with a capacity of 1,100 gallons each were used for storage of leaded and unleaded gasoline products. The third UST with a capacity of 550 gallons, also used to store gasoline at the Site, did not pass a tank integrity test conducted on May 3, 1990, which triggered cleanup activities (Chen-Northern, Inc. [Chen-Northern] 1993b). Currently, the Site is undeveloped, although the subsurface groundwater infiltration and groundwater interceptor



trenches that were installed as part of the Interim Action cleanup activities remain on the Site. Further discussion of the previous environmental investigations and Interim Action cleanup activities conducted at the Site is provided in Section 2.4, Previous Environmental Investigations and Activities.

2.3 GEOLOGY AND HYDROGEOLOGY

A summary of the geologic and hydrogeologic conditions at and in the vicinity of the Site is provided below. Additional details on the geologic and hydrogeologic conditions encountered during the RI field investigations in 2015 and 2017 are provided in Section 4.1.

General discussion of the regional geology at the Site is available in the *Hydrogeologic Framework* of Sedimentary Deposits in Six Structural Basins, Yakima River Basin, Washington dated 2006, prepared by the U.S. Geological Survey (2006). The Site is located near the axis of the Wapato Syncline in the Yakima Fold Belt, a province that encompasses the Yakima River Basin. The Yakima Fold Belt is highly folded and faulted as a result of regional tectonic compression.

Surficial geology at this location consists of unconsolidated Quaternary flood and loess (wind) deposits that were formed through erosion of the Cascade Range and surrounding east-west-trending anticlinal ridges that surround the Site. Fluvial units generally comprise thick sequences of sand, gravel, and some finer material, including silt and clay. Loess deposits primarily are silt and clay and tend to be found in the southern and eastern portions of the valley (U.S. Geological Survey 2006).

Site subsurface lithology consists of brown silt to approximately 3 feet below ground surface (bgs), yellow to brown plastic silt from 3 to 8 feet bgs, and medium-grained sand with silt from 8 to 30 feet bgs (Chen-Northern 1993b). Groundwater is approximately 10 feet bgs at the Site and flows to the southeast (Chen-Northern 1993a). Stormwater runoff at the Site infiltrates into the ground. Some stormwater runoff reportedly travelled via overland flow into a former irrigation supply ditch along the eastern edge of the Site. The irrigation supply ditch was replaced with an underground pipeline and backfilled; however, Farallon was not able to locate information specifying when the irrigation supply ditch was filled.

City of Sunnyside water is supplied from the domestic supply wells owned by the City of Sunnyside. No public water-supply wells were identified within 1 mile of the Site (Ecology 2018).

The nearest surface water body is the Snipes Mountain Lateral irrigation canal approximately 4,450 feet west of the Site.

2.4 PREVIOUS ENVIRONMENTAL INVESTIGATIONS AND ACTIVITIES

This section describes investigations conducted by previous consultants at the Site. Additional information on the investigation procedures and results are provided in the referenced reports.

On April 25, 1990, Ecology received a call from Sunnyside Irrigation District regarding a possible sheen in an irrigation supply ditch at the intersection of the Midvale and Emerald Roads in Sunnyside, Washington. Ecology performed a Site visit and noted the sheen in the irrigation supply



ditch. Ecology notified Kelloggs Korner regarding a potential release of petroleum products and requested they perform a tank integrity test.

A 550-gallon regular gasoline UST at the Site did not pass a tank integrity test conducted on May 3, 1990. In 1990, three USTs, dispensers, and product lines were decommissioned and removed from the Site; an Interim Action excavation in the area of the former USTs was performed; and the gasoline service station building was demolished. In accordance with Notice of Violation No. DE 90-C160 (Ecology 1990), Mr. Arthur Leyendekker implemented an Interim Action cleanup at the Site commencing in 1990. Mr. Leyendekker passed away on August 13, 1991 and work continued under the direction of the Executor of the Estate of Arthur Leyendekker. Details of the Interim Action excavation and the amount of contaminated soil removed were not provided to Farallon. In addition, waste disposal documentation of the Interim Action excavation was not provided to Farallon.

Chen-Northern (1991) submitted a proposed action plan to Ecology on August 22, 1991 outlining a plan for installation of an interceptor trench, treatment of the impacted soil, and site characterization activities. The site characterization activities consisted of advancing 17 borings (B-1 through B-17) to depths of approximately 4.5 to 12.5 feet bgs to collect soil samples to assess soil conditions on September 20, 1991. No field screening results or olfactory data from soil sampling were available for the borings advanced by Chen-Northern. The borings were advanced in the area of the release of gasoline from the former UST on the southeastern portion of the Site identified during the Interim Action.

Total petroleum hydrocarbons as gasoline-range organics (GRO) and benzene, toluene, ethylbenzene, and xylenes (BTEX) were detected at concentrations exceeding MTCA Method A cleanup levels in borings B-2, B-5, B-9, B-13, B-16, and B-17 at depths ranging from 5.7 to 10.6 feet bgs. GRO was detected at concentrations of 580, 280, 860, and 240 milligrams per kilogram (mg/kg) in soil samples collected from borings B-2, B-5, B-9, and B-16, respectively, which exceed the MTCA Method A cleanup level (Figure 3; Table 1). Benzene was detected at concentrations of 0.73, 20 and 1.7, 1.39, and 0.055 mg/kg in soil samples collected from borings B-9, B-13, B-16, and B-17, respectively, which exceed the MTCA Method A cleanup level. Toluene and ethylbenzene were detected at concentrations of 170 and 33 mg/kg, respectively, in the soil sample collected from boring B-13 at a depth of 6.9 feet bgs, which exceeds the MTCA Method A cleanup level. Xylenes was detected at concentrations of 16.0, 33.0, and 240 and 10 mg/kg in the soil samples collected from borings B-5, B-9, and B-13, respectively, which exceed the MTCA Method A cleanup level. GRO and BTEX were not detected at concentrations exceeding laboratory practical quantitation limits (PQLs) in soil samples collected from borings B-1, B-3, B-4, B-6 through B-8, B-10 through B-12, B-14, and B-15.

Product recovery wells RW-1 through RW-5 and groundwater monitoring wells MW-1, MW-3, and MW-4 were installed at the Site by Chen-Northern in 1991 or 1992. Farallon was not provided with documentation of the installation, boring logs, or well construction details for these wells. Huntingdon Engineering and Environmental (formerly Chen-Northern) performed three quarterly groundwater monitoring events on March 18, June 9, and September 8, 1994. GRO and BTEX were detected at concentrations exceeding MTCA Method A cleanup levels in samples collected



from monitoring well MW-3 during all three sampling events. GRO and benzene were detected at concentrations exceeding MTCA Method A cleanup levels in samples collected from recovery well RW-3 during all three sampling events. Toluene, ethylbenzene, and xylenes were detected at concentrations exceeding the laboratory PQL but less than MTCA Method A cleanup levels in recovery well RW-3. Benzene was detected at a concentration of 8 micrograms per liter (µg/l) in the groundwater sample collected from recovery well RW-1 on September 8, 1994. GRO, toluene, ethylbenzene, and xylenes were reported non-detect at the laboratory PQL in samples collected from recovery well RW-1 during all three sampling events. GRO and BTEX were not detected at concentrations exceeding laboratory PQLs, or at concentrations exceeding laboratory PQLs but less than MTCA Method A cleanup levels, in samples collected from recovery wells RW-2, RW-4, and RW-5 and monitoring wells MW-1 and MW-4 during all three sampling events (Huntingdon Engineering and Environmental 1994a, 1994b, 1994c).

According to available records, groundwater monitoring and cleanup activities at the Site ceased in approximately late 1994.

2.5 REGULATORY STATUS

The Ecology (2018) Toxics Cleanup Program maintains environmental information pertaining to properties with known environmental concerns, and provides such information in a number of lists and reports. The Cleanup Site Details report indicated that the Site identification was "Kelloggs Korner," with Cleanup Site Identification No. 4921 and Facility Identification No. 473. A release affecting groundwater and soil was reported on April 25, 1990, and Mr. Bob Swackhamer was assigned as the Ecology Project Manager for the Site. The Cleanup Site Details report indicated that the Site is enrolled in the VCP and has been assigned VCP Identification No. CE0441. According to the Cleanup Site Details report, the Site status is listed as "Cleanup Started." The Site was enrolled in the VCP on April 26, 2016. The current Ecology Project Manager is Ms. Jennifer Lind (Ecology 2018).

The Ecology (2018) Regulated USTs and Inactive Facilities List indicated that three USTs were at the Site: one unleaded gasoline, one leaded gasoline, and one unknown use UST. The Regulated USTs and Inactive Facilities List stated that UST decommissioning work has been performed on two gasoline USTs and one unknown use UST. The Ecology (2018) Leaking UST List identified historical Release Identification No. 1072 and Leaking Underground Storage Tank Identification No. 48 for the Site, and indicated that the cleanup of soil and groundwater begun on August 21, 1996 was the result of a release at the Site.

In an opinion letter dated August 15, 2016, Ecology (2016) stated that additional work needs to be completed at the Site. The items that need to be completed are additional characterization, specifically on the properties south and east of the Site; a terrestrial ecological evaluation (TEE); establishment of cleanup standards; and selection of a cleanup action.



3.0 REMEDIAL INVESTIGATION SCOPE OF WORK

The purpose of the RI was to collect the data necessary to adequately characterize the Site for developing and evaluating technically feasible cleanup action alternatives. The approach for the RI included conducting two phases of field investigation to investigate current soil and groundwater conditions on and off the Property.

The RI field program was divided into four work elements: regulatory file review, reconnaissance sampling, monitoring well installation and development, and groundwater monitoring. A summary of the scope of work performed for each of these work elements is provided below.

3.1 REGULATORY FILE REVIEW

This work element included requesting and reviewing Ecology files for the Site. The regulatory files for the Site were reviewed prior to implementing subsequent work elements to assess the current status of the Site and the nature and extent of known contamination on the Site. Information from the regulatory file review was used to identify the sampling locations and parameters for the field work elements.

3.2 SOIL AND RECONNAISSANCE GROUNDWATER SAMPLING

The scope of work for the subsurface investigation performed by Farallon on November 9 and 10, 2015 was based on Farallon's review of previous investigations at the Site and the results of the groundwater sampling event that was performed on May 22, 2015, as described in Section 3.4, Groundwater Monitoring. The scope of work for the subsurface investigation included the advancement of borings FB-06 through FB-15 to a maximum depth of 20 feet bgs to assess soil and/or groundwater quality. The borings were advanced in the area of the release of gasoline from the UST on the southeastern portion of the Site. The boring locations are shown on Figure 2. Prior to conducting the field work, Farallon prepared a Site-specific Health and Safety Plan as required by Part 1910 of Title 29 of the Code of Federal Regulations (1910 CFR 29) and by WAC 296-62, and conducted public and private utility locates to clear the boring locations of underground utilities. A summary of the subsurface investigation field program is provided below.

3.2.1 Soil Sampling

Soil samples were collected continuously during the advancement of borings FB-06 through FB-15 by ESN Northwest of Olympia, Washington using a direct-push drill rig equipped with macrocore samplers (Figure 2). A Farallon Geologist observed subsurface conditions and retained soil samples from selected intervals for laboratory analysis based on field indications of potential contamination. Soil samples collected from borings FB-06 through FB-15 were collected and preserved in accordance with U.S. Environmental Protection Agency (EPA) Method 5035A. The soil samples were placed on ice in a cooler and delivered under standard chain-of-custody protocols to OnSite Environmental Inc. of Redmond, Washington. The information recorded on the boring logs included soil types encountered, visual and olfactory evidence of potential



contamination, and volatile organic vapor concentrations as measured using a photoionization detector. The boring logs are provided in Attachment A.

3.2.2 Reconnaissance Groundwater Sampling

Groundwater was purged using a peristaltic pump from a temporary 5-foot polyvinyl chloride screen in borings FB-06 through FB-15 until the groundwater was clear in appearance. Reconnaissance groundwater samples were collected and transferred directly into laboratory-prepared sample containers, placed on ice in a cooler, and delivered under standard chain-of-custody protocols to OnSite Environmental Inc.

3.2.3 Laboratory Analysis

Select soil and reconnaissance groundwater samples collected from borings FB-06 through FB-15 were analyzed for GRO by Northwest Method NWTPH-Gx, for BTEX by EPA Methods 8021B or 8260C, for 1,2-dibromethane (EDB) by EPA Methods 8260C or 8011, for 1,2-dichloroethane (EDC) by EPA Method 8260C, and/or for methyl tertiary-butyl ether (MTBE) by EPA Method 8260C.

3.3 MONITORING WELL INSTALLATION

Farallon performed a subsurface investigation on October 16 and 17, 2017. The scope of work for the subsurface investigation included the advancement of borings FMW-1 through FMW-5. The final boring locations were slightly relocated from the proposed locations due to presence of subsurface utilities (Figure 2). Boring FMW-1 was advanced in an agricultural field south of the Property, borings FMW-2 and FMW-3 were advanced in the agricultural field east of the Property, and borings FMW-4 and FMW-5 were advanced in the gravel lot southeast of the Property. Prior to conducting the field work, Farallon prepared a Site-specific Health and Safety Plan as required by 1910 CFR 29 and by WAC 296-62, and conducted public and private utility locates to clear the boring locations of underground utilities. A summary of the subsurface investigation field program is provided below.

3.3.1 Soil Sampling

Soil samples were collected continuously during the advancement of borings FMW-1 through FWM-5 by Holt Services of Edgewood, Washington using a direct-push drill rig equipped with macrocore samplers to a maximum depth of 15 feet bgs (Figure 2). A Farallon Geologist observed subsurface conditions and retained soil samples from selected intervals for laboratory analysis based on field indications of potential contamination. Soil samples collected from borings FMW-1 through FMW-5 were collected and preserved in accordance with EPA Method 5035A. The soil samples were placed on ice in a cooler and delivered under standard chain-of-custody protocols to OnSite Environmental Inc. The information recorded on the boring logs included soil types encountered, visual and olfactory evidence of potential contamination, and volatile organic vapor concentrations as measured using a photoionization detector. The boring logs are provided in Attachment A.



3.3.2 Monitoring Well Installation

Borings FMW-1 through FMW-5 were completed as groundwater monitoring wells. Monitoring wells FMW-1 through FMW-5 were constructed in accordance with the Minimum Standards for Construction and Maintenance of Wells, as established in WAC 173-160. The wells were constructed of 2-inch-diameter polyvinyl chloride casings and screens with prepacked 10-20 sand screened sections. Monitoring wells FMW-1 and FMW-2 were constructed with a 0.010-inch slotted screen at a depth of 4 to 14 feet bgs. Monitoring wells FMW-3 through FMW-5 were constructed with a 0.010-inch slotted screen at a depth of 5 to 15 feet bgs. The borehole annulus surrounding each well screen was filled with a filter pack consisting of clean 10-20 sand, and extended from the base of the screen to approximately 1 foot above the screened interval. A bentonite seal was placed from the top of the sand filter pack to a depth of approximately 2 to 3 feet bgs. A 2-foot-thick concrete surface seal was placed around the well from the top of the bentonite to approximately the ground surface surrounding the well monument. Monitoring wells FMW-1 through FMW-3 were completed with 3-foot stick-up steel monuments above surface grade. Monitoring wells FMW-4 and FMW-5 were completed with flush-mounted traffic-rated vaults. Additional well construction information is provided on the boring logs in Attachment A. Immediately following installation, monitoring wells FMW-1 through FMW-5 were developed by purging approximately 10 gallons of groundwater from each monitoring well.

3.3.3 Laboratory Analysis

Select soil samples collected from borings FMW-1 through FMW-5 were analyzed for GRO and BTEX by methods described above.

3.4 GROUNDWATER MONITORING

Farallon performed a groundwater monitoring event at the Site on May 21, 2015, which included depth-to-water measurements and collection of groundwater samples from monitoring wells MW-1 and MW-4 and recovery wells RW-1, RW-4, and RW-5 (Figure 2). Depth to groundwater ranged from 8.96 to 11.07 feet bgs in the monitoring and recovery wells prior to the start of groundwater sampling activities. Water-quality parameters, including temperature, pH, conductivity, dissolved oxygen, turbidity, and oxygen-reduction potential, were monitored during purging using a portable water-quality meter. After field parameters had stabilized, Farallon collected a groundwater sample from each well using low-flow purging and sampling methods. The groundwater samples were collected in laboratory-supplied sample containers, placed on ice in a cooler, and delivered under standard chain-of-custody protocols to OnSite Environmental, Inc. for laboratory analysis for GRO, total petroleum hydrocarbons as diesel-range organics (DRO) and as oil-range organics (ORO), BTEX, EDB, EDC, and MTBE by the methods described above.

Farallon performed a groundwater monitoring event at the Site on October 25, 2017, which included depth-to-water measurements and collection of groundwater samples from monitoring wells FMW-1 through FMW-5 (Figure 2). Depth to groundwater ranged from 12.10 to 13.22 feet below the top of the well casings in the monitoring wells prior to the start of groundwater sampling activities. Water-quality parameters, including temperature, pH, conductivity, dissolved oxygen, turbidity, and oxygen-reduction potential, were monitored during purging using a portable water-



quality meter. After field parameters had stabilized, Farallon collected a groundwater sample from each well using low-flow purging and sampling methods. The groundwater samples were collected in laboratory-supplied sample containers, placed on ice in a cooler, and delivered under standard chain-of-custody protocols to OnSite Environmental, Inc. for laboratory analysis for GRO and BTEX by the methods described above.



4.0 REMEDIAL INVESTIGATION RESULTS

The results from the RI soil and groundwater sampling are presented below.

4.1 GEOLOGIC AND HYDROGEOLOGIC CONDITIONS

The stratigraphy encountered in the borings advanced at the Site by Farallon in November 2015 primarily consisted of silt, sandy silt with layers of silty sand and poorly graded gravel (likely from the Interim Action excavation) to the total depth explored of approximately 20 feet bgs. The stratigraphy encountered in the borings advanced at the Site by Farallon in October 2017 consisted of silt or silty sand to a maximum depth of 15 feet bgs, which was similar to the lithology on the Property. Geologic cross-sections of the Site are provided on Figures 4 and 5. The cross-section locations are shown on Figure 2. Boring logs are provided in Appendix A.

Depth to groundwater was measured at monitoring wells FMW-1 through FMW-5 on October 24, 2017 (Table 2). Depth to groundwater ranged from 12.10 feet bgs in monitoring well FMW-1 to 13.22 feet bgs in monitoring well FMW-3. Groundwater elevations are calculated relative to an arbitrary Property-specific elevation datum of 100.0 feet at the reference point established at the Site. Based on groundwater elevations calculated using depth to water measured in monitoring wells on the Site, the interpreted groundwater flow direction beneath the Site is to the south-southwest at an estimated gradient of 0.015 foot per foot (Figure 6; Table 2).

4.2 SOIL ANALYTICAL RESULTS

Results for the subsurface investigations performed in November 2015 and October 2017 are summarized below and included on Figure 3 and in Table 1. Laboratory analytical reports are provided in Appendix B.

4.2.1 Farallon 2015 Subsurface Investigation

Borings FB-6 through FB-15 were advanced to a maximum depth of 20.0 feet bgs on November 9 and 10, 2015. Field evidence, including petroleum odor and elevated photoionization detector readings, indicated the potential presence of COPCs in soil at depths ranging from approximately 10 to 12 feet bgs in borings FB-08, FB-09, and FB-14.

GRO was detected at a concentration of 31 mg/kg in the soil sample collected from boring FB-07 at a depth of 11.5 feet bgs, which is less than the MTCA Method A cleanup level. GRO was not detected at concentrations exceeding laboratory PQLs in the other soil samples analyzed from borings FB-06 through FB-15 (Figure 3; Table 1).

Xylenes were detected at a concentration of 0.13 mg/kg in the soil sample collected from boring FB-07 at a depth of 11.5 feet bgs, which is less than the MTCA Method A cleanup level. Xylenes were not detected at concentrations exceeding laboratory PQLs in the other soil samples analyzed from borings FB-06 through FB-15 (Figure 3; Table 1).



Benzene, toluene, and ethylbenzene were not detected at concentrations exceeding laboratory PQLs in the soil samples analyzed from borings FB-06 through FB-15 (Figure 3; Table 1).

EDB, EDC, and MTBE were not detected at concentrations exceeding laboratory PQLs in the soil samples analyzed from borings FB-08, FB-09, and FB-14 (Figure 3; Table 1).

4.2.2 Farallon 2017 Subsurface Investigation

Borings FMW-1 through FMW-5 were advanced to a maximum depth of 15 feet bgs on October 16 and 17, 2017. Field screening evidence and photoionization detector readings from soil samples did not indicate the potential presence of COPCs in the soil.

GRO and BTEX were not detected at concentrations exceeding laboratory PQLs in soil samples collected from borings FMW-1 through FMW-5 at the Site (Figure 3; Table 1).

4.3 GROUNDWATER ANALYTICAL RESULTS

Results for the subsurface investigations performed in November 2015 and October 2017 are summarized below and included on Figure 7 and in Table 3. Laboratory analytical reports are provided in Appendix B.

4.3.1 Farallon May 2015 Groundwater Monitoring Event

Farallon performed a groundwater monitoring event on May 22, 2015. DRO, ORO, GRO, BTEX, EDB, EDC, and MTBE were not detected at concentrations exceeding laboratory PQLs in groundwater samples collected from monitoring wells MW-1 and MW-4 and recovery wells RW-1, RW-4, and RW-5 (Figure 7; Table 3).

4.3.2 Farallon November 2015 Reconnaissance Groundwater Monitoring Event

Farallon collected reconnaissance groundwater samples on November 9 and 10, 2015 from borings FB-06 through FB-15. Ethylbenzene and xylenes were detected at concentrations of 0.24 and 0.55 µg/l, respectively, in the reconnaissance groundwater sample collected from boring FB-08, which do not exceed MTCA Method A cleanup levels (Figure 7; Table 3). Ethylbenzene and xylenes were not detected at concentrations exceeding laboratory PQLs in the reconnaissance groundwater samples analyzed from borings FB-06, FB-07, and FB-09 through FB-15 (Figure 7; Table 3).

GRO, benzene, and toluene were not detected at concentrations exceeding laboratory PQLs in the reconnaissance groundwater samples analyzed from borings FB-06 through FB-15 (Figure 7; Table 3).

EDB, EDC, and MTBE were not detected at concentrations exceeding laboratory PQLs in the reconnaissance groundwater samples analyzed from borings FB-08, FB-09, and FB-14 (Table 4).



4.3.3 Farallon October 2017 Groundwater Monitoring Event

Farallon performed a groundwater monitoring event on October 25, 2017. GRO and BTEX were not detected at concentrations exceeding laboratory PQLs in groundwater samples collected from monitoring wells FMW-1 through FMW-5 (Figure 7; Table 3).



5.0 CONCEPTUAL SITE MODEL

The conceptual site model has been developed to evaluate, define, or document the following elements in accordance with WAC 173-340-200:

- Confirmed and suspected source areas;
- COPCs:
- Media of concern;
- Nature and extent of contamination in soil and/or groundwater at concentrations exceeding MTCA Method A cleanup levels;
- Contaminant fate and transport of COPCs;
- Potential exposure pathways and scenarios; and
- Cleanup standards.

These elements are described for the Site in the following sections.

5.1 CONFIRMED AND SUSPECTED SOURCE AREAS

Releases from the former UST associated with the former gasoline service station are a confirmed source of COPCs exceeding MTCA Method A cleanup levels in soil and groundwater at the Site. The three USTs, product piping, and dispensers were decommissioned and removed in 1990 during an Interim Action.

5.2 CONSTITUENTS OF POTENTIAL CONCERN

COPCs are defined as the hazardous substances that have been detected at concentrations exceeding MTCA Method A cleanup levels. The COPCs for the Site are GRO and BTEX.

5.3 MEDIA OF CONCERN

The media of potential concern for the Site are identified as soil, groundwater, and surface water.

Soil was retained as a medium of concern due to the presence of the COPCs GRO and BTEX at concentrations that exceeded MTCA Method A cleanup levels in soil samples collected from borings B-2, B-5, B-9, B-13, B-16, and B-17 in 1991.

Groundwater was retained as a medium of concern due to the presence of the COPCs GRO and BTEX that exceeded MTCA Method A cleanup levels in groundwater samples collected from recovery wells RW-1 and RW-3 and monitoring well MW-3 in 1994.

Surface water formerly was a medium of concern due to observation of a visible sheen of petroleum products on the irrigation supply ditch on the eastern side of Midvale Road in 1990. The irrigation supply ditch no longer exists and was replaced by an underground stormwater



pipeline installed in the same location. The date of installation of the pipeline is unknown. All current surface water features are at a sufficient distance from the Site so that surface water or sediments are not retained as a media of concern.

5.4 NATURE AND EXTENT OF CONTAMINATION

Based on the analytical results for soil and groundwater samples analyzed during the 2015 and 2017 subsurface investigations, the nature and extent of soil and groundwater contamination have been sufficiently characterized to support the recommendation that no further cleanup for the Site is warranted.

5.4.1 Soil

The Interim Action completed in 1990 removed soil containing COPCs at concentrations exceeding MTCA cleanup levels from the source area. Analytical results for soil samples collected east and south of the Interim Action excavation area at depths ranging from 5.5 to 10.5 feet bgs confirmed that elevated concentrations of COPCs in soil remained in 1991. Based on the results of the 2015 subsurface investigation, borings FB-06 through FB-15 were installed in the area of concern containing soil contamination that exceeded MTCA Method A cleanup levels in 1991, and the investigation results demonstrate that soil is no longer a medium of concern. Analytical results for soil samples collected in the 2017 subsurface investigation, which was performed on adjacent properties where a sheen was noted in an irrigation supply ditch, show that soil on the adjacent properties is no longer a medium of concern. Analytical results for soil samples collected from the Site at depths ranging from approximately 7.5 to 18.0 feet bgs in the 2015 and 2017 subsurface investigations demonstrated that COPCs were not detected at concentrations exceeding laboratory PQLs in soil.

5.4.2 Groundwater

In 1994, COPCs for groundwater were detected at concentrations exceeding MTCA Method A cleanup levels in groundwater samples collected from recovery wells RW-1 and RW-3 and monitoring well MW-3 (Figure 7; Table 3). COPCs were not detected at concentrations exceeding laboratory PQLs in the reconnaissance groundwater samples collected from borings FB-06 through FB-15 in 2015, which were collected from locations that encircled and were within the Interim Action excavation area. Groundwater monitoring events in 2015 and 2017 demonstrated that COPCs are no longer present in groundwater at the Site, as no analytes were detected at concentrations exceeding laboratory PQLs in samples analyzed. Groundwater is no longer a medium of concern at the Site.

5.4.3 Surface Water

Surface water was a medium concern at the property east-adjacent to the Site, but the irrigation supply ditch has been removed and backfilled.

5.5 CONTAMINANT FATE AND TRANSPORT

Results of the Interim Action confirmed historical releases of COPCs from the source area affected soil on the Site to a depth of at least 10.6 feet bgs in the areas of the three USTs removed during the Interim Action. Previous investigation data suggest that COPCs migrated from soil to shallow



groundwater on and off the Property to the south and east beneath the paved road surface and agricultural fields. In 1994, GRO and BTEX were detected at concentrations exceeding MTCA Method A cleanup levels in recovery well RW-3 and monitoring well MW-3 off the Property. Recent soil and groundwater investigations performed in 2015 and 2017 show that COPCs are no longer present at concentrations exceeding MTCA Method A cleanup levels in Site media.

5.6 POTENTIAL EXPOSURE PATHWAYS

This section presents the assessment and conclusions pertaining to possible exposure pathways at the Site. The two types of possible exposure risks associated with the presence of COPCs at the Site are human health risk and terrestrial ecological risk. This section also identifies potential exposure scenarios.

A qualitative evaluation of potential exposure pathways was conducted for the RI to assess whether exposure pathways are potentially complete from the source area to human receptors.

5.6.1 Soil and Groundwater

The human health risk exposure pathways related to COPCs in soil and groundwater are not a concern due to COPCs not being detected at concentrations exceeding laboratory PQLs in soil and groundwater samples analyzed during the 2015 and 2017 subsurface investigations.

5.6.2 Terrestrial Ecological Evaluation Results

A TEE is required by WAC 173-340-7490 at any site where there has been a release of a hazardous substance to soil. 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.

A simplified TEE was conducted in accordance with WAC 173-340-7492 and no further evaluation was warranted based on the following analyses and conclusions:

- Exposure Analysis: WAC 173-340-7492(2)(a) Area of soil contamination at the Site is not more than 350 square feet;
- Pathway Analysis: WAC 173-340-7492(2)(b) No potential exposure pathways from soil contamination to ecological receptors; and
- 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.

The TEE results are provided in Appendix C. No further consideration of ecological impacts is required under MTCA.



5.7 CLEANUP STANDARDS

As defined in WAC 173-340-700, cleanup standards include establishing 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 to be protective of human health and the environment in accordance with WAC 173-340-700 through 173-340-740.

5.7.1 Cleanup Levels

The cleanup levels are the concentrations of COPCs that are to be met for each medium of concern at the points of compliance defined for the Site. The preliminary cleanup levels for COPCs in soil and groundwater are presented below.

5.7.1.1 Soil

The preliminary cleanup levels for soil at the Site are the MTCA Method A soil cleanup levels for unrestricted land use. The preliminary cleanup levels for COPCs in soil are:

- o 30 mg/kg for GRO when benzene is present;
- o 100 mg/kg for GRO when benzene is not present;
- o 0.03 mg/kg for benzene;
- o 7 mg/kg for toluene;
- o 6 mg/kg for ethylbenzene; and
- o 9 mg/kg for xylenes.

5.7.1.2 Groundwater

The preliminary cleanup levels for groundwater at the Site are the MTCA Method A preliminary cleanup levels for groundwater. The preliminary cleanup levels for COPCs in groundwater are:

- 0 800 μg/l for GRO when benzene is present;
- 0 1,000 μg/l for GRO when benzene is not present;
- o $5 \mu g/l$ for benzene;
- o $1,000 \mu g/l$ for toluene;
- o 700 μg/l for ethylbenzene; and
- o $1,000 \mu g/l$ for xylenes.

5.7.2 Points of Compliance

The points of compliance are the locations at which the preliminary cleanup levels for COPCs in each medium of concern must be attained to meet the requirements of MTCA and support the issuance of a No Further Action determination for the Site from Ecology. The points of compliance for the Site were established in accordance with WAC 173-340-740(6) for soil and groundwater.



5.7.2.1 Soil

The standard point of compliance for soil is defined as all soil at the Site where concentrations of COPCs exceeding MTCA Method A cleanup levels have been detected in in-situ soil samples.

5.7.2.2 Groundwater

The standard point of compliance for groundwater is defined as the uppermost level of the saturated zone extending vertically to the lowest depth that potentially could be impacted by COPCs throughout the Site. This groundwater interval consists of the shallow groundwater-bearing zone throughout the Site.



6.0 CONCLUSIONS

This RI Report has provided sufficient information to document that the RI for Site has met the requirements of WAC 173-340-350 and is complete. The RI also documents that components of a feasibility study are not required to be completed as the final cleanup action has been completed. Contamination associated with the former gasoline service station on the Property is no longer present on the Site. An Interim Action removed contamination from the source area in 1991. Subsurface investigations performed in 2015 and 2017 demonstrated that GRO, BTEX, and fuel additives EDB, EDC, and MTBE were reported at concentrations less than MTCA Method A cleanup levels in all soil and groundwater samples analyzed.

Soil samples were collected in 2015 and 2017 from the former Interim Action area, along the border of the excavation and the Property to the south and east, and on adjacent properties. GRO and BTEX were not detected at concentrations exceeding laboratory PQLs in soil and groundwater samples collected in 2015 and 2017. The analytical data demonstrate that COPCs are no longer present at concentrations exceeding MTCA Method A cleanup levels on the Site. Results for the 2017 subsurface investigation have demonstrated that COPCs are not present at the properties east-, south-adjacent of the Property.

Based on the results of the subsurface investigations, it is Farallon's opinion that conditions at the Site are protective of human health and the environment and no further action is necessary to proceed with regulatory closure of the Site. Farallon requests that a No Further Action determination be issued by Ecology for the Site.



7.0 REFERENCES

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8.0 LIMITATIONS

8.1 GENERAL LIMITATIONS

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

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

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 the Estate of Arthur Leyendekker, and currently accepted industry standards. No other warranties, representations, or certifications are made.

8.2 LIMITATION ON RELIANCE BY THIRD PARTIES

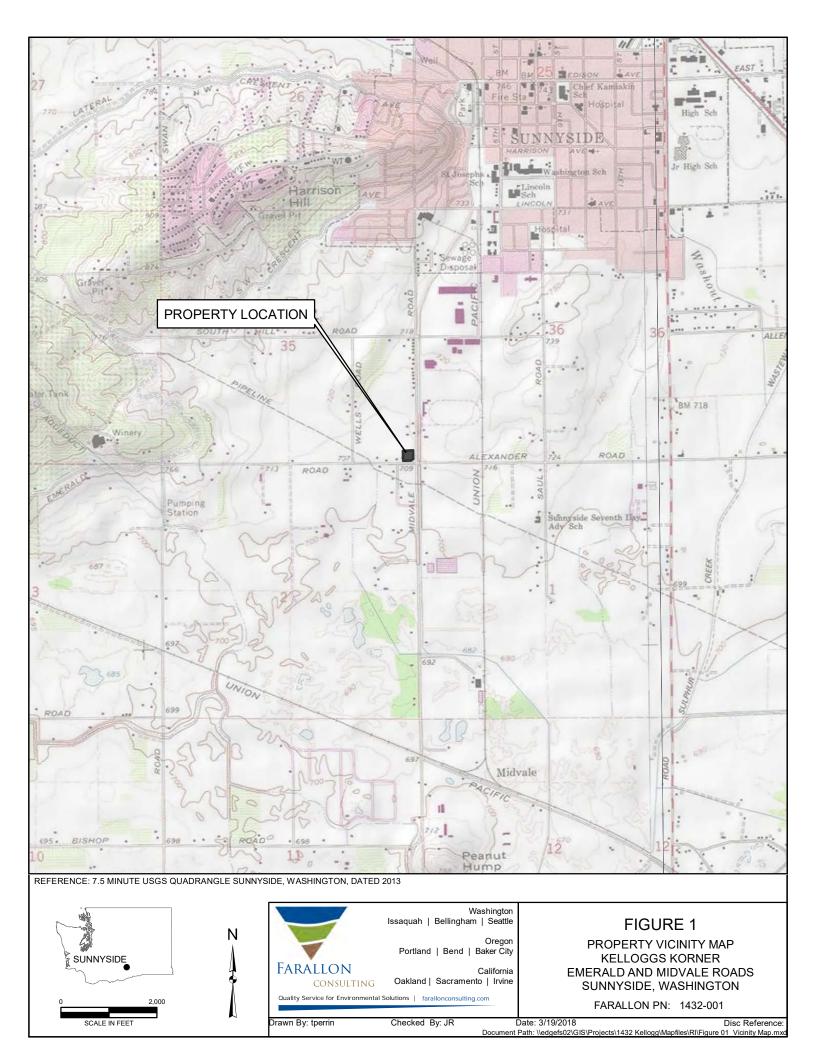
Reliance by third parties is prohibited. This report/assessment has been prepared for the exclusive use of the Estate of Arthur Leyendekker to address the unique needs of the Estate of Arthur Leyendekker at Kelloggs Korner at a specific point in time. Ecology is recognized as an intended user of this report/assessment, subject to the same limitations as the Estate of Arthur Leyendekker.

This is not a general grant of reliance. No one other than the Estate of Arthur Leyendekker 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

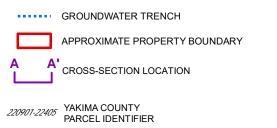
REMEDIAL INVESTIGATION REPORT Kelloggs Korner Midvale and Emerald Roads Sunnyside, Washington

Farallon PN: 1432-001





- RECOVERY WELL (CHEN-NORTHERN INC., 1992)
- MONITORING WELL HISTORICAL (CHEN-NORTHERN INC., 1991)
- RECOVERY WELL HISTORICAL (CHEN-NORTHERN INC., 1992)
- BORING (FARALLON, 2015)
- BORING (CHEN-NORTHERN INC., 1991)





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Portland | Bend | Baker City

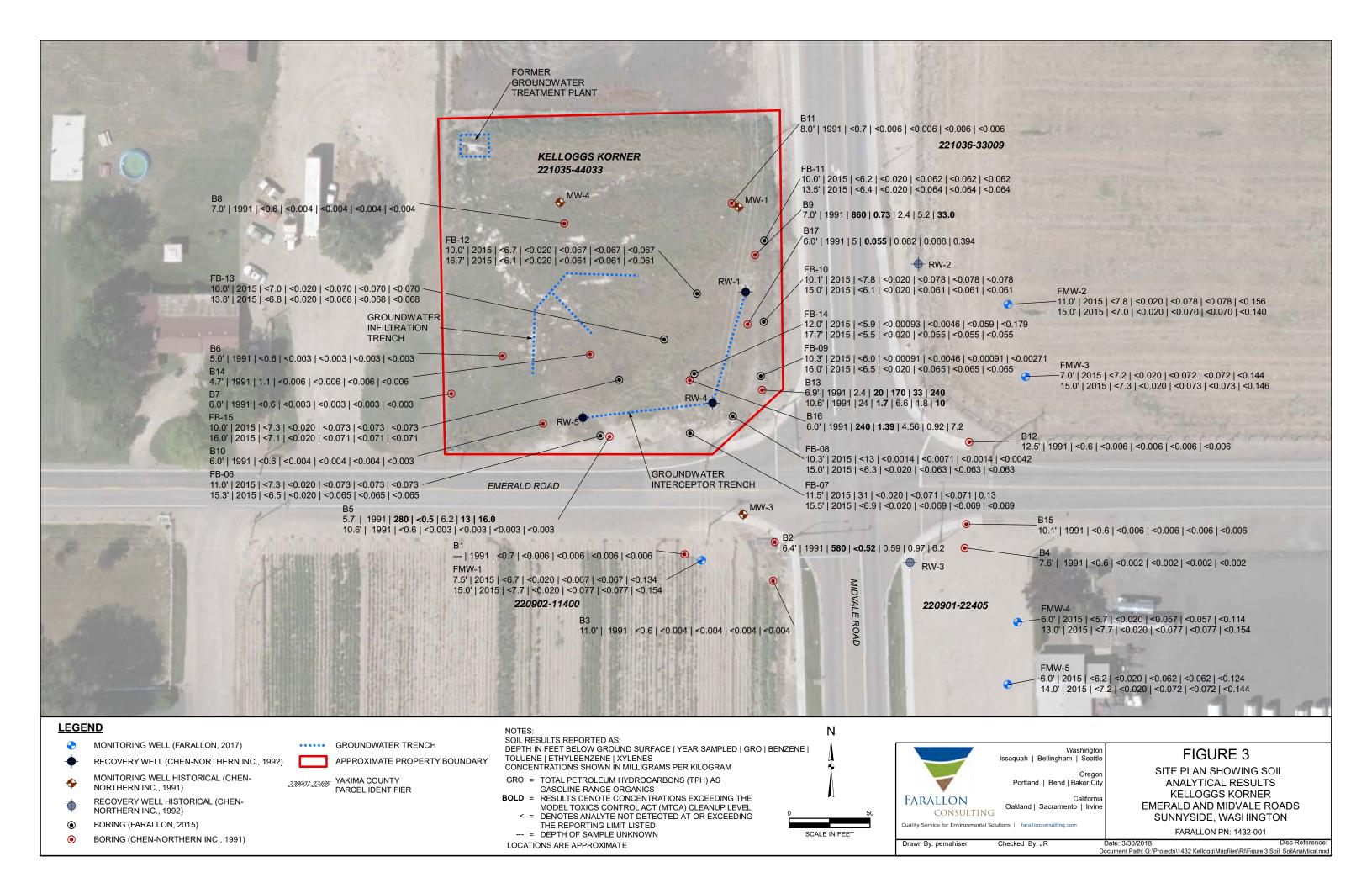
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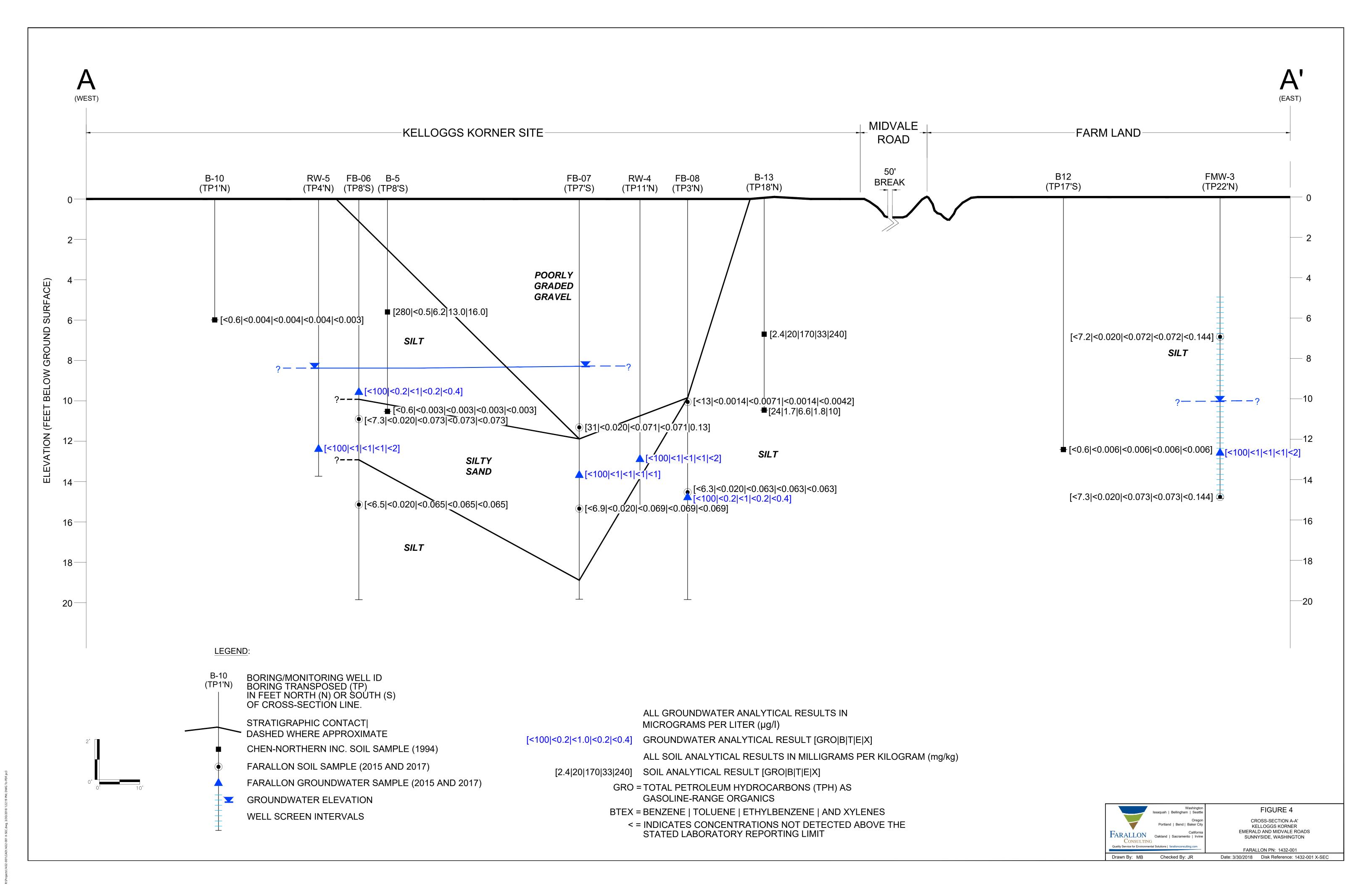
SITE PLAN KELLOGGS KORNER EMERALD AND MIDVALE ROADS SUNNYSIDE, WASHINGTON

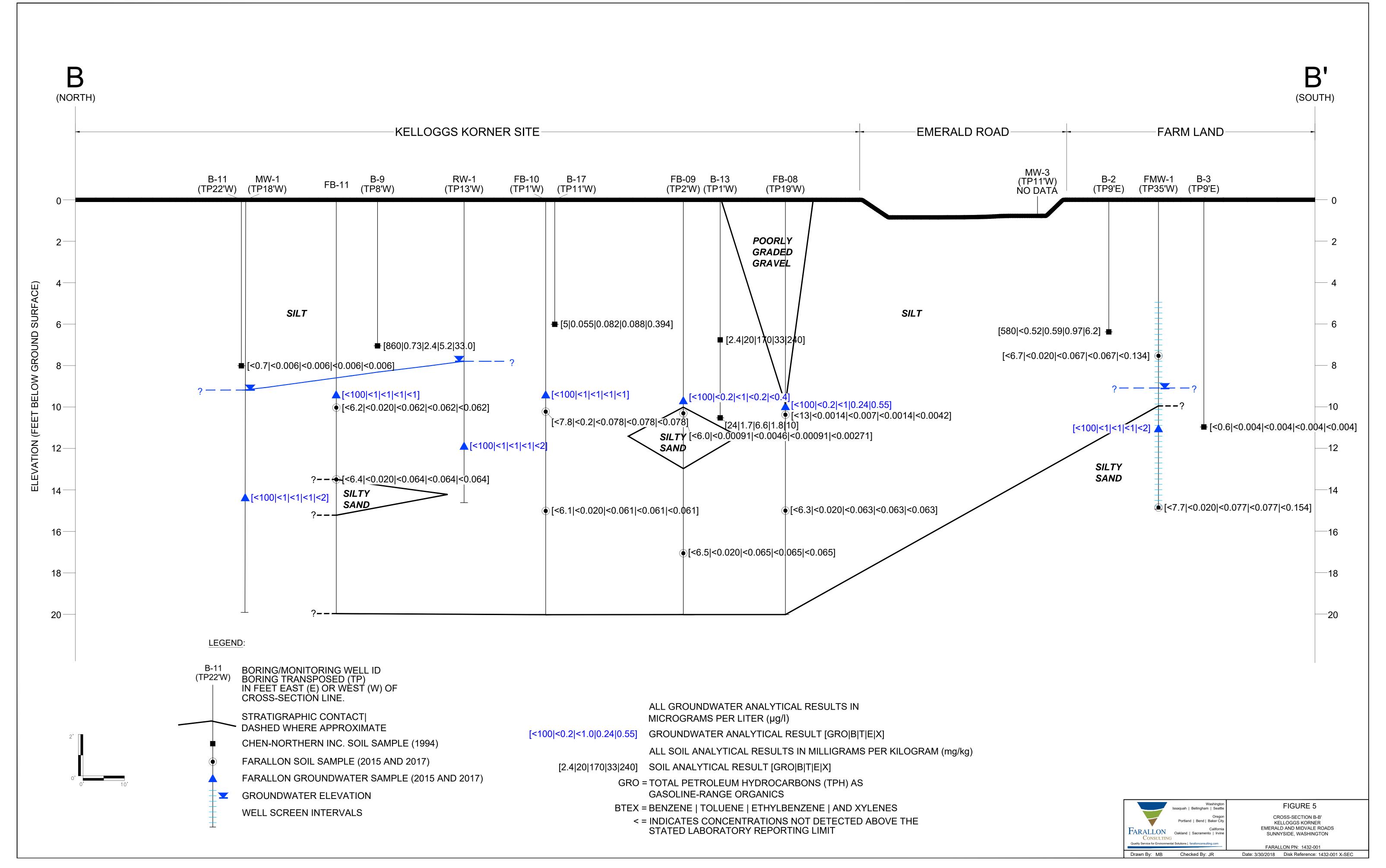
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- RECOVERY WELL (CHEN-NORTHERN INC., 1992)
- MONITORING WELL HISTORICAL (CHEN-NORTHERN INC., 1991)
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RECOVERY WELL HISTORICAL (CHEN-NORTHERN INC., 1992) BORING (FARALLON, 2015) BORING (CHEN-NORTHERN INC., 1991) GROUNDWATER TRENCH

220901-22405 YAKIMA COUNTY PARCEL IDENTIFIER

GROUNDWATER ELEVATION (OCTOBER 23, 2017)

APPROXIMATE GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) APPROXIMATE DIRECTION OF

GROUNDWATER FLOW

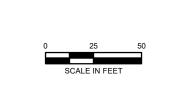




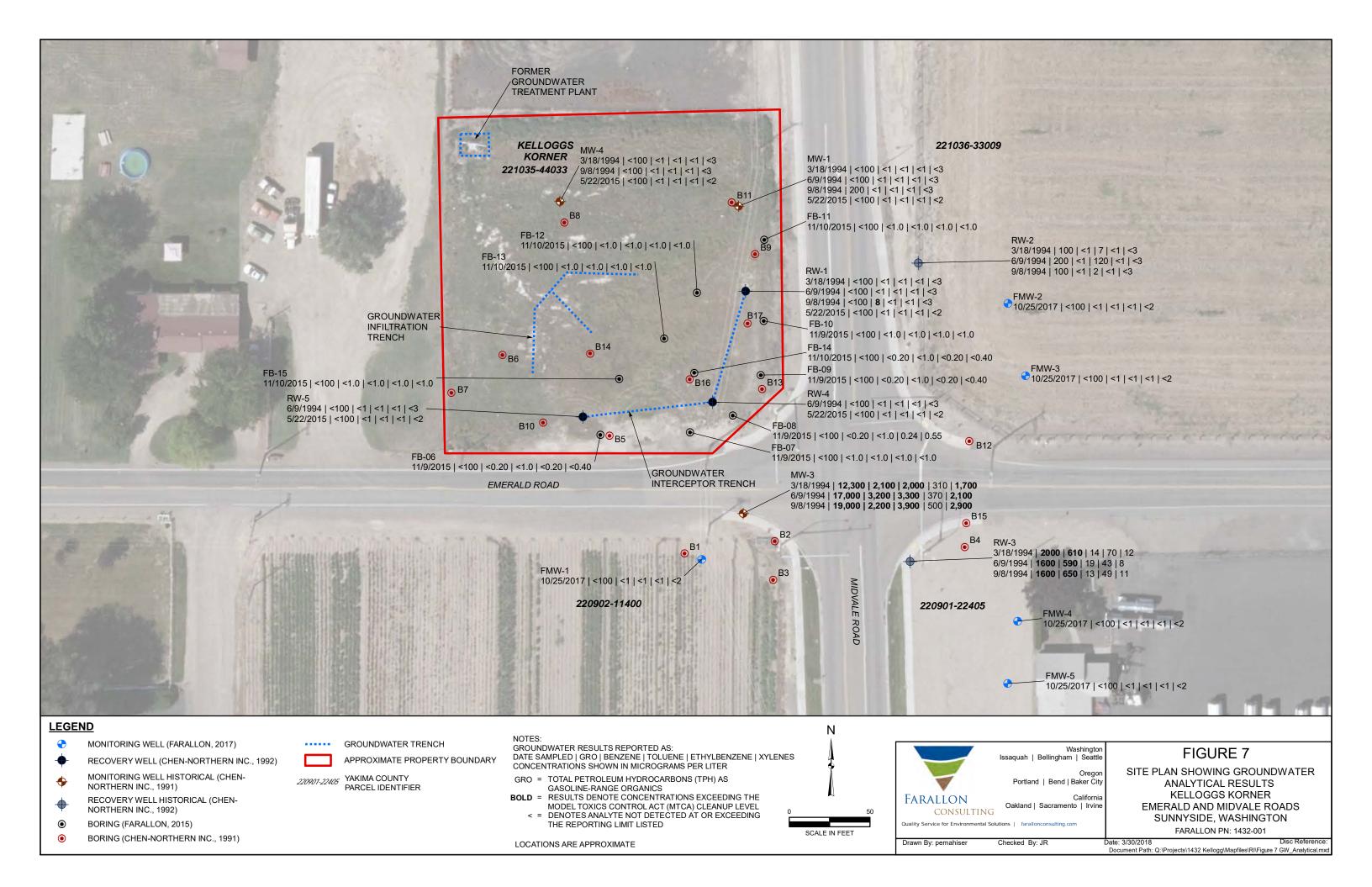
FIGURE 6

GROUNDWATER ELEVATION CONTOURS OCTOBER 23, 2017 KELLOGGS KÖRNER EMERALD AND MIDVALE ROADS SUNNYSIDE, WASHINGTON

FARALLON PN: 1432-001

Date: 3/30/2018 Disc Reference

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TABLES

REMEDIAL INVESTIGATION REPORT Kelloggs Korner Midvale and Emerald Roads Sunnyside, Washington

Farallon PN: 1432-001

Table 1 Soil Analytical Results - Petroleum Hydrocarbons and VOCs Kelloggs Korner

Sunnyside, Washington Farallon PN: 1432-001

				Sample	Analytical Results (milligrams per kilogram)								
Sample				Depth									
Location	Sample Identification	Sampled By	Sample Date	(feet) ¹	GRO^2	Benzene ³	Toluene ³	Ethylbenzene ³	Xylenes ³	EDB^4	EDC ⁴	MTBE ⁴	
Boring #1	191-1997-1				< 0.7	< 0.006	< 0.006	< 0.006	< 0.006	NA	NA	NA	
Boring #2	191-1997-2 Boring #2			6.4	580	< 0.52	0.59	0.97	6.2	NA	NA	NA	
Boring #3	191-1997-3 Boring #3			11.0	< 0.6	< 0.004	< 0.004	< 0.004	< 0.004	NA	NA	NA	
Boring #4				7.6	< 0.6	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	
Boring #5	191-1997-5 Boring #5			5.7	280	<0.5	6.2	13.0	16.0	NA	NA	NA	
Boring #3	191-1997-5 Boring #5 10.6			10.6	< 0.6	< 0.003	< 0.003	< 0.003	< 0.003	NA	NA	NA	
Boring #6	191-1997-1 Boring #6			5.0	< 0.6	< 0.003	< 0.003	< 0.003	< 0.003	NA	NA	NA	
Boring #7	191-1997-2 Boring #7			6.0	< 0.6	< 0.003	< 0.003	< 0.003	< 0.003	NA	NA	NA	
Boring #8	191-1997-3 Boring #8	Chen-		7.0	< 0.6	< 0.004	< 0.004	< 0.004	< 0.004	NA	NA	NA	
Boring #9	191-1997-4 Boring #9	Northern, Inc.	09/20/91	7.0	860	0.73	2.4	5.2	33.0	NA	NA	NA	
Boring #10	191-1997-5 Boring #10	Tvortnern, me.		6.0	< 0.6	< 0.004	< 0.004	< 0.004	< 0.003	NA	NA	NA	
Boring #11				8.0	< 0.7	< 0.006	< 0.006	< 0.006	< 0.006	NA	NA	NA	
Boring #12	191-1997-2			12.5	< 0.6	< 0.006	< 0.006	< 0.006	< 0.006	NA	NA	NA	
Boring #13	191-1997-3			6.9	2.4	20	170	33	240	NA	NA	NA	
Bornig #15	191-1997-4			10.6	24	1.7	6.6	1.8	10	NA	NA	NA	
Boring #14	191-1997-5			4.7	1.1	< 0.006	< 0.006	< 0.006	< 0.006	NA	NA	NA	
Boring #15	191-1997-6			10.1	< 0.6	< 0.006	< 0.006	< 0.006	< 0.006	NA	NA	NA	
Boring #16	==			6.0	240	1.39	4.56	0.92	7.2	NA	NA	NA	
Boring #17				6.0	5	0.055	0.082	0.088	0.394	NA	NA	NA	
MTCA Method	ATCA Method A Cleanup Levels for Soil ⁵					0.03	7	6	9	0.005	0.0232	0.1	

Table 1 Soil Analytical Results - Petroleum Hydrocarbons and VOCs Kelloggs Korner

Sunnyside, Washington Farallon PN: 1432-001

				Sample		1	Analy	tical Results (millig	rams per kilo	gram)	1	1
Sample Location	Sample Identification	Sampled By	Sample Date	Depth (feet) ¹	GRO^2	Benzene ³	Toluene ³	Ethylbenzene ³	Xylenes ³	EDB ⁴	EDC ⁴	MTBE ⁴
FB-06	FB-6-11.0-110915			11	<7.3	< 0.020	< 0.073	< 0.073	< 0.073	NA	NA	NA
гв-00	FB-6-15.3-110915			15.3	<6.5	< 0.020	< 0.065	< 0.065	< 0.065	NA	NA	NA
FB-07	FB-7-11.5-110915			11.5	31	< 0.020	< 0.071	< 0.071	0.13	NA	NA	NA
I· D -07	FB-7-15.5-110915			15.5	< 6.9	< 0.020	< 0.069	< 0.069	< 0.069	NA	NA	NA
FB-08	FB-8-10.3-110915		11/09/15	10.3	<13	< 0.0014	< 0.0071	< 0.0014	< 0.0042	< 0.0014	< 0.0014	< 0.0014
FD-06	FB-8-15.0-110915		11/09/13	15	<6.3	< 0.020	< 0.063	< 0.063	< 0.063	NA	NA	NA
FB-09	FB-9-10.3-110915			10.3	< 6.0	< 0.00091	< 0.0046	< 0.00091	< 0.00271	< 0.00091	< 0.00091	< 0.00091
T-D-09	FB-9-16.0-110915			16	< 6.5	< 0.020	< 0.065	< 0.065	< 0.065	NA	NA	NA
FB-10	FB-10-10.1-110915			10.1	<7.8	< 0.020	< 0.078	< 0.078	< 0.078	NA	NA	NA
T-D-10	FB-10-15.0-110915			15	<6.1	< 0.020	< 0.061	< 0.061	< 0.061	NA	NA	NA
FB-11	FB-11-10.0-111015			10	<6.2	< 0.020	< 0.062	< 0.062	< 0.062	NA	NA	NA
1.0-11	FB-11-13.5-111015			13.5	< 6.4	< 0.020	< 0.064	< 0.064	< 0.064	NA	NA	NA
FB-12	FB-12-10.0-111015			10	<6.7	< 0.020	< 0.067	< 0.067	< 0.067	NA	NA	NA
1.D-17	FB-12-16.7-111015			16.7	<6.1	< 0.020	< 0.061	< 0.061	< 0.061	NA	NA	NA
FB-13	FB-13-10.0-111015	Farallon	11/10/15	10	< 7.0	< 0.020	< 0.070	< 0.070	< 0.070	NA	NA	NA
TB-13	FB-13-13.8-111015	Taranon	11/10/13	13.8	<6.8	< 0.020	< 0.068	< 0.068	< 0.068	NA	NA	NA
FB-14	FB-14-12.0-111015			12	< 5.9	< 0.00093	< 0.0046	< 0.059	< 0.179	< 0.059	< 0.00093	< 0.00093
1.0-14	FB-14-17.7-111015			17.7	<5.5	< 0.020	< 0.055	< 0.055	< 0.055	NA	NA	NA
FB-15	FB-15-10.0-111015			10	<7.3	< 0.020	< 0.073	< 0.073	< 0.073	NA	NA	NA
1·D-13	FB-15-16.0-111015			16	<7.1	< 0.020	< 0.071	< 0.071	< 0.071	NA	NA	NA
FMW-1	FMW-1-7.5		10/17/17	7.5	<6.7	< 0.020	< 0.067	< 0.067	< 0.134	NA	NA	NA
1 141 44 -1	FMW-1-15.0		10/1//1/	15.0	<7.7	< 0.020	< 0.077	< 0.077	< 0.154	NA	NA	NA
FMW-2	FMW-2-11.0			11.0	<7.8	< 0.020	< 0.078	< 0.078	< 0.156	NA	NA	NA
1 W W -2	FMW-2-15.0		10/16/17	15.0	<7.0	< 0.020	< 0.070	< 0.070	< 0.140	NA	NA	NA
FMW-3	FMW-3-7.0		10/10/17	7.0	<7.2	< 0.020	< 0.072	< 0.072	< 0.144	NA	NA	NA
1 101 00 -3	FMW-3-15.0			15.0	<7.3	< 0.020	< 0.073	< 0.073	< 0.146	NA	NA	NA
FMW-4	FMW-4-6.0			6.0	<5.7	< 0.020	< 0.057	< 0.057	< 0.114	NA	NA	NA
1 101 00 -4	FMW-4-13.0		10/17/17	13.0	<7.7	< 0.020	< 0.077	< 0.077	< 0.154	NA	NA	NA
FMW-5	FMW4-6.0		10/1//1/	6.0	<6.2	< 0.020	< 0.062	< 0.062	< 0.124	NA	NA	NA
1101 00 -3	FMW-4-14.0			14.0	<7.2	< 0.020	< 0.072	< 0.072	< 0.144	NA	NA	NA
MTCA Method	A Cleanup Levels for Soil ⁵				30/100	0.03	7	6	9	0.005	0.0232	0.1

NOTES:

BTEX = benzene, toluene, ethylbenzene, and xylenes

 $EDB = 1, 2 \hbox{-} Dibromethane$

EDC = 1,2-Dichloroethane

Farallon = Farallon Consulting, L.L.C.

GRO = total petroleum hydrocarbons as gasoline-range organics

MTBE = methyl tertiary-butyl ether

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

NA denotes sample was not analyzed.

¹Depth in feet below ground surface.

²Analyzed by Northwest Method NWTPH-Gx.

⁵Analyzed by U.S. Environmental Protection Agency Methods 8021B or 8260C.

⁴Analyzed by U.S. Environmental Protection Agency Method 8260C.

⁵Washington 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 amended 2013.

Table 2 Summary of Groundwater Elevation Data Kelloggs Korner

Sunnyside, Washington Farallon PN: 1432-001

Well Identification	Monitoring Date	Depth of Monitoring Well (feet)	Monitoring Well Screened Interval (feet bgs)	Wellhead Elevation ¹ (feet)	Depth to Water (below TOC)	Groundwater Elevation (feet)
FMW-1		16.91	4-14	100.77	12.10	88.67
FMW-2		16.50	4-14	102.00	12.71	89.29
FMW-3	10/24/2017	17.86	5-15	101.85	13.22	88.63
FMW-4		14.62	5-15	100.00	13.05	86.95
FMW-5]	14.75	5-15	99.49	13.16	86.33

NOTES

¹Elevation in feet based on an assumed 100-foot arbitrary datum.

bgs = below ground surface

NA = not available

NC = not calculated

TOC = top of casing

Table 3 Groundwater Analytical Results - Petroleum Hydrocarbons Kelloggs Korner

Sunnyside, Washington Farallon PN: 1432-001

					An	alytical Results	(micrograms per	r liter)		
Sample Location	Sample Date	Sample Identification	DRO ¹	ORO¹	GRO^2	Benzene ³	Toluene ³	Ethylbenzene ³	Xylenes ³	Total Lead
				Groundw	ater Samples					
	3/18/1994	RW #1	NA	NA	<100	<1	<1	<1	<3	NA
PRW-1	6/9/1994	6994415PMW1	NA	NA	<100	<1	<1	<1	<3	< 50
1 IX W-1	9/8/1994	RW#1	NA	NA	<100	8	<1	<1	<3	<10
	5/22/2015	RW-1-052215	<260	<410	<100	<1	<1	<1	<2	<1.1
	3/18/1994	RW #2	NA	NA	100	<1	7	<1	<3	NA
PRW-2	6/9/1994	6994520PRW2	NA	NA	200	<1	120	<1	<3	< 50
	9/8/1994	RW#2	NA	NA	100	<1	2	<1	<3	<10
	3/18/1994	RW #3	NA	NA	2000	610	14	70	12	NA
PRW-3	6/9/1994	6994540PRW3	NA	NA	1600	590	19	43	8	<50
	9/8/1994	RW#3	NA	NA	1600	650	13	49	11	<10
PRW-4	6/9/1994	6994345PMW4	NA	NA	<100	<1	<1	<1	<3	< 50
FK W-4	5/22/2015	RW-4-052215	<250	<410	<100	<1	<1	<1	<2	<1.1
	6/9/1994	6994440PRW5	NA	NA	<100	<1	<1	<1	<3	<50
PRW-5	0/9/1994	DUPLICATE 152295	NA	NA	<100	<1	<1	<1	<3	NA
	5/22/2015	RW-5-052215	<260	<410	<100	<1	<1	<1	<2	<1.1
	3/18/1994	MW #1	NA	NA	<100	<1	<1	<1	<3	NA
	6/9/1994	6994440PRW1	NA	NA	<100	<1	<1	<1	<3	< 50
MW-1	9/8/1994	MW#1	NA	NA	200	<1	<1	<1	<3	<10
	9/0/1994	DUPLICATE 154795	NA	NA	<100	<1	<1	<1	<3	<10
	5/22/2015	MW-1-052215	<260	<410	<100	<1	<1	<1	<2	<1.1
	3/18/1994	MW #3	NA	NA	12300	2100	2000	310	1700	NA
	3/16/1994	MW#10	NA	NA	12300	2200	2100	330	1700	NA
MW-3	6/9/1994	6994510PMW3	NA	NA	17000	3200	3300	370	2100	< 50
	9/8/1994	MW#3	NA	NA	19000	2200	3900	500	2900	20
	9/0/1994	MW#10	NA	NA	20000	2100	480	3700	2800	<10
	3/18/1994	MW #4	NA	NA	<100	<1	<1	<1	<3	NA
MW-4	9/8/1994	MW#4	NA	NA	<100	<1	<1	<1	<3	<10
	5/22/2015	MW-4-052215	<260	<410	<100	<1	<1	<1	<2	<1.1
FMW-1	10/25/2017	FMW-1-102517	NA	NA	<100	<1	<1	<1	<2	NA
FMW-2	10/25/2017	FMW-2-102517	NA	NA	<100	<1	<1	<1	<2	NA
FMW-3	10/25/2017	FMW-3-102517	NA	NA	<100	<1	<1	<1	<2	NA
FMW-4	10/25/2017	FMW-4-102517	NA	NA	<100	<1	<1	<1	<2	NA
FMW-5	10/25/2017	FMW-5-102517	NA	NA	<100	<1	<1	<1	<2	NA
MTCA Method	d A Cleanup Level f	or Groundwater ⁴	500	500	800/1,000 ⁵	5	1,000	700	1,000	15

Table 3 **Groundwater Analytical Results - Petroleum Hydrocarbons**

Kelloggs Korner Sunnyside, Washington

		Farallon P	N: 1432-001	
			An	alytical R
Sample				

					An	alytical Results	micrograms per	liter)		
Sample Location	Sample Date	Sample Identification	DRO ¹	ORO ¹	GRO^2	Benzene ³	Toluene ³	Ethylbenzene ³	Xylenes ³	Total Lead
			R	econnaissance G	roundwater Sam	ples				
FB-06	11/09/15	FB-6-GW-110915	NA	NA	<100	< 0.20	<1.0	< 0.20	< 0.40	NA
FB-07	11/09/15	FB-7-GW-110915	NA	NA	<100	<1.0	<1.0	<1.0	<1.0	NA
FB-08	11/09/15	FB-8-GW-110915	NA	NA	<100	< 0.20	<1.0	0.24	0.55	NA
FB-09	11/09/15	FB-9-GW-110915	NA	NA	<100	< 0.20	<1.0	< 0.20	< 0.40	NA
FB-10	11/09/15	FB-10-GW-110915	NA	NA	<100	<1.0	<1.0	<1.0	<1.0	NA
FB-11	11/10/15	FB-11-GW-111015	NA	NA	<100	<1.0	<1.0	<1.0	<1.0	NA
FB-12	11/10/15	FB-12-GW-111015	NA	NA	<100	<1.0	<1.0	<1.0	<1.0	NA
FB-13	11/10/15	FB-13-GW-111015	NA	NA	<100	<1.0	<1.0	<1.0	<1.0	NA
FB-14	11/10/15	FB-14-GW-111015	NA	NA	<100	< 0.20	<1.0	< 0.20	< 0.40	NA
FB-15	11/10/15	FB-15-GW-111015	NA	NA	<100	<1.0	<1.0	<1.0	<1.0	NA
MTCA Method	d A Cleanup Level fo	or Groundwater ⁴	500	500	800/1,000 ⁵	5	1,000	700	1,000	15

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

amended 2013.

 $BTEX = benzene, \, toluene, \, ethylbenzene, \, and \, \, xylenes$

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

GRO = TPH as gasoline-range organics

ORO = TPH as oil-range organics

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

¹Analyzed by Northwest Method NWTPH-Dx.

²Analyzed by Northwest Method NWTPH-Gx.

³Analyzed by U.S. Environmental Protection Agency Method 8021B.

⁴Washington 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

⁵Cleanup level is 800 micrograms per liter if benzene is detected and 1,000 micrograms per liter if benzene is not detected.

Table 4 Groundwater Analytical Results - VOCs Kelloggs Korner

Sunnyside, Washington Farallon PN: 1432-001

			Analytica	al Results (micrograms	per liter)¹
Sample Location	Sample Date	Sample Identification	1-2,Dibromoethane (EDB) ⁴	1-2,Dichloroethane (EDC) ⁵	Methyl tertiary-butyl ether (MTBE) ⁵
	ļ.	Gro	undwater Samples	, ,	,
	3/18/1994	NA	NA	NA	NA
PRW-1	6/9/1994	6994415PMW1	NA	NA	NA
PKW-I	9/8/1994	RW#1	NA	NA	NA
	5/22/2015	RW-1-052215	<0.20	< 0.20	NA
	3/18/1994	NA	NA	NA	NA
PRW-2	6/9/1994	6994520PRW2	NA	NA	NA
	9/8/1994	RW#2	NA	NA	NA
	3/18/1994	NA	NA	NA	NA
PRW-3	6/9/1994	6994540PRW3	NA	NA	NA
	9/8/1994	RW#3	NA	NA	NA
DDIV 4	6/9/1994	6994345PMW4	NA	NA	NA
PRW-4	5/22/2015	RW-4-052215	<0.20	< 0.20	NA
	6/0/1004	6994440PRW5	NA	NA	NA
PRW-5	6/9/1994	DUPLICATE 152295	NA	NA	NA
	5/22/2015	RW-5-052215	<0.20	< 0.20	NA
	3/18/1994	NA	NA	NA	NA
	6/9/1994	6994440PRW1	NA	NA	NA
MW-1	0/0/1004	MW#1	NA	NA	NA
	9/8/1994	DUPLICATE 154795	NA	NA	NA
	5/22/2015	MW-1-052215	<0.20	< 0.20	NA
	2/10/1004	NA	NA	NA	NA
	3/18/1994	NA	NA	NA	NA
MW-3	6/9/1994	6994510PMW3	NA	NA	NA
	0/0/1004	MW#3	NA	NA	NA
	9/8/1994	MW#10	NA	NA	NA
	3/18/1994	NA	NA	NA	NA
MW-4	9/8/1994	MW#4	NA	NA	NA
	5/22/2015	MW-4-052215	<0.20	< 0.20	NA
FMW-1	10/25/2017	FMW-1-102517	NA	NA	NA
FMW-2	10/25/2017	FMW-2-102517	NA	NA	NA
FMW-3	10/25/2017	FMW-3-102517	NA	NA	NA
FMW-4	10/25/2017	FMW-4-102517	NA	NA	NA
FMW-5	10/25/2017	FMW-5-102517	NA	NA	NA
MTCA Cleanup L	evels for Grour	ndwater ²	0.01 ²	5 ²	20 ²

Table 4 Groundwater Analytical Results - VOCs Kelloggs Korner

Sunnyside, Washington Farallon PN: 1432-001

			Analytic	al Results (micrograms	per liter) ¹
Sample Location	Sample Date	Sample Identification	1-2,Dibromoethane (EDB) ⁴	1-2,Dichloroethane (EDC) ⁵	Methyl tertiary-butyl ether (MTBE) ⁵
		Reconnaissai	nce Groundwater Sampl	es	•
FB-06	11/09/15	FB-6-GW-110915	< 0.0096	< 0.20	< 0.20
FB-07	11/09/15	FB-7-GW-110915	NA	NA	NA
FB-08	11/09/15	FB-8-GW-110915	< 0.0097	< 0.20	< 0.20
FB-09	11/09/15	FB-9-GW-110915	< 0.0096	< 0.20	< 0.20
FB-10	11/09/15	FB-10-GW-110915	NA	NA	NA
FB-11	11/10/15	FB-11-GW-111015	NA	NA	NA
FB-12	11/10/15	FB-12-GW-111015	NA	NA	NA
FB-13	11/10/15	FB-13-GW-111015	NA	NA	NA
FB-14	11/10/15	FB-14-GW-111015	< 0.0096	< 0.20	< 0.20
FB-15	11/10/15	FB-15-GW-111015	NA	NA	NA
MTCA Cleanup L	evels for Groun	ndwater ²	0.01 ²	5 ²	20 ²

NOTES:

VOC = volatile organic compound

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

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

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

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

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

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

APPENDIX A FARALLON'S BORING AND WELL CONSTRUCTION LOGS

REMEDIAL INVESTIGATION REPORT Kelloggs Korner Midvale and Emerald Roads Sunnyside, Washington

Farallon PN: 1432-001



USCS Classification and Graphic Legend

0.0							
N	<i>l</i> lajor Divis	ions	USCS Graphic Symbol		USCS Letter Symbol		Lithologic Description
Coarse-	GRAVEL	CLEAN GRAVEL (Little			GW	Well graded GRA	VEL, well graded GRAVEL with sand
Grained Soil (More	AND GRAVELLY	or no fines)			GP		AVEL, GRAVEL with sand
than 50% of material	SOIL (More than 50% of	GRAVEL WITH FINES			P-GM		AVEL - GRAVEL with sand and silt
is larger than No.	coarse fraction	(Appreciable amount of fines)			GM	Silty GRAVEL	
200 sieve size)	retained on No. 4 sieve)				GC	Clayey GRAVEL	
	SAND AND	CLEAN SAND (Little or		,	SW	Well graded SANI	0
	SANDY SOIL (More	no fines)			SP	Poorly graded SA	ND
	than 50% of coarse fraction	SAND WITH FINES (Appreciable amount of		SI	P-SM	Poorly graded SA	ND - silty SAND
	passed through No.	fines)			SM	Silty SAND	
	4 sieve)				sc	Clayey SAND	
				SI	M-ML	SILT - Silty SAND	
Fine- Grained	SILT AND CLAY (Liquid				ML	SILT	
Soil (More than 50%	limit less than 50)		777		CL	CLAY	
of material is smaller	,				OL	Organic SILT	
than No. 200 sieve	SILT AND CLAY (Liquid				MH	Inorganic SILT	
size)	limit greater than 50)				СН	Inorganic CLAY	
					ОН	Organic CLAY	
		Highly Organic Soil			PT	Peat	
OTHER MATERIALS	PAVEMENT				AC	Asphalt concrete	
					СО	Concrete	
	OTHER				RK 	Bedrock	
					WD	Wood Debris	
					DB ——— PC	Debris (Miscelland	eous)
						Portland cement	
	Sample In	terval			Leç	gend	Solid line indicates sharp contact between units well defined.
G	Grab Sam	ple Interval		0 / (Cemen	t Grout	Dashed line indicates gradational contact between units.
-	Water leve	el at time of drilling			Benton	ite	feet bgs = feet below ground surface NE = Not Encountered
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Water leve	el at time of sampling					NA = Not Applicable
	Blank Cas	ing			Sand Pack PID = Photoionization Detector PN = Project Number		
	Screened	Casing			Well Ca	ар	*ppm = parts per million total organic vapors in isobutylene equivalents using a 10.6 electron volt lamp USCS = Unified Soil Classification System



Page 1 of 1

Client: Davis Wright Tremaine LLP

Project: Kellogg's Corner, Alexander Road &

Location: Sunnyside, WA

Farallon PN: 1432-001

Logged By: J. Kerr

Date/Time Started: 11/09/2015 10:05 **Date/Time Completed:** 11/09/2015 10:35

Equipment: GeoProbe

Drilling Company: ESN Inc.

Drilling Foreman: Don

Drilling Method: Direct Push

Sampler Type: 2-inch x 60-inch macrocore

Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 7.2
Total Boring Depth (ft bgs): 20

Total Well Depth (ft bgs): NA

Lo	gge	ed By: J. Kerr										
Depth (feet bgs.)	Sample Interval	Lithologic Descriptio	n	nscs	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Cons	ng/Well struction etails
0-		0 to 0.8: Poorly graded GRAVEL (50% gravel, 30% sa fine to coarse gravel, fine to medium sand, brown, dry 0.8 to 3.2: Sandy SILT (90% silt, 10% sand), brown, n	noist, no odor.	GP ML	⊠	80		0.9	MW-6-2.5-110915	x		
5-		3.4 to 4: Sandy SILT (85% silt, 15% sand), fine to med moist, no odor. 4 to 5: No Recovery.	/ /	ML 				1.0				
-		5.0 to 5.5: Sandy SILT (85% silt, 15% sand), fine to m gray, moist, no odor. 5.5 to 8.5: Sandy SILT (80% silt, 20% sand), fine to m brown, moist to wet at 7.2 feet, no odor. 8.5 to 10: No Recovery.	edium sand,	ML		70		1.0	MW-6-7.2-110915	x	-	∠
10		10 to 13.4: Silty SAND (75% sand, 25% silt), fine to m dark brown, wet, no odor.	edium sand,	SM		100		1.4	MW-6-11.0-110915			Bentonite Chip Seal
-	$/ \setminus$	13.4 to 15: Sandy SILT (90% silt, 10% silt), fine sand, no odor.	light brown, wet,	ML				1.4				
15		15 to 20: Sandy SILT (90% silt, 10% sand), fine sand, no odor. Sand lense at 15.3 bgs.	light brown, wet,	ML		100		1.9	MW-6-15.3-110915			
20 -												

Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): NA
Screened Interval (ft bgs): NA

Well Construction Information
Filter Pack: NA
Surface Seal: NA
Annular Seal: NA

Boring Abandonment:



Page 1 of 1

Davis Wright Tremaine LLP Client:

Project: Kellogg's Corner, Alexander Road &

Location: Sunnyside, WA

Farallon PN: 1432-001

Logged By: J. Kerr

11/09/2015 11:27 Date/Time Started: 11/09/2015 12:05 Date/Time Completed:

Equipment: GeoProbe

Drilling Company: ESN Inc. **Drilling Foreman:** Don

Drilling Method: Direct Push Sampler Type: 2-inch x 60-inch macrocore

NA

NA

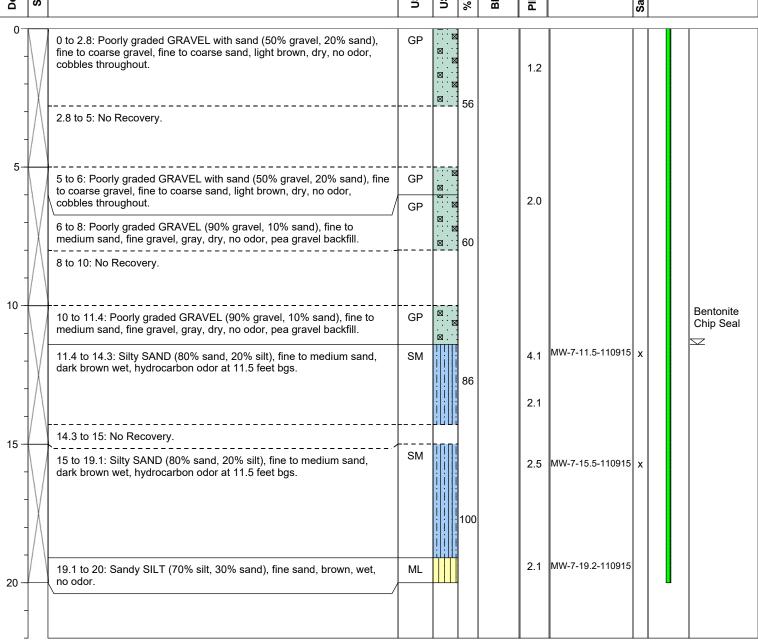
X:-120.0205

Y: 46.30215

Drive Hammer (lbs.): NA Depth of Water ATD (ft bgs): 11.4

Total Boring Depth (ft bgs): 20 Total Well Depth (ft bgs): NA

Depth (feet bgs.) Sample Interval	Lithologic Description	sosn	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Well Construction Information Ground Surface Elevation (ft): Monument Type: NA Filter Pack: NA Top of Casing Elevation (ft): Casing Diameter (inches): NA Surface Seal: NA Surveyed Location: Screen Slot Size (inches): NA **Annular Seal:** Screened Interval (ft bgs): **Boring Abandonment:** Bentonite Chip to Surface 11/09/2015



Page 1 of 1

Client: Davis Wright Tremaine LLP

Project: Kellogg's Corner, Alexander Road &

Location: Sunnyside, WA

Farallon PN: 1432-001

Logged By: J. Kerr

Date/Time Started: 11/09/2015 12:46 **Date/Time Completed:** 11/09/2015 13:20

Date/Time Completed: 11/09/2015 13 **Equipment:** GeoProbe

Drilling Company: ESN Inc.

Drilling Method: Direct Push

Drilling Foreman: Don

Sampler Type: 2-inch x 60-inch macrocore

Drive Hammer (lbs.): NA

Depth of Water ATD (ft bgs): 12.6

Total Boring Depth (ft bgs): 20
Total Well Depth (ft bgs): NA

LO	gge	ed By: J. Neil										
Depth (feet bgs.)	Sample Interval	Lithologic Description	9.78I		USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Cons	ing/Well struction etails
0-		0 to 1.3: Poorly graded GRAVEL with silt and sand (50% gravel sand, 20% silt) fine to coarse gravel, fine to coarse sand, brown odor, dry, cobbles throughout. 1.3 to 2: Sandy SILT (85% silt, 15% sand), fine to medium sand brown, moist, no odor. 2 to 5: No Recovery.	n, no M	GM ² ·		40						
5-		5 to 6.1: Poorly graded GRAVEL with silt and sand (50% gravel sand, 20% silt) fine to coarse gravel, fine to coarse sand, brown odor, dry, cobbles throughout. 6.1 to 10: No Recovery.	n, no	: GM		22		2.5				
10 -		10 to 12.9: Sandy SILT (65% silt, 35% sand), fine to medium sa gray, moist, hydrocarbon odor, sheen from 12.6 to 12.9 feet bgs	and, M	L		58			MW-8-10.3-110915 MW-8-12.6-110915		į	Bentonite Chip Seal
15 -		15 to 20: Sandy SILT (65% silt, 35% sand), fine to medium san moist, hydrocarbon odor from 15 to 15.7 feet bgs.	d, gray, M	L		100			MW-8-15.0-110915			
-	-											

Monument Type: NA

Casing Diameter (inches): NA

Screen Slot Size (inches): NA

Screened Interval (ft bgs): NA

Well Construction Information
Filter Pack: NA
Surface Seal: NA
Annular Seal: NA
Boring Abandonment: Bentonite Chip to S



Page 1 of 1

Client: Davis Wright Tremaine LLP

Project: Kellogg's Corner, Alexander Road &

Location: Sunnyside, WA

Farallon PN: 1432-001

Logged By: J. Kerr

Date/Time Started: 11/09/2015 13:54 **Date/Time Completed:** 11/09/2015 14:25

Equipment: GeoProbe

Drilling Company: ESN Inc.
Drilling Foreman: Don

Drilling Method: Direct Push

Sampler Type: 2-inch x 60-inch macrocore

Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 12.2
Total Boring Depth (ft bgs): 20

Total Well Depth (ft bgs): NA

LO	gge	ed By: J. Kerr	_									
Depth (feet bgs.)	Sample Interval	Lithologic Descriptio	n	nscs	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Const	g/Well ruction tails
0		0 to 0.3: Gravelly SILT with sand (40% silt, 40% grave fine to coarse gravel, fine to medium sand, light brown 0.3 to 2.1: Sandy SILT (75% silt, 25% sand), fine to medium, moist, no odor. 2.1 to 5: No Recovery.	n, dry, no odor.	ML /		42		2.3				
5-		5 to 6.5: Gravelly SILT with sand (40% silt, 40% grave fine to coarse gravel, fine to medium sand, light brown 6.5 to 10: No Recovery.		ML		30						
10		10 to 11.6: Silty SAND (65% sand, 35% silt), fine to m wet, gray, staining and hydrocarbon odor 10.0 to 10.4 11.6 to 12.2: Sandy SILT (90% silt, 10% sand), fine sa brown, no odor. 12.2 to 12.7: Silty Sand (80% sand, 20% silt) fine to m wet, dark brown, no odor. 12.7 to 15: No Recovery	feet bgs. and, moist, nedium sand,	SM ML SM /		54		11.8	MW-9-10.3-110915 MW-9-12.3-110915			entonite thip Seal
15 20		15 to 20: Sandy SILT (85% silt, 15% sand), fine to me brown, wet, no odor, sand lenses 15.9 to 16.2 feet bg: 17.7 feet bgs.	edium sand, s and 17.4 to	ML		100		16 17.5	MW-9-16-110915	x		

Monument Type: NA

Casing Diameter (inches): NA

Screen Slot Size (inches): NA

Screened Interval (ft bgs): NA

Well Construction Information
Filter Pack: NA
Surface Seal: NA
Annular Seal: NA

Boring Abandonment:



Page 1 of 1

Client: Davis Wright Tremaine LLP

Project: Kellogg's Corner, Alexander Road &

Location: Sunnyside, WA

Farallon PN: 1432-001

Logged By: J. Kerr

Date/Time Started: 11/09/2015 15:04 **Date/Time Completed:** 11/09/2015 15:40

Equipment: GeoProbe

Drilling Company: ESN Inc.

Drilling Foreman: Don

Drilling Method: Direct Push

Sampler Type: 2-inch x 60-inch macrocore

Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 12
Total Boring Depth (ft bgs): 20

Total Well Depth (ft bgs): NA

LUg	9	tu by. o. Ron								
Depth (feet bgs.)	Sample Interval	Lithologic Description	nscs	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0 to 0.9: Poorly graded SAND with silt and gravel (40% sand, 30% gravel, 30% silt), fine to coarse sand, fine to coarse gravel, light brown, dry, no odor, dark staining at 0.9 feet bgs. 0.9 to 3.8: Sandy SILT (95% silt, 5% sand) fine sand, brown, dry to moist at 3 feet bgs. 3.8 to 5: No Recovery.	SP-SM ML		76		1.8	MW-10-0.9-110915		
5		5 to 5.8: SILT (100% silt) brown, wet, no odor. 5.8 to 8.3: SILT (100% silt) gray, moist, no odor. 8.3 to 10: No Recovery.	ML ML		66		2.1	MW-10-5.0-110915		
10		10 to 14: Sandy SILT (85% silt, 15% sand), fine sand, brown, wet, no odor. 14 to 15: No Recovery.	ML		80			MW-10-10.1-110915 MW-10-12.0-110915	x	Bentonite Chip Seal
15		15 to 20: Sandy SILT (90% silt, 10% sand), fine sand, brown, wet, no odor.	ML		100		1.7	MW-10-15.0-110915	x	
-										

Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): NA
Screened Interval (ft bgs): NA

Well Construction Information
Filter Pack: NA
Surface Seal: NA
Annular Seal: NA
Boring Abandonment: Bentonite Chip to S



Page 1 of 1

Client: Davis Wright Tremaine LLP

Project: Kellogg's Corner, Alexander Road &

Location: Sunnyside, WA

Farallon PN: 1432-001

Logged By: J. Kerr

Date/Time Started: 11/09/2015 07:50

Date/Time Completed: 11/09/2015 08:20 **Equipment:** GeoProbe

Drilling Company: ESN Inc.
Drilling Foreman: Don

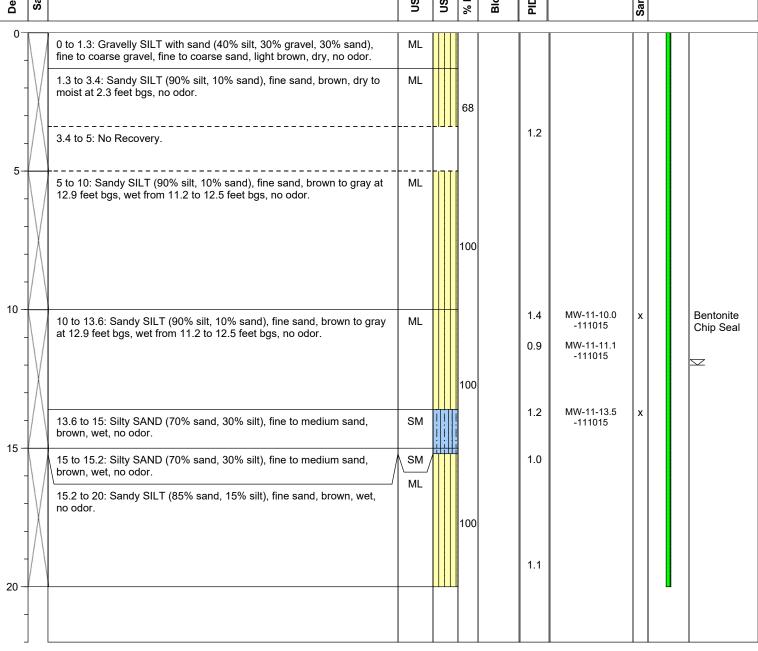
Drilling Method: Direct Push

Sampler Type: 2-inch x 60-inch macrocore

Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 12

Total Boring Depth (ft bgs): 20
Total Well Depth (ft bgs): NA

Lithologic Description	sos	SGS Graphic	Recovery	w Counts 8/8/	(mdd) c	Sample ID	nple Analyzed	Boring/Well Construction Details
------------------------	-----	-------------	----------	---------------	---------	-----------	---------------	--



Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): NA
Screened Interval (ft bgs): NA

Well Construction Information
Filter Pack: NA
Surface Seal: NA
Annular Seal: NA

Boring Abandonment:



Page 1 of 1

Client: Davis Wright Tremaine LLP

Project: Kellogg's Corner, Alexander Road &

Location: Sunnyside, WA

Farallon PN: 1432-001

Logged By: J. Kerr

Date/Time Started: 11/09/2015 09:00

Date/Time Completed: 11/09/2015 09:35

Don

Equipment: GeoProbe **Drilling Company:** ESN Inc.

Drilling Method: Direct Push

Sampler Type: 2-inch x 60-inch macrocore

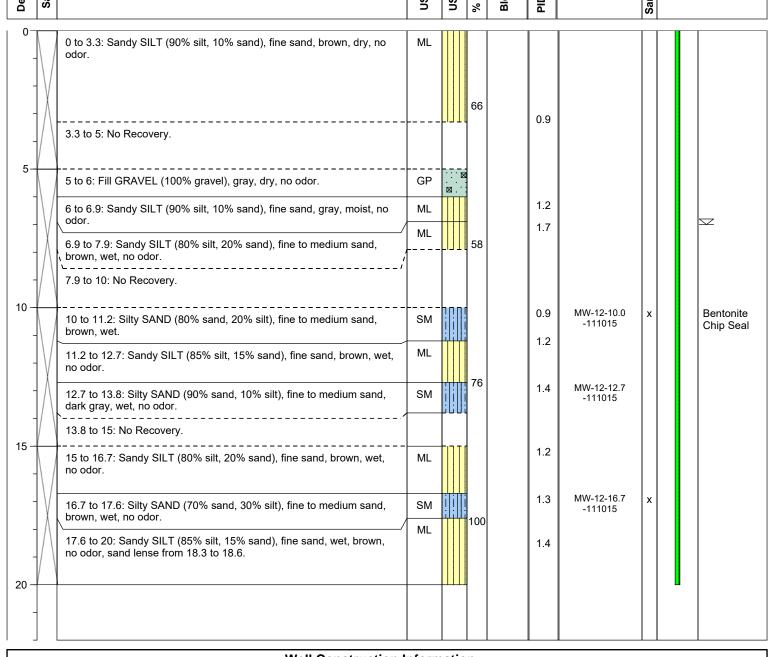
Drive Hammer (lbs.): NA

Depth of Water ATD (ft bgs): 7

Total Boring Depth (ft bgs): 20
Total Well Depth (ft bgs): NA

Lithologic Description	SCS SGS Graphic	GS Graph	ŭ li	Sample ID	Boring/Well Construction Details
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Drilling Foreman:



Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): NA
Screened Interval (ft bgs): NA

Well Construction Information
Filter Pack: NA
Surface Seal: NA
Annular Seal: NA

Boring Abandonment:



Page 1 of 1

Client: Davis Wright Tremaine LLP

Project: Kellogg's Corner, Alexander Road &

Location: Sunnyside, WA

Farallon PN: 1432-001

Logged By: J. Kerr

Date/Time Started: 11/09/2015 10:36 **Date/Time Completed:** 11/09/2015 11:10

Equipment: GeoProbe

Drilling Company: ESN Inc.

Drilling Foreman: Don

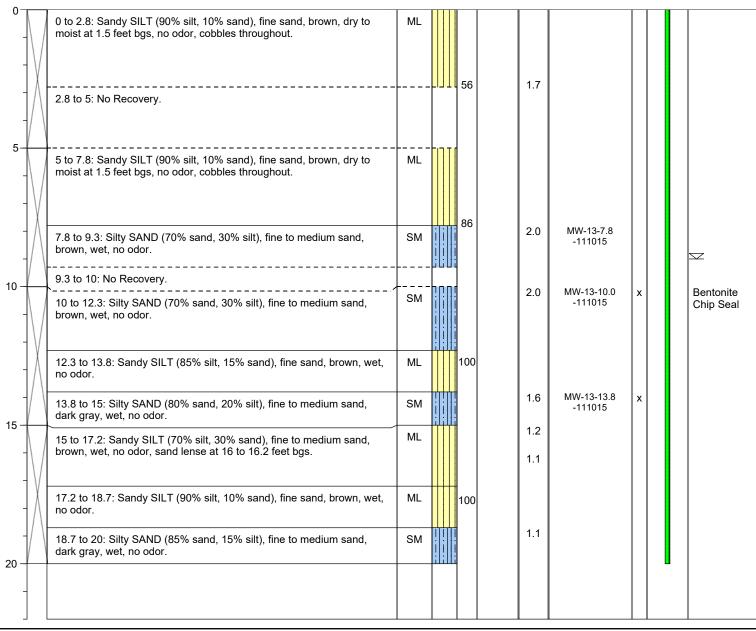
Drilling Method: Direct Push

Sampler Type: 2-inch x 60-inch macrocore

Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 9
Total Boring Depth (ft bgs): 20

Total Well Depth (ft bgs): NA

Depth (feet bgs.)	Sample Interval	Lithologic Description	nscs	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0-		0 to 2.8: Sandy SILT (90% silt, 10% sand), fine sand, brown, dry to moist at 1.5 feet bgs, no odor, cobbles throughout.	ML							



Monument Type: NA

Casing Diameter (inches): NA
Screen Slot Size (inches): NA
Screened Interval (ft bgs): NA

Well Construction Information
Filter Pack: NA
Surface Seal: NA
Top of Casing
Annular Seal: NA
Surveyed Loc
Screened Interval (ft bgs): NA
Boring Abandonment: Bentonite Chip to Surface 11/09/2015

 Ground Surface Elevation (ft):
 NA

 Top of Casing Elevation (ft):
 NA

 Surveyed Location:
 X:-120.0206

 urface 11/09/2015
 Y: 46.30231



Page 1 of 1

Client: Davis Wright Tremaine LLP

Project: Kellogg's Corner, Alexander Road &

Location: Sunnyside, WA

Farallon PN: 1432-001

Logged By: J. Kerr

Date/Time Started: 11/09/2015 11:54 **Date/Time Completed:** 11/09/2015 12:30

Date/Time Completed: 11/09/2015 1 **Equipment:** GeoProbe

Drilling Company: ESN Inc.

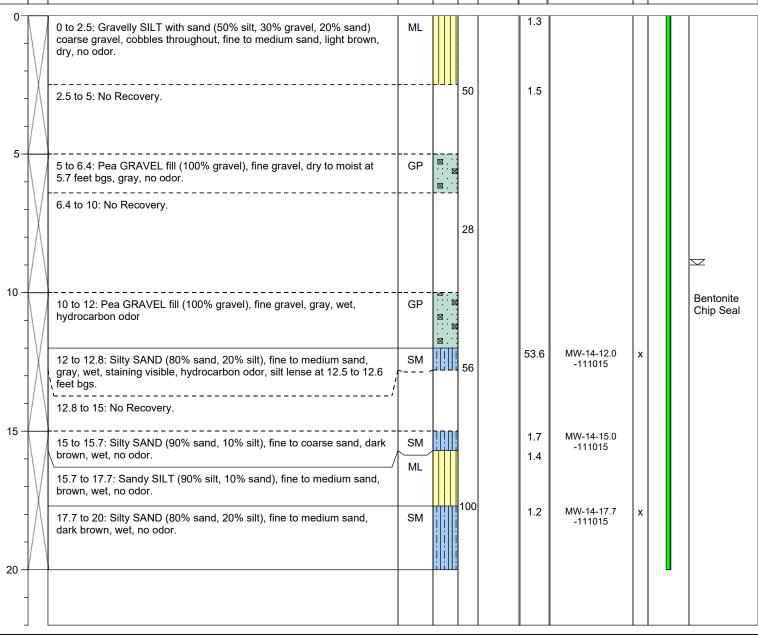
Drilling Foreman: Don

Drilling Method: Direct Push

Sampler Type: 2-inch x 60-inch macrocore

Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 9
Total Boring Depth (ft bgs): 20

Total Well Depth (ft bgs): NA



Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): NA
Screened Interval (ft bgs): NA

Well Construction Information
Filter Pack: NA
Surface Seal: NA
Annular Seal: NA
Boring Abandonment: Bentonite Chip to S



Page 1 of 1

Client: Davis Wright Tremaine LLP

Project: Kellogg's Corner, Alexander Road &

Location: Sunnyside, WA

Farallon PN: 1432-001

Logged By: J. Kerr

Date/Time Started: 11/09/2015 13:08

Date/Time Completed: 11/09/2015 13:30

Equipment: GeoProbe

Drilling Company: ESN Inc.

Drilling Foreman: Don

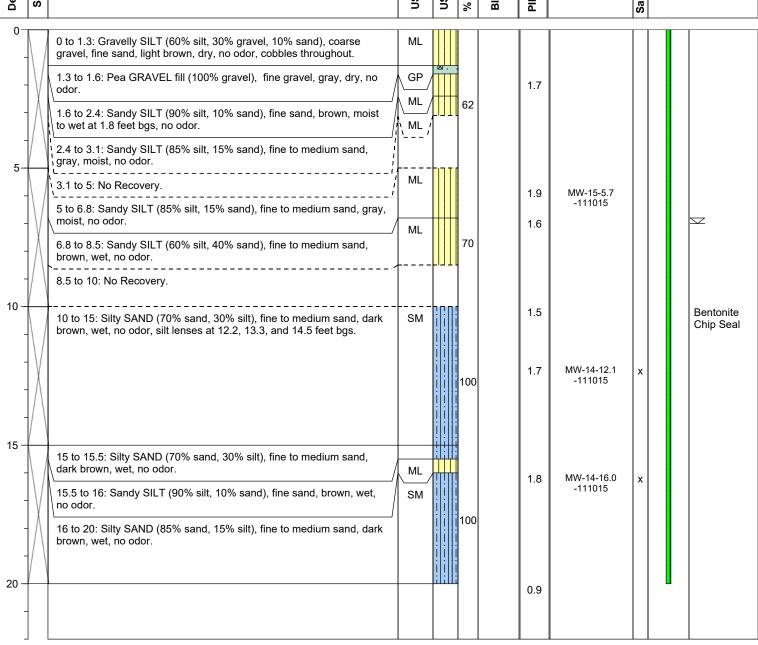
Drilling Method: Direct Push

Sampler Type: 2-inch x 60-inch macrocore

Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 7

Total Boring Depth (ft bgs): 20
Total Well Depth (ft bgs): NA

Lithologic Description	SOS	SGS Graphic	Recovery	low Counts 8/8/	D (ppm)	Sample ID	ımple Analyzed	Boring/Well Construction Details
------------------------	-----	-------------	----------	-----------------	---------	-----------	----------------	--



Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): NA
Screened Interval (ft bgs): NA

Well Construction Information
Filter Pack: NA
Surface Seal: NA
Annular Seal: NA
Boring Abandonment: Bentonite Chip to S



Page 1 of 1

Davis Wright Tremaine LLP Client:

Project: Kelloggs Korner Location: Sunnyside, WA

Farallon PN: 1432-001

Logged By: A. Burns

Date/Time Started: 10/16/17 @ 17:50 10/17/17 @ 9:30 **Date/Time Completed:**

Equipment: Drilling Company:

Drilling Foreman:

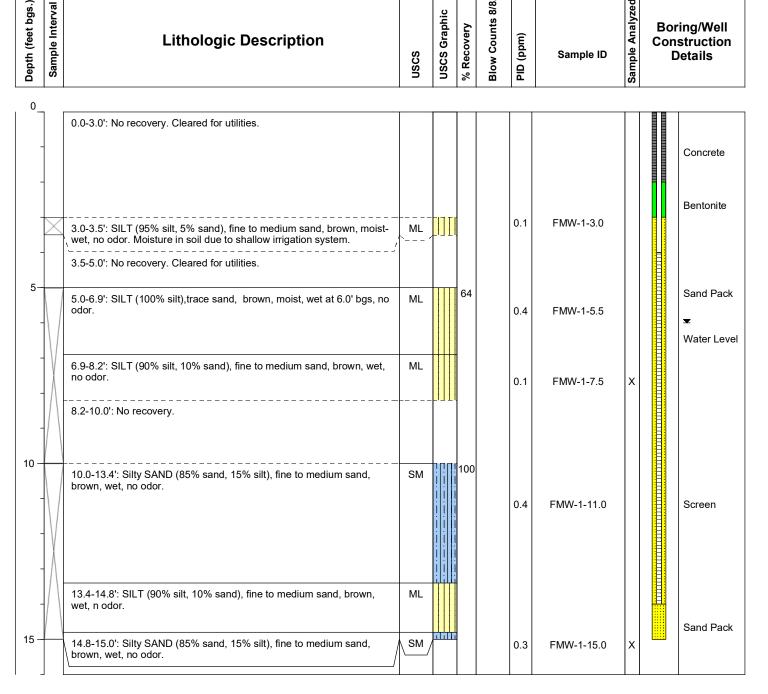
GeoProbe 7822DT Holt Drilling M. Running

Drive Hammer (lbs.): Auto Depth of Water ATD (ft bgs): ~6.0 Total Boring Depth (ft bgs): 15.0 Total Well Depth (ft bgs): 14.0

Sampler Type: 5' Macrocore

Direct Push **Drilling Method:**

Blow Counts 8/8/8 Sample Analyzed **USCS Graphic** Recovery Boring/Well (mdd) **Lithologic Description** Construction Sample ID **Details** 吕



Monument Type: Stick Up 2 Casing Diameter (inches): Screen Slot Size (inches): 0.010 Screened Interval (ft bgs): 4-14

Well Construction Information Filter Pack: 10-20 Sand Pre-Pack Concrete

Surface Seal: Annular Seal: Bentonite **Boring Abandonment:**

NA Ground Surface Elevation (ft): Top of Casing Elevation (ft): NA Surveyed Location: X:NA

Y: NA



Page 1 of 1

Client: Davis Wright Tremaine LLP

Project: Kelloggs Korner **Location:** Sunnyside, WA

Farallon PN: 1432-001

Logged By: A. Burns

Date/Time Started: 10/16/17 @ 14:30 **Date/Time Completed:** 10/16/17 @ 16:00

Equipment: GeoProbe 7822DT

Drilling Company: Holt Drilling

Drilling Foreman: M. Running
Drilling Method: Direct Push

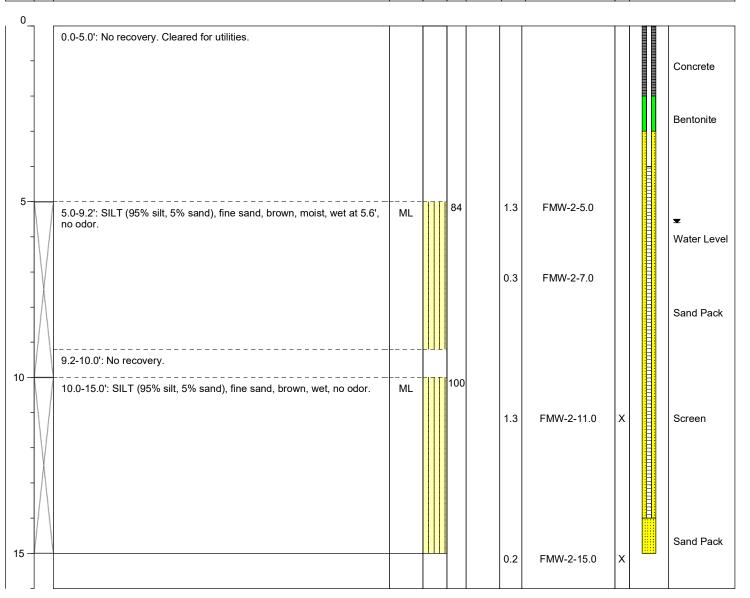
Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto
Depth of Water ATD (ft bgs): ~5.6
Total Boring Depth (ft bgs): 15.0

Total Well Depth (ft bgs): 14.0

Sample Interval

Box Counts 8/8/8



Monument Type: Stick Up

Casing Diameter (inches): 2

Screen Slot Size (inches): 0.010

Screened Interval (ft bgs): 4-14

Well Construction Information
Filter Pack: 10-20 Sand Pre-Pack
Surface Seal: Construct

Surface Seal: Concrete
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA

Surveyed Location: X: NA
Y: NA



Page 1 of 1

Client: Davis Wright Tremaine LLP

Project: Kelloggs Korner **Location:** Sunnyside, WA

Farallon PN: 1432-001

Logged By: A. Burns

Date/Time Started: 10/16/17 @ 11:30 **Date/Time Completed:** 10/16/17 @ 14:30

Equipment: GeoProbe 7822DT

Drilling Company: Holt Drilling

Drilling Foreman: M. Running
Drilling Method: Direct Push

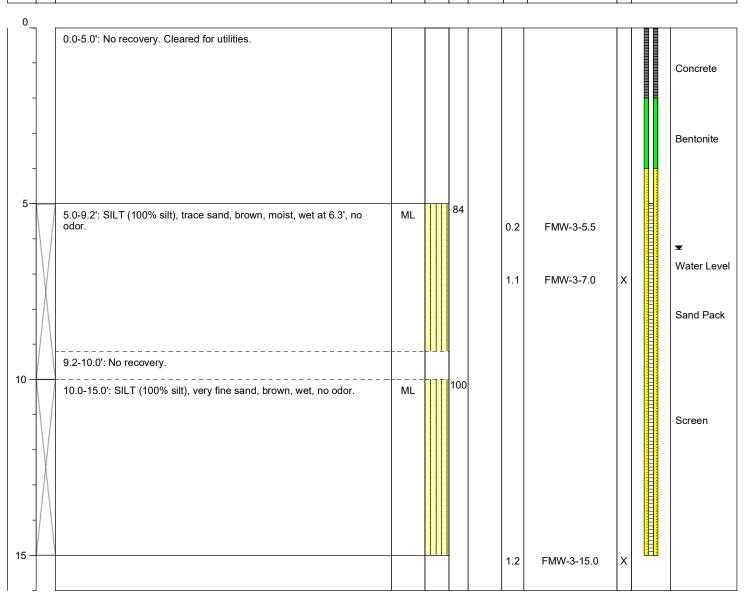
Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto
Depth of Water ATD (ft bgs): ~6.3
Total Boring Depth (ft bgs): 15.0

Total Well Depth (ft bgs): 15.0

Sample Interval

USCS Graphic
Details



Monument Type: Stick Up

Casing Diameter (inches): 2

Screen Slot Size (inches): 0.010

Screened Interval (ft bgs): 5-15

Well Construction Information
Filter Pack: 10-20 Sand Pre-Pack

Filter Pack: 10-20 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA
Surveyed Location: X:NA

Y: NA



Page 1 of 1

Davis Wright Tremaine LLP Client:

Project: Kelloggs Korner Location: Sunnyside, WA

Farallon PN: 1432-001

Logged By: A. Burns

Date/Time Started: 10/17/17 @ 11:30 Date/Time Completed: 10/17/17 @ 10:00

Equipment: GeoProbe 7822DT

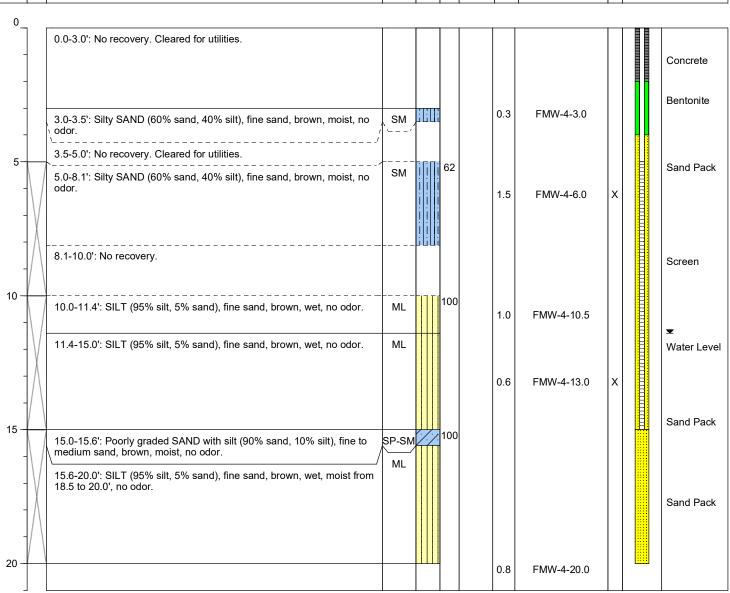
Drilling Company: Holt Drilling M. Running **Drilling Foreman:**

Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto Depth of Water ATD (ft bgs): ~11.4 Total Boring Depth (ft bgs): 20.0 Total Well Depth (ft bgs): 15.0

Direct Push **Drilling Method:**

feet bgs	Lithologic Description	nscs	USCS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Monument Type: Flush Mount Casing Diameter (inches): Screen Slot Size (inches): 0.010 Screened Interval (ft bgs): 5-15

Well Construction Information

Filter Pack: 10-20 Sand Pre-Pack Surface Seal: Concrete

Annular Seal: Bentonite **Boring Abandonment:**

NA Ground Surface Elevation (ft): Top of Casing Elevation (ft): NA

Surveyed Location: X:NA Y: NA



Page 1 of 1

Client: Davis Wright Tremaine LLP

Project: Kelloggs Korner **Location:** Sunnyside, WA

Farallon PN: 1432-001

Logged By: A. Burns

Date/Time Started: 10/17/17 @ 11:30 **Date/Time Completed:** 10/17/17 @ 12:30

Equipment: GeoProbe 7822DT

Drilling Company: Holt Drilling
Drilling Foreman: M. Running

Drilling Method: Direct Push

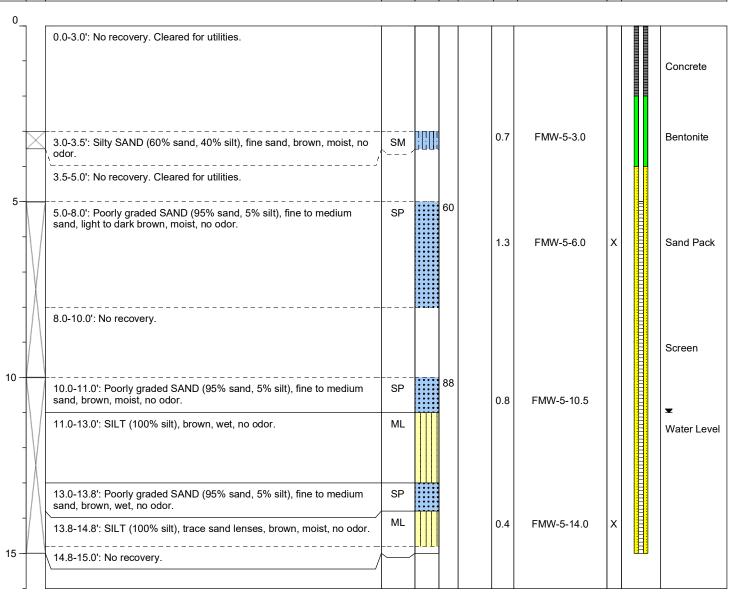
Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto
Depth of Water ATD (ft bgs): ~11.0
Total Boring Depth (ft bgs): 15.0

Total Well Depth (ft bgs): 15.0

Sample Interval

Blow Counts 8/8/8



Monument Type: Flush Mount
Casing Diameter (inches): 2
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 5-15

Well Construction Information

Filter Pack: 10-20 Sand Pre-Pack
Surface Seal: Concrete
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA
Surveyed Location: X:NA

Y: NA

APPENDIX B LABORATORY ANALYTICAL REPORTS

REMEDIAL INVESTIGATION REPORT Kelloggs Korner Midvale and Emerald Roads Sunnyside, Washington

Farallon PN: 1432-001



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

June 3, 2015

Joe Rounds Farallon Consulting, LLC 975 5th Avenue NW Issaquah, WA 98027

Re: Analytical Data for Project 1432-001

Laboratory Reference No. 1505-223

Dear Joe:

Enclosed are the analytical results and associated quality control data for samples submitted on May 23, 2015.

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

Project: 1432-001

Case Narrative

Samples were collected on May 22, 2015 and received by the laboratory on May 23, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that 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.

Project: 1432-001

NWTPH-Gx/BTEX

Matrix: Water
Units: ug/L (ppb)

Analyte Result PQL Method Prepared Analyzed Client ID: RW-5-052215 Security RW-5-052215 Security RW-5-052215 Security Result Result Result Result Result Security Security <th>3 (11 /</th> <th></th> <th></th> <th></th> <th>Date</th> <th>Date</th> <th></th>	3 (11 /				Date	Date	
Description	nalyte	Result	PQL	Method	Prepared	Analyzed	Flags
Benzene	lient ID:	RW-5-052215					
Toluene ND 1.0 EPA 8021B 5-27-15 5-27-15 Ethyl Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 Ethyl Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 m,p-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 o-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 o-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 Surrogate: Percent Recovery Control Limits Fluorobenzene 85 71-113 Client ID: MW-4-052215 Laboratory ID: 05-223-02 Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 Ethyl Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 m,p-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 m,p-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 o-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 o-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 Surrogate: Percent Recovery Control Limits Fluorobenzene 85 71-113 Client ID: MW-1-052215 Laboratory ID: 05-223-03 Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 Toluene ND 1.0 EPA 8021B 5-27-15 5-27-15 Toluene ND 1.0 EPA 8021B 5-27-15 5-27-15 Toluene ND 1.0 EPA 8021B 5-27-15 5-27-15 m,p-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 m,p-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 Ethyl Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 Ethyl Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 m,p-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 Ethyl Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 m,p-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 Exp-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15	aboratory ID:	05-223-01					
Ethyl Benzene	enzene	ND	1.0	EPA 8021B	5-27-15	5-27-15	
m,p-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 o-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 Gasoline ND 100 NWTPH-Gx 5-27-15 5-27-15 Surrogate: Percent Recovery Control Limits Fluorobenzene S-27-15 5-27-15 Client ID: MW-4-052215 Secondary ID: MW-4-052215 Secondary ID:	oluene	ND	1.0	EPA 8021B	5-27-15	5-27-15	
ND	thyl Benzene	ND	1.0	EPA 8021B	5-27-15	5-27-15	
ND 100 NWTPH-Gx 5-27-15 5-27-15	ı,p-Xylene	ND	1.0	EPA 8021B	5-27-15	5-27-15	
Surrogate: Percent Recovery 85 Control Limits 71-113 Client ID: MW-4-052215 Usboratory ID: 05-223-02 Benzene ND 1.0 EPA 8021B S-27-15 S-	-Xylene	ND	1.0	EPA 8021B	5-27-15	5-27-15	
Client ID: MW-4-052215 Laboratory ID: 05-223-02 Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 Toluene ND 1.0 EPA 8021B 5-27-15 5-27-15 Ethyl Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 Ethyl Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 m.p-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 o-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 Gasoline ND 100 NWTPH-Gx 5-27-15 5-27-15 Surrogate: Percent Recovery Control Limits Fluorobenzene 85 71-113 71-113 Client ID: MW-1-052215 Laboratory ID: 05-223-03 Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 Toluene ND 1.0 EPA 8021B 5-27-15 5-27-15 Ethyl Benzene <t< td=""><td>asoline</td><td>ND</td><td>100</td><td>NWTPH-Gx</td><td>5-27-15</td><td>5-27-15</td><td></td></t<>	asoline	ND	100	NWTPH-Gx	5-27-15	5-27-15	
Client ID: MW-4-052215 Laboratory ID: 05-223-02 Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 Toluene ND 1.0 EPA 8021B 5-27-15 5-27-15 Ethyl Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 m,p-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 o-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 Gasoline ND 100 NWTPH-Gx 5-27-15 5-27-15 Surrogate: Percent Recovery Control Limits Fluorobenzene 85 71-113 Client ID: MW-1-052215 Laboratory ID: 05-223-03 Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 Toluene ND 1.0 EPA 8021B 5-27-15 5-27-15 Ethyl Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 m,p-Xylene ND 1.0 EPA	urrogate:	Percent Recovery	Control Limits				
Description	luorobenzene	85	71-113				
ND	lient ID:	MW-4-052215					
Toluene	aboratory ID:	05-223-02					
Ethyl Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 m,p-Xylene ND 1.0 EPA 8021B 5-27-15 5-2	enzene	ND	1.0	EPA 8021B	5-27-15	5-27-15	
m,p-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 o-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 Gasoline ND 100 NWTPH-Gx 5-27-15 5-27-15 Surrogate: Percent Recovery Control Limits Fluorobenzene 85 71-113 Client ID: MW-1-052215 Laboratory ID: 05-223-03 Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 5-27-15 Ethyl Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 5-27-15 m,p-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 5-27-15 5-27-15 5-27-15 5-27-15 5-27-15 5-27-15 5-27-15 5-27-15 5-27-15 5-27-15 5-27-15 5-27-15 5-27-15 5-27-15 6-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 5-27-15 5-27-15 6-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 5-27-15 6-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 5-27-15 6	oluene	ND	1.0	EPA 8021B	5-27-15	5-27-15	
ND 1.0 EPA 8021B 5-27-15 5-27-15 Gasoline ND 100 NWTPH-Gx 5-27-15 5-27-15 Surrogate: Percent Recovery 85 Control Limits 71-113 Fluorobenzene 85 71-113 Client ID: MW-1-052215 MW-1-052215 Fluorobenzene ND 1.0 EPA 8021B 5-27-15 5-27-15 Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 Toluene ND 1.0 EPA 8021B 5-27-15 5-27-15 Ethyl Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 m,p-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 o-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15	thyl Benzene	ND	1.0	EPA 8021B	5-27-15	5-27-15	
Gasoline ND 100 NWTPH-Gx 5-27-15 5-27-15 Surrogate: Percent Recovery 85 Control Limits 71-113 Co	ı,p-Xylene	ND	1.0	EPA 8021B	5-27-15	5-27-15	
Surrogate: Percent Recovery Control Limits Fluorobenzene 85 71-113 Client ID: MW-1-052215 Laboratory ID: 05-223-03 Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 Toluene ND 1.0 EPA 8021B 5-27-15 5-27-15 Ethyl Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 m,p-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 o-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15	-Xylene	ND	1.0	EPA 8021B	5-27-15	5-27-15	
Fluorobenzene 85 71-113 Client ID: MW-1-052215 Laboratory ID: 05-223-03 Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 Toluene ND 1.0 EPA 8021B 5-27-15 5-27-15 Ethyl Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 m,p-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 o-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15	asoline	ND	100	NWTPH-Gx	5-27-15	5-27-15	
Client ID: MW-1-052215 Laboratory ID: 05-223-03 Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 Toluene ND 1.0 EPA 8021B 5-27-15 5-27-15 Ethyl Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 m,p-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 o-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15	urrogate:	Percent Recovery	Control Limits				
Laboratory ID: 05-223-03 Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 Toluene ND 1.0 EPA 8021B 5-27-15 5-27-15 Ethyl Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 m,p-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 o-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15	luorobenzene	85	71-113				
Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 Toluene ND 1.0 EPA 8021B 5-27-15 5-27-15 Ethyl Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 m,p-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 o-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15	lient ID:	MW-1-052215					
Toluene ND 1.0 EPA 8021B 5-27-15 5-27-15 Ethyl Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 m,p-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 o-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15	aboratory ID:	05-223-03					
Ethyl Benzene ND 1.0 EPA 8021B 5-27-15 5-27-15 m,p-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 o-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15	enzene	ND	1.0	EPA 8021B	5-27-15	5-27-15	
m,p-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15 o-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15	oluene	ND	1.0	EPA 8021B	5-27-15	5-27-15	
o-Xylene ND 1.0 EPA 8021B 5-27-15 5-27-15	thyl Benzene	ND	1.0	EPA 8021B	5-27-15	5-27-15	
· • · · · · · · · · · · · · · · · · · ·	ı,p-Xylene	ND	1.0	EPA 8021B	5-27-15	5-27-15	
Gasoline ND 100 NWTPH-Gv 5-27-15 5-27-15	-Xylene	ND	1.0	EPA 8021B	5-27-15	5-27-15	
Gasoline 100 NW1111-GX 3-21-13 3-21-13	Sasoline	ND	100	NWTPH-Gx	5-27-15	5-27-15	
Surrogate: Percent Recovery Control Limits	urrogate:	Percent Recovery	Control Limits				
Fluorobenzene 85 71-113	luorobenzene	85	71-113				

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NWTPH-Gx/BTEX

Matrix: Water
Units: ug/L (ppb)

			Date	Date	
Result	PQL	Method	Prepared	Analyzed	Flags
RW-1-052215					
05-223-04					
ND	1.0	EPA 8021B	5-27-15	5-27-15	
ND	1.0	EPA 8021B	5-27-15	5-27-15	
ND	1.0	EPA 8021B	5-27-15	5-27-15	
ND	1.0	EPA 8021B	5-27-15	5-27-15	
ND	1.0	EPA 8021B	5-27-15	5-27-15	
ND	100	NWTPH-Gx	5-27-15	5-27-15	
Percent Recovery	Control Limits				
85	71-113				
RW-4-052215					
05-223-05					
ND	1.0	EPA 8021B	5-27-15	5-27-15	
ND	1.0	EPA 8021B	5-27-15	5-27-15	
ND	1.0	EPA 8021B	5-27-15	5-27-15	
ND	1.0	EPA 8021B	5-27-15	5-27-15	
ND	1.0	EPA 8021B	5-27-15	5-27-15	
ND	100	NWTPH-Gx	5-27-15	5-27-15	
Percent Recovery	Control Limits				
	RW-1-052215 05-223-04 ND ND ND ND ND ND ND Percent Recovery 85 RW-4-052215 05-223-05 ND	RW-1-052215 05-223-04 1.0 ND 1.0 ND 1.0 ND 1.0 ND 1.0 ND 100 Percent Recovery 85 Control Limits 71-113 RW-4-052215 05-223-05 ND 1.0 ND 1.0	RW-1-052215 05-223-04 1.0 EPA 8021B ND 100 NWTPH-Gx Percent Recovery 855 Control Limits 71-113 RW-4-052215 05-223-05 Control Limits 71-113 ND 1.0 EPA 8021B ND 1.0 EPA 8021B	Result PQL Method Prepared RW-1-052215 05-223-04 5-27-15 ND 1.0 EPA 8021B 5-27-15 Percent Recovery Recovery Control Limits 85 85 71-113 71-113 RW-4-052215 05-223-05 5-27-15 ND 1.0 EPA 8021B 5-27-15 ND 1.0 NWTPH-GX 5-27-15	Result PQL Method Prepared Analyzed RW-1-052215 05-223-04 5-27-15 5-27-15 ND 1.0 EPA 8021B 5-27-15 5-27-15 ND 100 NWTPH-Gx 5-27-15 5-27-15 Percent Recovery 85 Control Limits 71-113 RW-4-052215 05-223-05 05-223-05 5-27-15 5-27-15 ND 1.0 EPA 8021B 5-27-15 5-27-15

Date of Report: June 3, 2015 Samples Submitted: May 23, 2015 Laboratory Reference: 1505-223

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NWTPH-Gx/BTEX QUALITY CONTROL

Matrix: Water Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0527W1					
Benzene	ND	1.0	EPA 8021B	5-27-15	5-27-15	
Toluene	ND	1.0	EPA 8021B	5-27-15	5-27-15	
Ethyl Benzene	ND	1.0	EPA 8021B	5-27-15	5-27-15	
m,p-Xylene	ND	1.0	EPA 8021B	5-27-15	5-27-15	
o-Xylene	ND	1.0	EPA 8021B	5-27-15	5-27-15	
Gasoline	ND	100	NWTPH-Gx	5-27-15	5-27-15	
_						

Percent Recovery Control Limits Surrogate: Fluorobenzene 86 71-113

					Source	Pe	rcent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Rec	covery	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	05-22	23-01									
	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	86	71-113			
MATRIX SPIKES											
Laboratory ID:	05-22	23-01									
	MS	MSD	MS	MSD		MS	MSD				
Benzene	45.7	46.8	50.0	50.0	ND	91	94	82-120	2	14	
Toluene	46.5	47.3	50.0	50.0	ND	93	95	83-120	2	14	
Ethyl Benzene	46.9	47.8	50.0	50.0	ND	94	96	83-120	2	15	
m,p-Xylene	47.7	48.2	50.0	50.0	ND	95	96	81-123	1	15	
o-Xylene	47.3	47.9	50.0	50.0	ND	95	96	80-120	1	16	
Surrogate:											
Fluorobenzene						85	89	71-113			

NWTPH-Dx

Matrix: Water Units: mg/L (ppm)

. ,				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	RW-5-052215					
Laboratory ID:	05-223-01					
Diesel Range Organics	ND	0.26	NWTPH-Dx	5-29-15	5-29-15	_
Lube Oil Range Organics	ND	0.41	NWTPH-Dx	5-29-15	5-29-15	
Surrogate:	Percent Recovery	Control Limits				_
o-Terphenyl	81	50-150				
Client ID:	MW-4-052215					
Laboratory ID:	05-223-02					
Diesel Range Organics	ND	0.26	NWTPH-Dx	5-29-15	5-29-15	
Lube Oil Range Organics	ND	0.41	NWTPH-Dx	5-29-15	5-29-15	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	80	50-150				
, , , ,						
Client ID:	MW-1-052215					
Laboratory ID:	05-223-03					
Diesel Range Organics	ND	0.26	NWTPH-Dx	5-29-15	5-29-15	
Lube Oil Range Organics	ND	0.41	NWTPH-Dx	5-29-15	5-29-15	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	83	50-150				
Client ID:	RW-1-052215					
Laboratory ID:	05-223-04					
Diesel Range Organics	ND	0.25	NWTPH-Dx	5-29-15	5-29-15	
Lube Oil Range Organics	ND ND	0.25	NWTPH-Dx	5-29-15 5-29-15	5-29-15 5-29-15	
Surrogate:	Percent Recovery	Control Limits	INVVII II-DX	3-29-13	3-29-13	
o-Terphenyl	80	50-150				
о-тегрпенут	00	30-130				
Client ID:	RW-4-052215					
Laboratory ID:	05-223-05					
Diesel Range Organics	ND	0.25	NWTPH-Dx	5-29-15	5-29-15	
Lube Oil Range Organics	ND	0.41	NWTPH-Dx	5-29-15	5-29-15	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	80	50-150				

NWTPH-Dx QUALITY CONTROL

Matrix: Water Units: mg/L (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0529W1					
Diesel Range Organics	ND	0.25	NWTPH-Dx	5-29-15	5-29-15	_
Lube Oil Range Organics	ND	0.40	NWTPH-Dx	5-29-15	5-29-15	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	79	50-150				

					Source	Percent	Recovery		RPD	
Analyte	Re	sult	Spike	Level	Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE										
Laboratory ID:	05-2	31-01								
	ORIG	DUP								
Diesel Range Organics	0.288	0.287	NA	NA		NA	NA	0	NA	
Lube Oil Range	ND	ND	NA	NA		NA	NA	NA	NA	
Surrogate:										
o-Terphenyl						83 83	50-150			

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Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	RW-5-052215					
Laboratory ID:	05-223-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chloromethane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Vinyl Chloride	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromomethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chloroethane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Iodomethane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Methylene Chloride	ND	1.0	EPA 8260C	5-27-15	5-27-15	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromochloromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chloroform	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Trichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Dibromomethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromodichloromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
2-Chloroethyl Vinyl Ether	ND	1.5	EPA 8260C	5-27-15	5-27-15	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-27-15	5-27-15	

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4-Bromofluorobenzene

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	RW-5-052215					
Laboratory ID:	05-223-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Tetrachloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Dibromochloromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromoform	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Bromobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Hexachlorobutadiene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	115	79-131				
Toluene-d8	107	80-120				

80-120

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Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-4-052215					
Laboratory ID:	05-223-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chloromethane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Vinyl Chloride	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromomethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chloroethane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Iodomethane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Methylene Chloride	ND	1.0	EPA 8260C	5-27-15	5-27-15	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromochloromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chloroform	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Trichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Dibromomethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromodichloromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
2-Chloroethyl Vinyl Ether	ND	1.5	EPA 8260C	5-27-15	5-27-15	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-27-15	5-27-15	

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-4-052215					
Laboratory ID:	05-223-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Tetrachloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Dibromochloromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromoform	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Bromobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Hexachlorobutadiene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Surrogate:	Percent Recovery	Control Limits	_	_		
Dibromofluoromethane	118	79-131				
Toluene-d8	107	80-120				

Toluene-d8 80-120 107 4-Bromofluorobenzene 96 80-120

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Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-1-052215					
Laboratory ID:	05-223-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chloromethane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Vinyl Chloride	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromomethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chloroethane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Iodomethane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Methylene Chloride	ND	1.0	EPA 8260C	5-27-15	5-27-15	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromochloromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chloroform	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Trichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Dibromomethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromodichloromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
2-Chloroethyl Vinyl Ether	ND	1.5	EPA 8260C	5-27-15	5-27-15	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-27-15	5-27-15	

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4-Bromofluorobenzene

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-1-052215					
Laboratory ID:	05-223-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Tetrachloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Dibromochloromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromoform	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Bromobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Hexachlorobutadiene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	115	79-131				
Toluene-d8	108	80-120				

80-120

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Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	RW-1-052215					
Laboratory ID:	05-223-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chloromethane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Vinyl Chloride	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromomethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chloroethane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Iodomethane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Methylene Chloride	ND	1.0	EPA 8260C	5-27-15	5-27-15	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromochloromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chloroform	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Trichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Dibromomethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromodichloromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
2-Chloroethyl Vinyl Ether	ND	1.5	EPA 8260C	5-27-15	5-27-15	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-27-15	5-27-15	

HALOGENATED VOLATILES EPA 8260C page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	RW-1-052215					
Laboratory ID:	05-223-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Tetrachloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Dibromochloromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromoform	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Bromobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Hexachlorobutadiene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	116	79-131				
Toluene-d8	107	80-120				
4-Bromofluorobenzene	99	80-120				

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Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	RW-4-052215					
Laboratory ID:	05-223-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chloromethane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Vinyl Chloride	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromomethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chloroethane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Iodomethane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Methylene Chloride	ND	1.0	EPA 8260C	5-27-15	5-27-15	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromochloromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chloroform	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Trichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Dibromomethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromodichloromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
2-Chloroethyl Vinyl Ether	ND	1.5	EPA 8260C	5-27-15	5-27-15	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-27-15	5-27-15	

4-Bromofluorobenzene

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	RW-4-052215					
Laboratory ID:	05-223-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Tetrachloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Dibromochloromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromoform	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Bromobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Hexachlorobutadiene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	116	79-131				
Toluene-d8	110	80-120				

80-120

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HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

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Matrix: Water Units: ug/L

omis. ug/L				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0527W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chloromethane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Vinyl Chloride	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromomethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chloroethane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Iodomethane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Methylene Chloride	ND	1.0	EPA 8260C	5-27-15	5-27-15	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromochloromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chloroform	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Trichloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Dibromomethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromodichloromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
2-Chloroethyl Vinyl Ether	ND	1.5	EPA 8260C	5-27-15	5-27-15	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-27-15	5-27-15	

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HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0527W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Tetrachloroethene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Dibromochloromethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Chlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Bromoform	ND	1.0	EPA 8260C	5-27-15	5-27-15	
Bromobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-27-15	5-27-15	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-27-15	5-27-15	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Hexachlorobutadiene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-27-15	5-27-15	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	112	79-131				
Toluene-d8	107	80-120				
4-Bromofluorobenzene	94	80-120				

Project: 1432-001

HALOGENATED VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

Matrix: Water Units: ug/L

					Per	cent	Recovery		RPD	
Analyte	Result		Spike	Level	Reco	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB052	27W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	10.8	10.5	10.0	10.0	108	105	64-138	3	16	
Benzene	10.6	10.5	10.0	10.0	106	105	76-125	1	14	
Trichloroethene	10.0	9.91	10.0	10.0	100	99	70-125	1	16	
Toluene	10.0	10.0	10.0	10.0	100	100	75-125	0	15	
Chlorobenzene	9.04	8.81	10.0	10.0	90	88	80-140	3	15	
Surrogate:										
Dibromofluoromethane					111	110	79-131			
Toluene-d8					105	107	80-120			
4-Bromofluorobenzene					96	95	80-120			

TOTAL LEAD EPA 200.8

Matrix: Water Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	EPA Method	Prepared	Analyzed	Flags
Lab ID:	05-223-01					
Client ID:	RW-5-052215					
Lead	ND	1.1	200.8	6-2-15	6-2-15	
Lab ID:	05-223-02					
Client ID:	MW-4-052215					
Lead	ND	1.1	200.8	6-2-15	6-2-15	
Lab ID: Client ID:	05-223-03 MW-1-052215					
Lead	ND	1.1	200.8	6-2-15	6-2-15	
Lab ID:	05-223-04					
Client ID:	RW-1-052215					
Lead	ND	1.1	200.8	6-2-15	6-2-15	
Lab ID:	05-223-05					
Client ID:	RW-4-052215					
Lead	ND	1.1	200.8	6-2-15	6-2-15	

Project: 1432-001

TOTAL LEAD EPA 200.8 METHOD BLANK QUALITY CONTROL

Date Extracted: 6-2-15
Date Analyzed: 6-2-15

Matrix: Water Units: ug/L (ppb)

Lab ID: MB0602WM2

Analyte Method Result PQL

Lead 200.8 **ND** 1.1

Project: 1432-001

TOTAL LEAD EPA 200.8 DUPLICATE QUALITY CONTROL

Date Extracted: 6-2-15
Date Analyzed: 6-2-15

Matrix: Water
Units: ug/L (ppb)

Lab ID: 05-256-01

Sample Duplicate
Analyte Result Result RPD PQL Flags
Lead ND ND NA 1.1

Project: 1432-001

TOTAL LEAD EPA 200.8 MS/MSD QUALITY CONTROL

Date Extracted: 6-2-15
Date Analyzed: 6-2-15

Matrix: Water
Units: ug/L (ppb)

Lab ID: 05-256-01

	Spike		Percent		Percent		
Analyte	Level	MS	Recovery	MSD	Recovery	RPD	Flags
Lead	111	106	95	104	94	2	

Project: 1432-001

DISSOLVED LEAD EPA 200.8

Matrix: Water Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	EPA Method	Prepared	Analyzed	Flags
Lab ID:	05-223-01					
Client ID:	RW-5-052215					
Lead	ND	1.0	200.8	5-26-15	5-29-15	
Lab ID:	05-223-02					
Client ID:	MW-4-052215					
Lead	ND	1.0	200.8	5-26-15	5-29-15	
Lab ID:	05-223-03					
Client ID:	MW-1-052215					
Lead	ND	1.0	200.8	5-26-15	5-29-15	
Lab ID:	05-223-04					
Client ID:	RW-1-052215					
Lead	ND	1.0	200.8	5-26-15	5-29-15	
Lab ID:	05-223-05					
Client ID:	RW-4-052215					
Lead	ND	1.0	200.8	5-26-15	5-29-15	

Project: 1432-001

DISSOLVED LEAD EPA 200.8 METHOD BLANK QUALITY CONTROL

Date Filtered: 5-26-15
Date Analyzed: 5-29-15

Matrix: Water Units: ug/L (ppb)

Lab ID: MB0526F1

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

Project: 1432-001

DISSOLVED LEAD EPA 200.8 DUPLICATE QUALITY CONTROL

Date Analyzed: 5-29-15

Matrix: Water
Units: ug/L (ppb)

Lab ID: 05-202-04

Sample Duplicate

Analyte Result Result RPD PQL Flags

Lead ND ND NA 1.0

Project: 1432-001

DISSOLVED LEAD EPA 200.8 MS/MSD QUALITY CONTROL

Date Analyzed: 5-29-15

Matrix: Water
Units: ug/L (ppb)

Lab ID: 05-202-04

	Spike		Percent		Percent		
Analyte	Level	MS	Recovery	MSD	Recovery	RPD	Flags
Lead	200	189	95	190	95	0	



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 _____ of _____

	Analytical Laboratory Testing Services 14648 NE 95th Street ● Redmond, WA 98052 Phone: (425) 883-3881 ● www.onsite-env.com		Turnaround R (in working			L	Labo	orat	ory	Nu	mb	er:							0	5	-2	22	3			
Project	Farallon Consulting thumber: 1432-001 the Name: Kellogg's Korner the Manager: Joe Rounds led by: Jerome Chen	☐ 2 [X] S (1)	tandard (7 Day PH analysis 5 (othe	1 Da 3 Da ys) Days)		NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level 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	Total Lead	Dissolved Lead			% Moisture
ab ID		Sample Sample	ed Sample							Volat	Halo	Semi (with	PAH	PCB	Orga	Organ	Chlor	Total	Total	TCLF	HEM	-				% W
ı	RW-5-052215	5/22		-	9		X		X		X			//								X	X			
2	MW-4-052215		1317																							
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14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

November 19, 2015

Joe Rounds Farallon Consulting, LLC 975 5th Avenue NW Issaquah, WA 98027

Re: Analytical Data for Project 1432-001

Laboratory Reference No. 1511-086

Dear Joe:

Enclosed are the analytical results and associated quality control data for samples submitted on November 11, 2015.

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

Laboratory Reference: 1511-086

Project: 1432-001

Case Narrative

Samples were collected on November 9, 2015 and received by the laboratory on November 11, 2015. 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 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

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.

The MTCA Method A cleanup level for EDB for sample FB-14-12.0-111015 is non-achievable due to the necessary dilution of the sample.

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.

Laboratory Reference: 1511-086

Project: 1432-001

NWTPH-Gx/BTEX

Matrix: Soil

Client ID:					Date	Date	
Benzene	Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Benzene	Client ID:	FB-6-11.0-110915					
Toluene	Laboratory ID:	11-086-03					
The box The	Benzene	ND	0.020	EPA 8021B	11-13-15	11-13-15	
ND	Toluene	ND	0.073	EPA 8021B	11-13-15	11-13-15	
December ND 0.073 EPA 8021B 11-13-15 11-13-	Ethyl Benzene	ND	0.073	EPA 8021B	11-13-15	11-13-15	
Sarrogate:	m,p-Xylene	ND	0.073	EPA 8021B	11-13-15	11-13-15	
Percent Recovery Control Limits Fluorobenzene Percent Recovery Control Limits Fluorobenzene Percent Recovery Control Limits FB-6-15.3-110915	o-Xylene	ND	0.073	EPA 8021B	11-13-15	11-13-15	
Fluorobenzene 94 68-129 68-129	Gasoline	ND	7.3	NWTPH-Gx	11-13-15	11-13-15	
Client ID: FB-6-15.3-110915 Laboratory ID: 11-086-04 Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.065 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.065 EPA 8021B 11-13-15 11-13-15 Edasoline ND 0.065 EPA 8021B 11-13-15 11-13-15 Exurogate: Percent Recovery Control Limits Fluorobenzene 112 68-129 Client ID: FB-7-11.5-110915 Laboratory ID: 11-086-05 Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.071 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.071 EPA 8021B 11-13-15 11-13-15 En,p-Xylene 0.13 0.071 EPA 8021B 11-13-15 11-13-15 En,p-Xylene ND 0.071 EPA 8021B 11-13-15 11-13-15 Edasoline 31 7.1 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	Surrogate:	Percent Recovery	Control Limits				
Laboratory D:	Fluorobenzene	94	68-129				
ND	Client ID:	FB-6-15.3-110915					
Toluene	Laboratory ID:	11-086-04					
Ethyl Benzene ND 0.065 EPA 8021B 11-13-15 11-13-15 m,p-Xylene ND 0.065 EPA 8021B 11-13-15 11-13-15 o-Xylene ND 0.065 EPA 8021B 11-13-15 11-13-15	Benzene	ND	0.020	EPA 8021B	11-13-15	11-13-15	
ND	Toluene	ND	0.065	EPA 8021B	11-13-15	11-13-15	
ND 0.065 EPA 8021B 11-13-15 11-13-15 Gasoline ND 6.5 NWTPH-Gx 11-13-15 11-13-15 Surrogate:	Ethyl Benzene	ND	0.065	EPA 8021B	11-13-15	11-13-15	
Gasoline ND 6.5 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits Fluorobenzene 112 68-129 Client ID: FB-7-11.5-110915 FB-7-11.5-110915 Laboratory ID: 11-086-05 Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.071 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.071 EPA 8021B 11-13-15 11-13-15 m,p-Xylene 0.13 0.071 EPA 8021B 11-13-15 11-13-15 o-Xylene ND 0.071 EPA 8021B 11-13-15 11-13-15 Gasoline 31 7.1 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	m,p-Xylene	ND	0.065	EPA 8021B	11-13-15	11-13-15	
Surrogate: Percent Recovery Control Limits Fluorobenzene 112 68-129 Client ID: FB-7-11.5-110915 Laboratory ID: 11-086-05 Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.071 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.071 EPA 8021B 11-13-15 11-13-15 m,p-Xylene 0.13 0.071 EPA 8021B 11-13-15 11-13-15 o-Xylene ND 0.071 EPA 8021B 11-13-15 11-13-15 Gasoline 31 7.1 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	o-Xylene	ND	0.065	EPA 8021B	11-13-15	11-13-15	
Fluorobenzene 112 68-129 Client ID: FB-7-11.5-110915 Laboratory ID: 11-086-05 Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.071 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.071 EPA 8021B 11-13-15 11-13-15 m,p-Xylene 0.13 0.071 EPA 8021B 11-13-15 11-13-15 o-Xylene ND 0.071 EPA 8021B 11-13-15 11-13-15 Gasoline 31 7.1 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	Gasoline	ND	6.5	NWTPH-Gx	11-13-15	11-13-15	
Client ID: FB-7-11.5-110915 Laboratory ID: 11-086-05 Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.071 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.071 EPA 8021B 11-13-15 11-13-15 m,p-Xylene 0.13 0.071 EPA 8021B 11-13-15 11-13-15 o-Xylene ND 0.071 EPA 8021B 11-13-15 11-13-15 Gasoline 31 7.1 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	Surrogate:	Percent Recovery	Control Limits				
Laboratory ID: 11-086-05 Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.071 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.071 EPA 8021B 11-13-15 11-13-15 m,p-Xylene 0.13 0.071 EPA 8021B 11-13-15 11-13-15 o-Xylene ND 0.071 EPA 8021B 11-13-15 11-13-15 Gasoline 31 7.1 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	Fluorobenzene	112	68-129				
Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.071 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.071 EPA 8021B 11-13-15 11-13-15 m,p-Xylene 0.13 0.071 EPA 8021B 11-13-15 11-13-15 o-Xylene ND 0.071 EPA 8021B 11-13-15 11-13-15 Gasoline 31 7.1 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	Client ID:	FB-7-11.5-110915					
ND 0.071 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.071 EPA 8021B 11-13-15 11-13-15 m,p-Xylene 0.13 0.071 EPA 8021B 11-13-15 11-13-15 o-Xylene ND 0.071 EPA 8021B 11-13-15 11-13-15 Gasoline 31 7.1 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	Laboratory ID:	11-086-05					
Ethyl Benzene ND 0.071 EPA 8021B 11-13-15 11-13-15 m,p-Xylene 0.13 0.071 EPA 8021B 11-13-15 11-13-15 o-Xylene ND 0.071 EPA 8021B 11-13-15 11-13-15 Gasoline 31 7.1 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	Benzene	ND	0.020	EPA 8021B	11-13-15	11-13-15	
m,p-Xylene	Toluene	ND	0.071	EPA 8021B	11-13-15	11-13-15	
O-Xylene ND 0.071 EPA 8021B 11-13-15 11-13-15 Gasoline 31 7.1 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	Ethyl Benzene	ND	0.071	EPA 8021B	11-13-15	11-13-15	
ND 0.071 EPA 8021B 11-13-15 11-13-15 Gasoline 31 7.1 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	m,p-Xylene	0.13	0.071	EPA 8021B	11-13-15	11-13-15	
Surrogate: Percent Recovery Control Limits	o-Xylene	ND	0.071	EPA 8021B	11-13-15	11-13-15	
·	Gasoline	31	7.1	NWTPH-Gx	11-13-15	11-13-15	
Fluorobenzene 104 68-129	Surrogate:	Percent Recovery	Control Limits				
	Fluorobenzene	104	68-129				

Laboratory Reference: 1511-086

Project: 1432-001

NWTPH-Gx/BTEX

Matrix: Soil

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FB-7-15.5-110915					_
Laboratory ID:	11-086-06					
Benzene	ND	0.020	EPA 8021B	11-13-15	11-13-15	
Toluene	ND	0.069	EPA 8021B	11-13-15	11-13-15	
Ethyl Benzene	ND	0.069	EPA 8021B	11-13-15	11-13-15	
m,p-Xylene	ND	0.069	EPA 8021B	11-13-15	11-13-15	
o-Xylene	ND	0.069	EPA 8021B	11-13-15	11-13-15	
Gasoline	ND	6.9	NWTPH-Gx	11-13-15	11-13-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	106	68-129				
Client ID:	FB-8-10.3-110915					
Laboratory ID:	11-086-08					
Gasoline	ND	13	NWTPH-Gx	11-13-15	11-13-15	
Surrogate:	Percent Recovery	Control Limits				_
Fluorobenzene	95	68-129				
Client ID:	FB-8-15.0-110915					
Laboratory ID:	11-086-10					
Benzene	ND	0.020	EPA 8021B	11-13-15	11-13-15	
Toluene	ND	0.063	EPA 8021B	11-13-15	11-13-15	
Ethyl Benzene	ND	0.063	EPA 8021B	11-13-15	11-13-15	
m,p-Xylene	ND	0.063	EPA 8021B	11-13-15	11-13-15	
o-Xylene	ND	0.063	EPA 8021B	11-13-15	11-13-15	
Gasoline	ND	6.3	NWTPH-Gx	11-13-15	11-13-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	114	68-129				
Client ID:	FB-9-10.3-110915					
Laboratory ID:	11-086-12					
Gasoline	ND	6.0	NWTPH-Gx	11-13-15	11-13-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	99	68-129				
Gasoline Surrogate:	ND Percent Recovery	Control Limits	NWTPH-Gx	11-13-15	11-13-15	

Laboratory Reference: 1511-086

Project: 1432-001

NWTPH-Gx/BTEX

Matrix: Soil

The color of the					Date	Date	
Description	Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Benzene	Client ID:	FB-9-16.0-110915					
Toluene ND 0.065 EPA 8021B 11-13-15 11-13-15	Laboratory ID:	11-086-14					
Ethyl Benzene	Benzene	ND	0.020	EPA 8021B	11-13-15	11-13-15	
ND	Toluene	ND	0.065	EPA 8021B	11-13-15	11-13-15	
December ND 0.065 EPA 8021B 11-13-15 11-13-	Ethyl Benzene	ND	0.065	EPA 8021B	11-13-15	11-13-15	
ND 6.5 NWTPH-Gx 11-13-15 11-13-15	m,p-Xylene	ND	0.065	EPA 8021B	11-13-15	11-13-15	
Percent Recovery Control Limits	o-Xylene	ND	0.065	EPA 8021B	11-13-15	11-13-15	
Client ID: FB-10-10.1-110915	Gasoline	ND	6.5	NWTPH-Gx	11-13-15	11-13-15	
Client ID: FB-10-10.1-110915 Laboratory ID: 11-086-17 Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.078 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.078 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.078 EPA 8021B 11-13-15 11-13-15 Emp-Xylene ND 0.078 EPA 8021B 11-13-15 11-13-15 EASURING ND 0.078 EPA 8021B 11-13-15 11-13-15 EASURING ND 0.078 EPA 8021B 11-13-15 11-13-15 EASURING ND 7.8 NWTPH-Gx 11-13-15 11-13-15 EASURING SURING SERVICE	Surrogate:	Percent Recovery	Control Limits				
Aboratory D:	Fluorobenzene	104	68-129				
ND	Client ID:	FB-10-10.1-110915					
ND	Laboratory ID:	11-086-17					
Ethyl Benzene ND 0.078 EPA 8021B 11-13-15 11-13-	Benzene	ND	0.020	EPA 8021B	11-13-15	11-13-15	
ND 0.078 EPA 8021B 11-13-15 11-13-15 11-13-15 O-Xylene ND 0.078 EPA 8021B 11-13-15 11-13-15 I1-13-15 O-Xylene ND 7.8 NWTPH-Gx 11-13-15 I1-13-15 I1-13-15 O-Xylene Percent Recovery Control Limits O-Xylene 98 68-129 O-Xylene O-Xylene O-Xylene O-Xylene O-Xylene O-Xylene ND O-Xylene N	Toluene	ND	0.078	EPA 8021B	11-13-15	11-13-15	
ND 0.078 EPA 8021B 11-13-15 11-13-15 11-13-15 Surrogate: Percent Recovery Percent Percent Percent Percent Percent Percent Percent Percent Percent P	Ethyl Benzene	ND	0.078	EPA 8021B	11-13-15	11-13-15	
Gasoline ND 7.8 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits Fluorobenzene 98 68-129 Client ID: FB-10-15.0-110915 Laboratory ID: 11-086-19 Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.061 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.061 EPA 8021B 11-13-15 11-13-15 m,p-Xylene ND 0.061 EPA 8021B 11-13-15 11-13-15 co-Xylene ND 0.061 EPA 8021B 11-13-15 11-13-15 Gasoline ND 6.1 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	m,p-Xylene	ND	0.078	EPA 8021B	11-13-15	11-13-15	
Surrogate: Percent Recovery Control Limits Fluorobenzene 98 68-129 Client ID: FB-10-15.0-110915 Laboratory ID: 11-086-19 Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.061 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.061 EPA 8021B 11-13-15 11-13-15 m,p-Xylene ND 0.061 EPA 8021B 11-13-15 11-13-15 o-Xylene ND 0.061 EPA 8021B 11-13-15 11-13-15 Gasoline ND 6.1 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	o-Xylene	ND	0.078	EPA 8021B	11-13-15	11-13-15	
Client ID: FB-10-15.0-110915 Laboratory ID: 11-086-19 Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.061 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.061 EPA 8021B 11-13-15 11-13-15 m,p-Xylene ND 0.061 EPA 8021B 11-13-15 11-13-15 m,p-Xylene ND 0.061 EPA 8021B 11-13-15 11-13-15 D-Xylene ND 0.061 EPA 8021B 11-13-15 11-13-15 Gasoline ND 0.061 EPA 8021B 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	Gasoline	ND	7.8	NWTPH-Gx	11-13-15	11-13-15	
Client ID: FB-10-15.0-110915 Laboratory ID: 11-086-19 Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.061 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.061 EPA 8021B 11-13-15 11-13-15 m,p-Xylene ND 0.061 EPA 8021B 11-13-15 11-13-15 bo-Xylene ND 0.061 EPA 8021B 11-13-15 11-13-15 Gasoline ND 0.061 EPA 8021B 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	Surrogate:	Percent Recovery	Control Limits				
Laboratory ID: 11-086-19 Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.061 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.061 EPA 8021B 11-13-15 11-13-15 m,p-Xylene ND 0.061 EPA 8021B 11-13-15 11-13-15 p-Xylene ND 0.061 EPA 8021B 11-13-15 11-13-15 Gasoline ND 6.1 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	Fluorobenzene	98	68-129				
Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.061 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.061 EPA 8021B 11-13-15 11-13-15 m,p-Xylene ND 0.061 EPA 8021B 11-13-15 11-13-15 o-Xylene ND 0.061 EPA 8021B 11-13-15 11-13-15 Gasoline ND 6.1 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	Client ID:	FB-10-15.0-110915					
ND 0.061 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.061 EPA 8021B 11-13-15 11-13-15 m,p-Xylene ND 0.061 EPA 8021B 11-13-15 11-13-15 o-Xylene ND 0.061 EPA 8021B 11-13-15 11-13-15 Gasoline ND 6.1 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	Laboratory ID:	11-086-19					
ND 0.061 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.061 EPA 8021B 11-13-15 11-13-15 m,p-Xylene ND 0.061 EPA 8021B 11-13-15 11-13-15 o-Xylene ND 0.061 EPA 8021B 11-13-15 11-13-15 Gasoline ND 6.1 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	Benzene	ND	0.020	EPA 8021B	11-13-15	11-13-15	
m,p-Xylene	Toluene	ND	0.061	EPA 8021B	11-13-15		
m,p-Xylene	Ethyl Benzene	ND	0.061	EPA 8021B	11-13-15	11-13-15	
D-Xylene ND 0.061 EPA 8021B 11-13-15 11-13-15 Gasoline ND 6.1 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	m,p-Xylene	ND	0.061	EPA 8021B	11-13-15	11-13-15	
Gasoline ND 6.1 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	o-Xylene	ND	0.061	EPA 8021B	11-13-15	11-13-15	
•	Gasoline	ND	6.1	NWTPH-Gx	11-13-15	11-13-15	
Fluorobenzene 102 68-129	Surrogate:	Percent Recovery	Control Limits				
	Fluorobenzene	102	68-129				

Laboratory Reference: 1511-086

Project: 1432-001

NWTPH-Gx/BTEX

Matrix: Soil

Client ID:					Date	Date	
Data	Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Benzene	Client ID:	FB-11-10.0-111015					
Toluene	Laboratory ID:	11-086-20					
Ethyl Benzene	Benzene	ND	0.020	EPA 8021B	11-13-15	11-13-15	
ND	Toluene	ND	0.062	EPA 8021B	11-13-15	11-13-15	
December ND 0.062 EPA 8021B 11-13-15 11-13-	Ethyl Benzene	ND	0.062	EPA 8021B	11-13-15	11-13-15	
Sasoline ND 6.2 NWTPH-Gx 11-13-15 11-13-15	m,p-Xylene	ND	0.062	EPA 8021B	11-13-15	11-13-15	
Client ID: FB-11-13.5-111015	o-Xylene	ND	0.062	EPA 8021B	11-13-15	11-13-15	
Client ID: FB-11-13.5-111015	Gasoline	ND	6.2	NWTPH-Gx	11-13-15	11-13-15	
Client ID: FB-11-13.5-111015 Laboratory ID: 11-086-22 Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.064 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.064 EPA 8021B 11-13-15 11-13-15 Ethylene ND 0.064 EPA 8021B 11-13-15 11-13-15 Edasoline ND 6.4 NWTPH-Gx 11-13-15 11-13-15 Edasoline ND 6.4 NWTPH-Gx 11-13-15 11-13-15 Edaboratory ID: 11-086-23 Eenzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.067 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.067 EPA 8021B 11-13-15 11-13-15 Enp-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 Enp-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 Edasoline ND 0.067 EPA 8021B 11-	Surrogate:	Percent Recovery	Control Limits				
Senzene ND 0.020 EPA 8021B 11-13-15 11-13-1	Fluorobenzene	100	68-129				
ND	Client ID:	FB-11-13.5-111015					
Toluene	Laboratory ID:	11-086-22					
Ethyl Benzene ND 0.064 EPA 8021B 11-13-15 11-13-15 m,p-Xylene ND 0.064 EPA 8021B 11-13-15 11-13-15 11-13-15 0-Xylene ND 0.064 EPA 8021B 11-13-15 11-13-15 11-13-15 0-Xylene ND 0.064 EPA 8021B 11-13-15 11-13-15 0-Xylene ND 6.4 NWTPH-Gx 11-13-15 11-13-15 0-Xylene ND 6.4 NWTPH-Gx 11-13-15 11-13-15 0-Xylene ND 0.020 EPA 8021B 11-13-15 11-13-15 11-13-15 0-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 11-13-15 0-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 11-13-15 0-Xylene ND 0.067 EPA	Benzene	ND	0.020	EPA 8021B	11-13-15	11-13-15	
ND	Toluene	ND	0.064	EPA 8021B	11-13-15	11-13-15	
ND 0.064 EPA 8021B 11-13-15 11-13-15 Gasoline ND 6.4 NWTPH-Gx 11-13-15 11-13-15 Surrogate:	Ethyl Benzene	ND	0.064	EPA 8021B	11-13-15	11-13-15	
Gasoline ND 6.4 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery 105 Control Limits 68-129 Control Limits Client ID: FB-12-10.0-111015 FB-12-10.0-111015 Laboratory ID: 11-086-23 Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.067 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.067 EPA 8021B 11-13-15 11-13-15 m,p-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 co-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 Gasoline ND 6.7 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	m,p-Xylene	ND	0.064	EPA 8021B	11-13-15	11-13-15	
Surrogate: Percent Recovery Control Limits Fluorobenzene 105 68-129 Client ID: FB-12-10.0-111015 Laboratory ID: 11-086-23 Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.067 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.067 EPA 8021B 11-13-15 11-13-15 m,p-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 o-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 Gasoline ND 6.7 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	o-Xylene	ND	0.064	EPA 8021B	11-13-15	11-13-15	
Client ID: FB-12-10.0-111015 Laboratory ID: 11-086-23 Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.067 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.067 EPA 8021B 11-13-15 11-13-15 m,p-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 m,p-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 D-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 Gasoline ND 0.067 EPA 8021B 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	Gasoline	ND	6.4	NWTPH-Gx	11-13-15	11-13-15	
Client ID: FB-12-10.0-111015 Laboratory ID: 11-086-23 Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.067 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.067 EPA 8021B 11-13-15 11-13-15 m,p-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 by-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 cy-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 Gasoline ND 6.7 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	Surrogate:	Percent Recovery	Control Limits				
Laboratory ID: 11-086-23 Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.067 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.067 EPA 8021B 11-13-15 11-13-15 m,p-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 o-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 Gasoline ND 6.7 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	Fluorobenzene	105	68-129				
Benzene ND 0.020 EPA 8021B 11-13-15 11-13-15 Toluene ND 0.067 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.067 EPA 8021B 11-13-15 11-13-15 m,p-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 o-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 Gasoline ND 6.7 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	Client ID:	FB-12-10.0-111015					
ND 0.067 EPA 8021B 11-13-15 11-13-15 Ethyl Benzene ND 0.067 EPA 8021B 11-13-15 11-13-15 m,p-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 p-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 Gasoline ND 6.7 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	Laboratory ID:	11-086-23					
Ethyl Benzene ND 0.067 EPA 8021B 11-13-15 11-13-15 m,p-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 p-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 Gasoline ND 6.7 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	Benzene	ND	0.020	EPA 8021B	11-13-15	11-13-15	
m,p-Xylene	Toluene	ND	0.067	EPA 8021B	11-13-15	11-13-15	
m,p-Xylene	Ethyl Benzene	ND	0.067	EPA 8021B	11-13-15	11-13-15	
D-Xylene ND 0.067 EPA 8021B 11-13-15 11-13-15 Gasoline ND 6.7 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	m,p-Xylene	ND	0.067	EPA 8021B	11-13-15	11-13-15	
Gasoline ND 6.7 NWTPH-Gx 11-13-15 11-13-15 Surrogate: Percent Recovery Control Limits	o-Xylene	ND	0.067	EPA 8021B	11-13-15	11-13-15	
Surrogate: Percent Recovery Control Limits	Gasoline	ND	6.7	NWTPH-Gx	11-13-15	11-13-15	
·	Surrogate:	Percent Recovery	Control Limits				
	Fluorobenzene	•	68-129				

Laboratory Reference: 1511-086

Project: 1432-001

NWTPH-Gx/BTEX

Matrix: Soil

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FB-12-16.7-111015					
Laboratory ID:	11-086-25					
Benzene	ND	0.020	EPA 8021B	11-13-15	11-13-15	
Toluene	ND	0.061	EPA 8021B	11-13-15	11-13-15	
Ethyl Benzene	ND	0.061	EPA 8021B	11-13-15	11-13-15	
m,p-Xylene	ND	0.061	EPA 8021B	11-13-15	11-13-15	
o-Xylene	ND	0.061	EPA 8021B	11-13-15	11-13-15	
Gasoline	ND	6.1	NWTPH-Gx	11-13-15	11-13-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	102	68-129				
Client ID:	FB-13-13.8-111015					
Laboratory ID:	11-086-26					
Benzene	ND	0.020	EPA 8021B	11-13-15	11-13-15	_
Toluene	ND	0.068	EPA 8021B	11-13-15	11-13-15	
Ethyl Benzene	ND	0.068	EPA 8021B	11-13-15	11-13-15	
m,p-Xylene	ND	0.068	EPA 8021B	11-13-15	11-13-15	
o-Xylene	ND	0.068	EPA 8021B	11-13-15	11-13-15	
Gasoline	ND	6.8	NWTPH-Gx	11-13-15	11-13-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	101	68-129				
Client ID:	FB-13-10.0-111015					
Laboratory ID:	11-086-28					
Benzene	ND	0.020	EPA 8021B	11-13-15	11-13-15	
Toluene	ND	0.070	EPA 8021B	11-13-15	11-13-15	
Ethyl Benzene	ND	0.070	EPA 8021B	11-13-15	11-13-15	
m,p-Xylene	ND	0.070	EPA 8021B	11-13-15	11-13-15	
o-Xylene	ND	0.070	EPA 8021B	11-13-15	11-13-15	
Gasoline	ND	7.0	NWTPH-Gx	11-13-15	11-13-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	104	68-129				
Client ID:	FB-14-12.0-111015					
Laboratory ID:	11-086-29					
Gasoline	ND	5.9	NWTPH-Gx	11-13-15	11-13-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	97	68-129				

Laboratory Reference: 1511-086

Project: 1432-001

NWTPH-Gx/BTEX

Matrix: Soil

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FB-14-17.7-111015					
Laboratory ID:	11-086-31					
Benzene	ND	0.020	EPA 8021B	11-13-15	11-13-15	
Toluene	ND	0.055	EPA 8021B	11-13-15	11-13-15	
Ethyl Benzene	ND	0.055	EPA 8021B	11-13-15	11-13-15	
m,p-Xylene	ND	0.055	EPA 8021B	11-13-15	11-13-15	
o-Xylene	ND	0.055	EPA 8021B	11-13-15	11-13-15	
Gasoline	ND	5.5	NWTPH-Gx	11-13-15	11-13-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	100	68-129				
Client ID:	FB-15-16.0-111015					
Laboratory ID:	11-086-34					
Benzene	ND	0.020	EPA 8021B	11-13-15	11-13-15	
Toluene	ND	0.071	EPA 8021B	11-13-15	11-13-15	
Ethyl Benzene	ND	0.071	EPA 8021B	11-13-15	11-13-15	
m,p-Xylene	ND	0.071	EPA 8021B	11-13-15	11-13-15	
o-Xylene	ND	0.071	EPA 8021B	11-13-15	11-13-15	
Gasoline	ND	7.1	NWTPH-Gx	11-13-15	11-13-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	102	68-129				
Client ID:	FB-15-10.0-111015					
Laboratory ID:	11-086-35					
Benzene	ND	0.020	EPA 8021B	11-13-15	11-13-15	
Toluene	ND	0.073	EPA 8021B	11-13-15	11-13-15	
Ethyl Benzene	ND	0.073	EPA 8021B	11-13-15	11-13-15	
m,p-Xylene	ND	0.073	EPA 8021B	11-13-15	11-13-15	
o-Xylene	ND	0.073	EPA 8021B	11-13-15	11-13-15	
Gasoline	ND	7.3	NWTPH-Gx	11-13-15	11-13-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	100	68-129				

Laboratory Reference: 1511-086

Project: 1432-001

NWTPH-Gx/BTEX METHOD BLANK QUALITY CONTROL

Matrix: Soil

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1113S3					
Benzene	ND	0.020	EPA 8021B	11-13-15	11-13-15	
Toluene	ND	0.050	EPA 8021B	11-13-15	11-13-15	
Ethyl Benzene	ND	0.050	EPA 8021B	11-13-15	11-13-15	
m,p-Xylene	ND	0.050	EPA 8021B	11-13-15	11-13-15	
o-Xylene	ND	0.050	EPA 8021B	11-13-15	11-13-15	
Gasoline	ND	5.0	NWTPH-Gx	11-13-15	11-13-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	95	68-129				
Laboratory ID:	MB1113S4					
Benzene	ND	0.020	EPA 8021B	11-13-15	11-16-15	
Toluene	ND	0.050	EPA 8021B	11-13-15	11-16-15	
Ethyl Benzene	ND	0.050	EPA 8021B	11-13-15	11-16-15	
m,p-Xylene	ND	0.050	EPA 8021B	11-13-15	11-16-15	
o-Xylene	ND	0.050	EPA 8021B	11-13-15	11-16-15	
Gasoline	ND	5.0	NWTPH-Gx	11-13-15	11-16-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	92	68-129				

Laboratory Reference: 1511-086

Project: 1432-001

NWTPH-Gx/BTEX QUALITY CONTROL

Matrix: Soil

Offits. Hig/kg (ppin)				Source	Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result		overy	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	11-08	36-03									
	ORIG	DUP									
Benzene	ND	ND	NA	NA		N	IA	NA	NA	30	
Toluene	ND	ND	NA	NA		Ν	IΑ	NA	NA	30	
Ethyl Benzene	ND	ND	NA	NA		Ν	IΑ	NA	NA	30	
m,p-Xylene	ND	ND	NA	NA		Ν	IΑ	NA	NA	30	
o-Xylene	ND	ND	NA	NA		Ν	IΑ	NA	NA	30	
Gasoline	ND	ND	NA	NA		Ν	IΑ	NA	NA	30	
Surrogate:											
Fluorobenzene						94	96	68-129			
Laboratory ID:	11-08	36-04									
	ORIG	DUP									
Benzene	ND	ND	NA	NA		N	IA	NA	NA	30	
Toluene	ND	ND	NA	NA		Ν	IΑ	NA	NA	30	
Ethyl Benzene	ND	ND	NA	NA		Ν	IΑ	NA	NA	30	
m,p-Xylene	ND	ND	NA	NA		Ν	IΑ	NA	NA	30	
o-Xylene	ND	ND	NA	NA		Ν	IΑ	NA	NA	30	
Gasoline	ND	ND	NA	NA		Ν	IA	NA	NA	30	
Surrogate:											
Fluorobenzene						112	114	68-129			
SPIKE BLANKS											
Laboratory ID:	SB11	13S2									
	SB	SBD	SB	SBD		SB	SBD				
Benzene	1.09	1.08	1.00	1.00		109	108	76-124	1	17	
Toluene	1.06	1.05	1.00	1.00		106	105	78-124	1	16	
Ethyl Benzene	1.03	1.03	1.00	1.00		103	103	77-123	0	17	
m,p-Xylene	1.03	1.03	1.00	1.00		103	103	78-124	0	17	
o-Xylene	1.02	1.03	1.00	1.00		102	103	76-123	1	18	
Surrogate:											
Fluorobenzene						92	93	68-129			

Laboratory Reference: 1511-086

Project: 1432-001

VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FB-8-10.3-110915					
Laboratory ID:	11-086-08					
Methyl t-Butyl Ether	ND	0.0014	EPA 8260C	11-13-15	11-13-15	
Benzene	ND	0.0014	EPA 8260C	11-13-15	11-13-15	
1,2-Dichloroethane	ND	0.0014	EPA 8260C	11-13-15	11-13-15	
Toluene	ND	0.0071	EPA 8260C	11-13-15	11-13-15	
1,2-Dibromoethane	ND	0.0014	EPA 8260C	11-13-15	11-13-15	
Ethylbenzene	ND	0.0014	EPA 8260C	11-13-15	11-13-15	
m,p-Xylene	ND	0.0028	EPA 8260C	11-13-15	11-13-15	
o-Xylene	ND	0.0014	EPA 8260C	11-13-15	11-13-15	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	96	76-131				
Toluene-d8	103	80-126				
4-Bromofluorobenzene	113	60-146				

Laboratory Reference: 1511-086

Project: 1432-001

VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FB-9-10.3-110915					
Laboratory ID:	11-086-12					
Methyl t-Butyl Ether	ND	0.00091	EPA 8260C	11-13-15	11-13-15	
Benzene	ND	0.00091	EPA 8260C	11-13-15	11-13-15	
1,2-Dichloroethane	ND	0.00091	EPA 8260C	11-13-15	11-13-15	
Toluene	ND	0.0046	EPA 8260C	11-13-15	11-13-15	
1,2-Dibromoethane	ND	0.00091	EPA 8260C	11-13-15	11-13-15	
Ethylbenzene	ND	0.00091	EPA 8260C	11-13-15	11-13-15	
m,p-Xylene	ND	0.0018	EPA 8260C	11-13-15	11-13-15	
o-Xylene	ND	0.00091	EPA 8260C	11-13-15	11-13-15	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	98	76-131				
Toluene-d8	104	80-126				
4-Bromofluorobenzene	114	60-146				

Laboratory Reference: 1511-086

Project: 1432-001

VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FB-14-12.0-111015					
Laboratory ID:	11-086-29					
Methyl t-Butyl Ether	ND	0.00093	EPA 8260C	11-13-15	11-13-15	
Benzene	ND	0.00093	EPA 8260C	11-13-15	11-13-15	
1,2-Dichloroethane	ND	0.00093	EPA 8260C	11-13-15	11-13-15	
Toluene	ND	0.0046	EPA 8260C	11-13-15	11-13-15	
1,2-Dibromoethane	ND	0.059	EPA 8260C	11-13-15	11-13-15	
Ethylbenzene	ND	0.059	EPA 8260C	11-13-15	11-13-15	
m,p-Xylene	ND	0.12	EPA 8260C	11-13-15	11-13-15	
o-Xylene	ND	0.059	EPA 8260C	11-13-15	11-13-15	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	98	76-131				
Toluene-d8	98	80-126				
4-Bromofluorobenzene	111	60-146				

Laboratory Reference: 1511-086

Project: 1432-001

VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
						_
Laboratory ID:	MB1113S1					
Methyl t-Butyl Ether	ND	0.0010	EPA 8260C	11-13-15	11-13-15	
Benzene	ND	0.0010	EPA 8260C	11-13-15	11-13-15	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	11-13-15	11-13-15	
Toluene	ND	0.0050	EPA 8260C	11-13-15	11-13-15	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	11-13-15	11-13-15	
Ethylbenzene	ND	0.0010	EPA 8260C	11-13-15	11-13-15	
m,p-Xylene	ND	0.0020	EPA 8260C	11-13-15	11-13-15	
o-Xylene	ND	0.0010	EPA 8260C	11-13-15	11-13-15	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	102	76-131				
Toluene-d8	109	80-126				
4-Bromofluorobenzene	128	60-146				

Laboratory Reference: 1511-086

Project: 1432-001

VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD		
Analyte	Result		Spike	Level	Rece	overy	Limits	RPD	Limit	Flags	
SPIKE BLANKS											
Laboratory ID:	SB11	13S1									
	SB	SBD	SB	SBD	SB	SBD					
1,1-Dichloroethene	0.0554	0.0551	0.0500	0.0500	111	110	68-126	1	15		
Benzene	0.0555	0.0560	0.0500	0.0500	111	112	75-121	1	15		
Trichloroethene	0.0436	0.0438	0.0500	0.0500	87	88	83-116	0	15		
Toluene	0.0537	0.0546	0.0500	0.0500	107	109	80-115	2	15		
Chlorobenzene	0.0481	0.0486	0.0500	0.0500	96	97	76-120	1	15		
Surrogate:											
Dibromofluoromethane					95	95	76-131				
Toluene-d8					96	98	80-126				
4-Bromofluorobenzene					116	115	60-146				

Laboratory Reference: 1511-086

Project: 1432-001

% MOISTURE

Date Analyzed: 11-12&13-15

Client ID	Lab ID	% Moisture
FB-6-11.0-110915	11-086-03	24
FB-6-15.3-110915	11-086-04	25
FB-7-11.5-110915	11-086-05	27
FB-7-15.5-110915	11-086-06	27
FB-8-10.3-110915	11-086-08	19
FB-8-15.0-110915	11-086-10	25
FB-9-10.3-110915	11-086-12	20
FB-9-16.0-110915	11-086-14	24
FB-10-10.1-110915	11-086-17	24
FB-10-15.0-110915	11-086-19	24
FB-11-10.0-111015	11-086-20	20
FB-11-13.5-111015	11-086-22	24
FB-12-10.0-111015	11-086-23	25
FB-12-16.7-111015	11-086-25	24
FB-13-13.8-111015	11-086-26	24
FB-13-10.0-111015	11-086-28	28
FB-14-12.0-111015	11-086-29	20
FB-14-17.7-111015	11-086-31	18
FB-15-16.0-111015	11-086-34	26
FB-15-10.0-111015	11-086-35	26



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 _ 4

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ab ID Sample Identification	Date Sampled	Time Sampled	Matrix	Number	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-GX	Volatiles 8260C	Haloger	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8	PCBs 8082A	Organo	Organop	Chlorina	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (o	4	中			% Moisture
11 At -8-20.0-110915 c	1/09/15	1335	soil	5	-	1.	140												_	X	- 5			
12 Min -9-10:3 - 110915		1436		1		(3)	- 140	B1	FEX											X	1	>	(8
13 MEB-9-12,3-110915		1442				+	720													+	-100			
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15 MTB-10-0,9-110915		1550				+	July 2												-	+	NO			
16 MW-10-5.0-110915		1557			27	+	OU												-		621			
17 MB-10-10,1-110915		1603				3															NU			X
18 MAEB-10-12.0-110915		1609			esi	7	02												e	+	NO			
19 Mis- 16- 15.0- 110915	1	1618				(X)														1 '	a			X X
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Lab ID Partition Sample Identification	Date Sampled	Time Sampled	Matrix	Number	NWTPH-HCID	NWTPH-Gx/BT	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Haloge	Semivo (with lo	PAHS 8270D	Sapa C	Organo	Chlorinated	Total R	Total M	TCLP Metals	HEM (o	FBB.	FDB.		% Moieture	% INC.
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Page 4 of 4

Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052 Phone: (425) 883-3881 • www.onsite-env.com	Turnaround Reque (in working days		ı	Labo	rate	ory	Nur	nbe	er:									1	1 -	0	86	3	
Project Number: Horal on] 1 Day] 3 Days s) Matrix Matrix	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)	s 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 827 UD/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	il and grease)	EDD, FOC, MTBE 8260C				% Moisture
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14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

November 23, 2015

Joe Rounds Farallon Consulting, LLC 975 5th Avenue NW Issaquah, WA 98027

Re: Analytical Data for Project 1432-001

Laboratory Reference No. 1511-085

Dear Joe:

Enclosed are the analytical results and associated quality control data for samples submitted on November 11, 2015.

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

Laboratory Reference: 1511-085

Project: 1432-001

Case Narrative

Samples were collected on November 9 and 10, 2015 and received by the laboratory on November 11, 2015. 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.

Laboratory Reference: 1511-085

Project: 1432-001

NWTPH-Gx/BTEX

Matrix: Water
Units: ug/L (ppb)

•,				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FB-6-GW-110915					
Laboratory ID:	11-085-01					
Gasoline	ND	100	NWTPH-Gx	11-16-15	11-16-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	84	71-111				
Client ID:	FB-7-GW-110915					
Laboratory ID:	11-085-02					
Benzene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
Toluene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
Ethyl Benzene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
m,p-Xylene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
o-Xylene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
Gasoline	ND	100	NWTPH-Gx	11-16-15	11-16-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	81	71-111				
Client ID:	FB-8-GW-110915					
Laboratory ID:	11-085-03					
Gasoline	ND	100	NWTPH-Gx	11-16-15	11-16-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	83	71-111				
Client ID:	FB-9-GW-110915					
Laboratory ID:	11-085-04					
Gasoline	ND	100	NWTPH-Gx	11-16-15	11-16-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	83	71-111				
Client ID:	FB-10-GW-110915					
Laboratory ID:	11-085-05					
Benzene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
Toluene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
Ethyl Benzene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
m,p-Xylene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
o-Xylene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
Gasoline	ND	100	NWTPH-Gx	11-16-15	11-16-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	83	71-111				
	00					

Laboratory Reference: 1511-085

Project: 1432-001

NWTPH-Gx/BTEX

Matrix: Water
Units: ug/L (ppb)

• /				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FB-11-GW-111015					
Laboratory ID:	11-085-06					
Benzene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
Toluene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
Ethyl Benzene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
m,p-Xylene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
o-Xylene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
Gasoline	ND	100	NWTPH-Gx	11-16-15	11-16-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	82	71-111				
Client ID:	FB-12-GW-111015					
Laboratory ID:	11-085-07					
Benzene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
Toluene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
Ethyl Benzene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
m,p-Xylene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
o-Xylene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
Gasoline	ND	100	NWTPH-Gx	11-16-15	11-16-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	81	71-111				
Client ID:	FB-13-GW-111015					
Laboratory ID:	11-085-08					
Benzene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
Toluene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
Ethyl Benzene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
m,p-Xylene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
o-Xylene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
Gasoline	ND	100	NWTPH-Gx	11-16-15	11-16-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	81	71-111				
Client ID:	FB-14-GW-111015					
Laboratory ID:	11-085-09					
Gasoline	ND	100	NWTPH-Gx	11-16-15	11-16-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	83	71-111				

Laboratory Reference: 1511-085

Project: 1432-001

NWTPH-Gx/BTEX

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	FB-15-GW-111015			<u>-</u>	-	
Laboratory ID:	11-085-10					
Benzene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
Toluene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
Ethyl Benzene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
m,p-Xylene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
o-Xylene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
Gasoline	ND	100	NWTPH-Gx	11-16-15	11-16-15	

Surrogate: Percent Recovery Control Limits Fluorobenzene 81 71-111

Laboratory Reference: 1511-085

Project: 1432-001

NWTPH-Gx/BTEX QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Fluorobenzene

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1116W2					
Benzene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
Toluene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
Ethyl Benzene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
m,p-Xylene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
o-Xylene	ND	1.0	EPA 8021B	11-16-15	11-16-15	
Gasoline	ND	100	NWTPH-Gx	11-16-15	11-16-15	
_						

Surrogate: Percent Recovery Control Limits Fluorobenzene 86 71-111

					Source	Pe	rcent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Red	covery	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	11-08	35-02									
	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						81	83	71-111			
MATRIX SPIKES											
Laboratory ID:	11-08	35-01									
	MS	MSD	MS	MSD		MS	MSD				
Benzene	49.7	52.4	50.0	50.0	ND	99	105	83-123	5	15	
Toluene	48.0	49.8	50.0	50.0	ND	96	100	83-124	4	16	
Ethyl Benzene	47.4	49.6	50.0	50.0	ND	95	99	82-123	5	15	
m,p-Xylene	47.2	49.2	50.0	50.0	ND	94	98	81-125	4	17	
o-Xylene	46.7	48.6	50.0	50.0	ND	93	97	82-123	4	15	
Surrogate:											

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71-111

Laboratory Reference: 1511-085

Project: 1432-001

VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FB-6-GW-110915					
Laboratory ID:	11-085-01					
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	11-12-15	11-12-15	
Benzene	ND	0.20	EPA 8260C	11-12-15	11-12-15	
1,2-Dichloroethane	ND	0.20	EPA 8260C	11-12-15	11-12-15	
Toluene	ND	1.0	EPA 8260C	11-12-15	11-12-15	
Ethylbenzene	ND	0.20	EPA 8260C	11-12-15	11-12-15	
m,p-Xylene	ND	0.40	EPA 8260C	11-12-15	11-12-15	
o-Xylene	ND	0.20	EPA 8260C	11-12-15	11-12-15	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	107	71-131				
Toluene-d8	99	80-120				
4-Bromofluorobenzene	93	80-120				

Laboratory Reference: 1511-085

Project: 1432-001

VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FB-8-GW-110915					
Laboratory ID:	11-085-03					
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	11-12-15	11-12-15	
Benzene	ND	0.20	EPA 8260C	11-12-15	11-12-15	
1,2-Dichloroethane	ND	0.20	EPA 8260C	11-12-15	11-12-15	
Toluene	ND	1.0	EPA 8260C	11-12-15	11-12-15	
Ethylbenzene	0.24	0.20	EPA 8260C	11-12-15	11-12-15	
m,p-Xylene	0.55	0.40	EPA 8260C	11-12-15	11-12-15	
o-Xylene	ND	0.20	EPA 8260C	11-12-15	11-12-15	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	105	71-131				
Toluene-d8	100	80-120				
4-Bromofluorobenzene	95	80-120				
o-Xylene Surrogate: Dibromofluoromethane Toluene-d8	ND Percent Recovery 105 100	0.20 Control Limits 71-131 80-120		_	_	

Laboratory Reference: 1511-085

Project: 1432-001

VOLATILES EPA 8260C

			Date	Date	
Result	PQL	Method	Prepared	Analyzed	Flags
FB-9-GW-110915					
11-085-04					
ND	0.20	EPA 8260C	11-12-15	11-12-15	
ND	0.20	EPA 8260C	11-12-15	11-12-15	
ND	0.20	EPA 8260C	11-12-15	11-12-15	
ND	1.0	EPA 8260C	11-12-15	11-12-15	
ND	0.20	EPA 8260C	11-12-15	11-12-15	
ND	0.40	EPA 8260C	11-12-15	11-12-15	
ND	0.20	EPA 8260C	11-12-15	11-12-15	
Percent Recovery	Control Limits				
107	71-131				
101	80-120				
94	80-120				
	FB-9-GW-110915 11-085-04 ND	FB-9-GW-110915 11-085-04 0.20 ND 0.20 ND 0.20 ND 1.0 ND 0.20 ND 0.40 ND 0.20 Percent Recovery Control Limits 107 71-131 101 80-120	FB-9-GW-110915 11-085-04 0.20 EPA 8260C ND 0.20 EPA 8260C ND 0.20 EPA 8260C ND 1.0 EPA 8260C ND 0.20 EPA 8260C ND 0.40 EPA 8260C ND 0.20 EPA 8260C ND 0.20 EPA 8260C Percent Recovery Control Limits 107 71-131 101 80-120	Result PQL Method Prepared FB-9-GW-110915 11-085-04 11-085-04 ND 0.20 EPA 8260C 11-12-15 ND 0.20 EPA 8260C 11-12-15 ND 1.0 EPA 8260C 11-12-15 ND 0.20 EPA 8260C 11-12-15 ND 0.40 EPA 8260C 11-12-15 ND 0.20 EPA 8260C 11-12-15 Percent Recovery Control Limits 107 71-131 101 80-120 100 100	Result PQL Method Prepared Analyzed FB-9-GW-110915 11-085-04 11-085-04 11-12-15 11-12-15 ND 0.20 EPA 8260C 11-12-15 11-12-15 ND 0.20 EPA 8260C 11-12-15 11-12-15 ND 1.0 EPA 8260C 11-12-15 11-12-15 ND 0.20 EPA 8260C 11-12-15 11-12-15 ND 0.40 EPA 8260C 11-12-15 11-12-15 ND 0.20 EPA 8260C 11-12-15 11-12-15 Percent Recovery Control Limits 107 71-131 101 80-120

Laboratory Reference: 1511-085

Project: 1432-001

VOLATILES EPA 8260C

			Date	Date	
Result	PQL	Method	Prepared	Analyzed	Flags
FB-14-GW-111015					
11-085-09					
ND	0.20	EPA 8260C	11-12-15	11-12-15	
ND	0.20	EPA 8260C	11-12-15	11-12-15	
ND	0.20	EPA 8260C	11-12-15	11-12-15	
ND	1.0	EPA 8260C	11-12-15	11-12-15	
ND	0.20	EPA 8260C	11-12-15	11-12-15	
ND	0.40	EPA 8260C	11-12-15	11-12-15	
ND	0.20	EPA 8260C	11-12-15	11-12-15	
Percent Recovery	Control Limits				
103	71-131				
101	80-120				
94	80-120				
	FB-14-GW-111015 11-085-09 ND	FB-14-GW-111015 11-085-09 0.20 ND 0.20 ND 0.20 ND 1.0 ND 0.20 ND 0.40 ND 0.20 Percent Recovery Control Limits 103 71-131 101 80-120	FB-14-GW-111015 11-085-09 ND 0.20 EPA 8260C ND 0.20 EPA 8260C ND 0.20 EPA 8260C ND 1.0 EPA 8260C ND 0.20 EPA 8260C ND 0.40 EPA 8260C ND 0.20 EPA 8260C Percent Recovery Control Limits 103 71-131 101 80-120	Result PQL Method Prepared FB-14-GW-111015 11-085-09 11-085-09 11-12-15 ND 0.20 EPA 8260C 11-12-15 ND 0.20 EPA 8260C 11-12-15 ND 1.0 EPA 8260C 11-12-15 ND 0.20 EPA 8260C 11-12-15 ND 0.40 EPA 8260C 11-12-15 ND 0.20 EPA 8260C 11-12-15 Percent Recovery Control Limits 103 71-131 71-131 101 80-120 100	Result PQL Method Prepared Analyzed FB-14-GW-111015 11-085-09 11-12-15 11-12-15 11-12-15 ND 0.20 EPA 8260C 11-12-15 11-12-15 ND 0.20 EPA 8260C 11-12-15 11-12-15 ND 1.0 EPA 8260C 11-12-15 11-12-15 ND 0.20 EPA 8260C 11-12-15 11-12-15 ND 0.40 EPA 8260C 11-12-15 11-12-15 ND 0.20 EPA 8260C 11-12-15 11-12-15 Percent Recovery Control Limits 103 71-131 101 80-120

Laboratory Reference: 1511-085

Project: 1432-001

VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB1112W1					
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	11-12-15	11-12-15	
Benzene	ND	0.20	EPA 8260C	11-12-15	11-12-15	
1,2-Dichloroethane	ND	0.20	EPA 8260C	11-12-15	11-12-15	
Toluene	ND	1.0	EPA 8260C	11-12-15	11-12-15	
Ethylbenzene	ND	0.20	EPA 8260C	11-12-15	11-12-15	
m,p-Xylene	ND	0.40	EPA 8260C	11-12-15	11-12-15	
o-Xylene	ND	0.20	EPA 8260C	11-12-15	11-12-15	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	104	71-131				
Toluene-d8	99	80-120				
4-Bromofluorobenzene	93	80-120				

Laboratory Reference: 1511-085

Project: 1432-001

VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Rec	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB11	12W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.35	9.14	10.0	10.0	94	91	62-132	2	20	
Benzene	9.42	9.75	10.0	10.0	94	98	75-121	3	15	
Trichloroethene	8.78	9.04	10.0	10.0	88	90	65-115	3	15	
Toluene	9.56	10.0	10.0	10.0	96	100	78-116	4	15	
Chlorobenzene	9.10	9.34	10.0	10.0	91	93	77-118	3	15	
Surrogate:										
Dibromofluoromethane					98	98	71-131			
Toluene-d8					98	99	80-120			
4-Bromofluorobenzene					93	95	80-120			

Laboratory Reference: 1511-085

Project: 1432-001

1,2-DIBROMOETHANE (EDB) EPA 8011

Matrix: Water
Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FB-6-GW-110915					
Laboratory ID:	11-085-01					
EDB	ND	0.0096	EPA 8011	11-20-15	11-20-15	
Surrogate:	Percent Recovery	Control Limits				
TCMX	69	25-143				
Client ID:	FB-8-GW-110915					
Laboratory ID:	11-085-03					
EDB	ND	0.0097	EPA 8011	11-20-15	11-20-15	
Surrogate:	Percent Recovery	Control Limits				
TCMX	67	25-143				
Client ID:	FB-9-GW-110915					
Laboratory ID:	11-085-04					
EDB	ND	0.0096	EPA 8011	11-20-15	11-20-15	
Surrogate:	Percent Recovery	Control Limits				
TCMX	69	25-143				
Client ID:	FB-14-GW-111015					
Laboratory ID:	11-085-09					
EDB	ND	0.0096	EPA 8011	11-20-15	11-20-15	
Surrogate:	Percent Recovery	Control Limits				
TCMX	72	25-143				

Laboratory Reference: 1511-085

Project: 1432-001

1,2-DIBROMOETHANE (EDB) EPA 8011 QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK				•	•	
Laboratory ID:	MB1120W1					
EDB	ND	0.010	EPA 8011	11-20-15	11-20-15	
Surrogate:	Percent Recovery	Control Limits				
TCMX	61	25-143				

Analyte	Re	sult	Spike	Level	Source Result		rcent covery	Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS											
Laboratory ID:	SB11	20W1									
	SB	SBD	SB	SBD		SB	SBD				
EDB	0.0675	0.0676	0.100	0.100	N/A	68	68	84-118	0	15	
Surrogate:											
TCMX						77	79	25-143			



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

The	OnSite
	Environmental Inc.

Page of

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Phone: (425) 883-3881 • www.onsite-env.com Company:		(Check One)					T	T	18.2							016	T	T	T			8 T		
tarallon	☐ Sa	me Day	1 Day												M						BUDC			
Project Number: 1432-001		Days	3 Days											11B	270D/S	8151A								
Project Name: Kellogs Korner	Sta (TF	andard (7 Days) PH analysis 5 Da	ays)	LS.						8260C	SIM	v-level)		Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	oicides 8				1664A	NTBE		0	
Project Manager: Soe Rounds				Containers		EX				olatiles	8270D/SIM I PAHS)	IM (lov		Pestic	rus Pe	id Hert	stals	stals		rease)	5	C	0	
Sampled by: Jared Kerr]	(other)		r of Co	-HCID	-Gx/BTEX	-G	×Q-	\$ 8260C	nated V	atiles 8 v-level	8270D/SIM (low-level)	082A	chlorine	ohospho	ited Ac	SRA Me	fotal MTCA Metals	letals	il and g	EDC		D	ture
Lab ID 58 11/11/15 Sample Identification	Date Sampled	Time Sampled	Matrix	Numbe	NWTPH-HCID	NWTPH-	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles	Semivolatiles (with low-leve	400	PCBs 8082A	Organo	Organop	Chlorinated Acid Herbicides	Total RCRA Metals	Total M	TCLP Metals	HEM (oil and grease)	TO TO		إدا	% Moisture
1 FBMW-6-6W-110915	11/04/	15 1127	Water	7	(W	-	10	BT	EX										((X)	6	D	
2 FBD4W-7-GW-110915	1	1234	.)	1		3															13			
3 FB14W-8- GW-110915		1344			(_	510	87	E.	K									((8)	(1	
4 FBMHJ-9-GW-110915		1456				X) -	74	08	TE	X										(8)	0	Ď	
5 FBNAW-10-GW-110915		1625				(8)															145			
G FB MW-11-GW-11105	11/10/1	5 0853				(1)															1			
7 FBMW-12- GW-111015)	1004				0															147			
8 FB-13-6W-111015		1141	,			(3)														-	100	5		
9 FB-14-GW-111015		1256				(8)		240	B	TE	×										0	(
10 FB-15-GW-111015	T	1417	1		/	8														40	1	0		
Signature		Company				Date			Time			Cor	nmen	ts/Sp	ecial	Instru	uction	18						
Relinquished		Fara	allon			11	/11/	15	06	00		PA	الزدمج		d	10000	10	+	he		"py	W	+	0
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14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

October 25, 2017

Joe Rounds Farallon Consulting, LLC 975 5th Avenue NW Issaquah, WA 98027

Re: Analytical Data for Project 1432-001

Laboratory Reference No. 1710-242

Dear Joe:

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

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

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

Sincerely,

David Baumeister Project Manager

Enclosures



Project: 1432-001

Case Narrative

Samples were collected on October 16 and 17, 2017 and received by the laboratory on October 18, 2017. They were maintained at the laboratory at a temperature of 2° C to 6° C.

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

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

Project: 1432-001

NWTPH-Gx/BTEX

Matrix: Soil

Units: mg/kg (ppm)

Client ID:	0 0 ((1)				Date	Date	
Benzene ND 0.020 EPA 8021B 10-20-17 10-20-17 Toluene ND 0.072 EPA 8021B 10-20-17 10-20-17 Toluene ND 0.072 EPA 8021B 10-20-17 10-20-17 Toluene ND 0.072 EPA 8021B 10-20-17 10-20-17 To-20-17 T	Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Benzene	Client ID:	FMW-3-7.0					
Toluene ND 0.072 EPA 8021B 10-20-17 10-20-17 Ethyl Benzene ND 0.072 EPA 8021B 10-20-17 10-20-17 m.p-Xylene ND 7.2 NWTPH-Gx 10-20-17 10-20-17 m.p-Xylene Percent Recovery Control Limits Fluorobenzene 92 66-130 Client ID: FMW-3-15.0 Laboratory ID: 10-242-03 Benzene ND 0.020 EPA 8021B 10-20-17 10-20-17 Toluene ND 0.073 EPA 8021B 10-20-17 10-20-17 m.p-Xylene ND 7.3 NWTPH-Gx 10-20-17 10-20-17 M.p-Xylene ND 7.3 NWTPH-Gx 10-20-17 10-20-17 M.p-Xylene ND 7.3 NWTPH-Gx 10-20-17 10-20-17 M.p-Xylene ND 0.073 EPA 8021B 10-20-17 10-20-17 M.p-Xylene ND 0.073 EPA 8021B 10-20-17 10-20-17 M.p-Xylene ND 0.073 EPA 8021B 10-20-17 10-20-17 M.p-Xylene ND 0.078 EPA 8021	Laboratory ID:	10-242-02					
Ethyl Benzene ND 0.072 EPA 8021B 10-20-17 10-20-17 m,p-Xylene ND 0.072 EPA 8021B 10-20-17 10-20-17 o-Xylene ND 0.072 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.2 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits FMW-3-15.0 Control Limits Fluorobenzene 92 66-130 66-130 66-130 Client ID: FMW-3-15.0 FMW-3-15.0 FMW-3-15.0 FMW-3-15.0 FMW-3-15.0 FMW-3-15.0 FMW-2-17 10-20-17	Benzene	ND	0.020	EPA 8021B	10-20-17	10-20-17	
m.pXylene ND 0.072 EPA 8021B 10-20-17 10-20-17 o-Xylene ND 0.072 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.2 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits Fluorobenzere Surrogate: Percent Recovery Control Limits Fluorobenzere 92 66-130 Client ID: FMW-3-15.0 Laboratory ID: 10-242-03 EPA 8021B 10-20-17 10-20-17 Benzene ND 0.073 EPA 8021B 10-20-17 10-20-17 Toluene ND 0.073 EPA 8021B 10-20-17 10-20-17 Ethyl Benzene ND 0.073 EPA 8021B 10-20-17 10-20-17 Mp. Yalene ND 0.073 EPA 8021B 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits Fluorobenzene 89 66-130 Client ID:<	Toluene	ND	0.072	EPA 8021B	10-20-17	10-20-17	
o-Xylene ND 0.072 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.2 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits Fluorobenzene 92 66-130 Client ID: FMW-3-15.0 Edboratory ID: 10-242-03 Benzene ND 0.020 EPA 8021B 10-20-17 10-20-17 Toluene ND 0.073 EPA 8021B 10-20-17 10-20-17 Ethyl Benzene ND 0.073 EPA 8021B 10-20-17 10-20-17 mp-Xylene ND 0.073 EPA 8021B 10-20-17 10-20-17 o-Xylene ND 0.073 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.3 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits Percent Recovery Control Limits Benzene ND 0.020 EPA 8021B 10-20-17 10-20-17 Tol	Ethyl Benzene	ND	0.072	EPA 8021B	10-20-17	10-20-17	
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Surrogate: Percent Recovery Control Limits Fluorobenzene 92 66-130 Client ID: FMW-3-15.0 Laboratory ID: 10-242-03 Benzene ND 0.020 EPA 8021B 10-20-17 10-20-17 Toluene ND 0.073 EPA 8021B 10-20-17 10-20-17 Ethyl Benzene ND 0.073 EPA 8021B 10-20-17 10-20-17 mp-Xylene ND 0.073 EPA 8021B 10-20-17 10-20-17 o-Xylene ND 0.073 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.3 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits Fluorobenzene 89 66-130 Client ID: FMW-2-11.0 Laboratory ID: 10-242-06 Benzene ND 0.020 EPA 8021B 10-20-17 10-20-17 Toluene ND 0.078 EPA 8021B 10-20-17 10-	o-Xylene	ND	0.072	EPA 8021B	10-20-17	10-20-17	
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Client ID: FMW-3-15.0 Laboratory ID: 10-242-03 Benzene ND 0.020 EPA 8021B 10-20-17 10-20-17 Toluene ND 0.073 EPA 8021B 10-20-17 10-20-17 Ethyl Benzene ND 0.073 EPA 8021B 10-20-17 10-20-17 m,p-Xylene ND 0.073 EPA 8021B 10-20-17 10-20-17 o-Xylene ND 0.073 EPA 8021B 10-20-17 10-20-17 o-Xylene ND 0.073 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.3 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits Fluorobenzene 89 66-130 Client ID: FMW-2-11.0 Laboratory ID: 10-242-06 Benzene ND 0.078 EPA 8021B 10-20-17 10-20-17 Toluene ND 0.078 EPA 8021B 10-20-17 10-20-17 Ethyl Benzene ND 0.078 EPA 8021B 10-20-17 10-20-17 m,p-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 m,p-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 o-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 o-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.8 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits	Surrogate:	Percent Recovery	Control Limits				
Description	Fluorobenzene	92	66-130				
ND 0.020 EPA 8021B 10-20-17 10-20-17 Toluene ND 0.073 EPA 8021B 10-20-17 10-20-17 Ethyl Benzene ND 0.073 EPA 8021B 10-20-17 10-20-17 m,p-Xylene ND 0.073 EPA 8021B 10-20-17 10-20-17 m,p-Xylene ND 0.073 EPA 8021B 10-20-17 10-20-17 mo-Xylene ND 0.073 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.3 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits Fluorobenzene Recovery Control Limits Fluorobenzene Recovery Control Limits Fluorobenzene ND 0.020 EPA 8021B 10-20-17 10-20-17 Toluene ND 0.078 EPA 8021B 10-20-17 10-20-17 Ethyl Benzene ND 0.078 EPA 8021B 10-20-17 10-20-17 m,p-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 mo-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.8 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits Surrogate: Percent Recovery Control Limits Control Limits Control Limits Control Limit	Client ID:	FMW-3-15.0					
Toluene ND 0.073 EPA 8021B 10-20-17 10-20-17 Ethyl Benzene ND 0.073 EPA 8021B 10-20-17 10-20-17 m.p-Xylene ND 0.073 EPA 8021B 10-20-17 10-20-17 o-Xylene ND 0.073 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.3 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits Fluorobenzene 89 66-130 Client ID: FMW-2-11.0 Laboratory ID: 10-242-06 Benzene ND 0.020 EPA 8021B 10-20-17 10-20-17 Toluene ND 0.078 EPA 8021B 10-20-17 10-20-17 Ethyl Benzene ND 0.078 EPA 8021B 10-20-17 10-20-17 m,p-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 o-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17	Laboratory ID:	10-242-03					
Ethyl Benzene ND 0.073 EPA 8021B 10-20-17 10-20-17 m,p-Xylene ND 0.073 EPA 8021B 10-20-17 10-20-17 o-Xylene ND 0.073 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.3 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits Fluorobenzene 89 66-130 Client ID: FMW-2-11.0 Laboratory ID: 10-242-06 EPA 8021B 10-20-17 10-20-17 Benzene ND 0.078 EPA 8021B 10-20-17 10-20-17 Toluene ND 0.078 EPA 8021B 10-20-17 10-20-17 Ethyl Benzene ND 0.078 EPA 8021B 10-20-17 10-20-17 m,p-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.8 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits	Benzene	ND	0.020	EPA 8021B	10-20-17	10-20-17	
m,p-Xylene ND 0.073 EPA 8021B 10-20-17 10-20-17 o-Xylene ND 0.073 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.3 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits Foliation of Control Limits Fluorobenzene 89 66-130 66-130 Client ID: FMW-2-11.0 FMW-2-11.0 FMW-2-11.0 Laboratory ID: 10-242-06 FMW-2-11.0 FMW-2-11.	Toluene	ND	0.073	EPA 8021B	10-20-17	10-20-17	
ND 0.073 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.3 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits Fluorobenzene 89 66-130 Client ID: FMW-2-11.0 FMW-2-17	Ethyl Benzene	ND	0.073	EPA 8021B	10-20-17	10-20-17	
Gasoline ND 7.3 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Fluorobenzene Control Limits Fluorobenzene 89 66-130 Client ID: FMW-2-11.0 Laboratory ID: 10-242-06 Benzene ND 0.020 EPA 8021B 10-20-17 10-20-17 Toluene ND 0.078 EPA 8021B 10-20-17 10-20-17 Ethyl Benzene ND 0.078 EPA 8021B 10-20-17 10-20-17 m,p-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 o-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.8 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits	m,p-Xylene	ND	0.073	EPA 8021B	10-20-17	10-20-17	
Surrogate: Percent Recovery Control Limits Fluorobenzene 89 66-130 Client ID: FMW-2-11.0 Laboratory ID: 10-242-06 Benzene ND 0.020 EPA 8021B 10-20-17 10-20-17 Toluene ND 0.078 EPA 8021B 10-20-17 10-20-17 Ethyl Benzene ND 0.078 EPA 8021B 10-20-17 10-20-17 m,p-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 o-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.8 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits	o-Xylene	ND	0.073	EPA 8021B	10-20-17	10-20-17	
Fluorobenzene 89 66-130 Client ID: FMW-2-11.0 Laboratory ID: 10-242-06 Benzene ND 0.020 EPA 8021B 10-20-17 10-20-17 Toluene ND 0.078 EPA 8021B 10-20-17 10-20-17 Ethyl Benzene ND 0.078 EPA 8021B 10-20-17 10-20-17 m,p-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 o-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.8 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits	Gasoline	ND	7.3	NWTPH-Gx	10-20-17	10-20-17	
Client ID: FMW-2-11.0 Laboratory ID: 10-242-06 Benzene ND 0.020 EPA 8021B 10-20-17 10-20-17 Toluene ND 0.078 EPA 8021B 10-20-17 10-20-17 Ethyl Benzene ND 0.078 EPA 8021B 10-20-17 10-20-17 m,p-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 o-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.8 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits	Surrogate:	Percent Recovery	Control Limits				
Laboratory ID: 10-242-06 Benzene ND 0.020 EPA 8021B 10-20-17 10-20-17 Toluene ND 0.078 EPA 8021B 10-20-17 10-20-17 Ethyl Benzene ND 0.078 EPA 8021B 10-20-17 10-20-17 m,p-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 o-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.8 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits	Fluorobenzene	89	66-130				
Benzene ND 0.020 EPA 8021B 10-20-17 10-20-17 Toluene ND 0.078 EPA 8021B 10-20-17 10-20-17 Ethyl Benzene ND 0.078 EPA 8021B 10-20-17 10-20-17 m,p-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 o-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.8 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits	Client ID:	FMW-2-11.0					
ND 0.078 EPA 8021B 10-20-17 10-20-17 Ethyl Benzene ND 0.078 EPA 8021B 10-20-17 10-20-17 m,p-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 o-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.8 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits	Laboratory ID:	10-242-06					
Ethyl Benzene ND 0.078 EPA 8021B 10-20-17 10-20-17 m,p-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 o-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.8 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits	Benzene	ND	0.020	EPA 8021B	10-20-17	10-20-17	
m,p-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 o-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.8 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits	Toluene	ND	0.078	EPA 8021B	10-20-17	10-20-17	
o-Xylene ND 0.078 EPA 8021B 10-20-17 10-20-17 Gasoline ND 7.8 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits	Ethyl Benzene	ND	0.078	EPA 8021B	10-20-17	10-20-17	
Gasoline ND 7.8 NWTPH-Gx 10-20-17 10-20-17 Surrogate: Percent Recovery Control Limits	m,p-Xylene	ND	0.078	EPA 8021B	10-20-17	10-20-17	
Surrogate: Percent Recovery Control Limits	o-Xylene	ND	0.078	EPA 8021B	10-20-17	10-20-17	
·	Gasoline	ND	7.8	NWTPH-Gx	10-20-17	10-20-17	
Fluorobenzene 94 66-130	Surrogate:	Percent Recovery	Control Limits				
	Fluorobenzene	94	66-130				

Project: 1432-001

NWTPH-Gx/BTEX

Matrix: Soil

Units: mg/kg (ppm)

Onito. Trig/tig (ppm)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-2-15.0					
Laboratory ID:	10-242-07					
Benzene	ND	0.020	EPA 8021B	10-20-17	10-20-17	
Toluene	ND	0.070	EPA 8021B	10-20-17	10-20-17	
Ethyl Benzene	ND	0.070	EPA 8021B	10-20-17	10-20-17	
m,p-Xylene	ND	0.070	EPA 8021B	10-20-17	10-20-17	
o-Xylene	ND	0.070	EPA 8021B	10-20-17	10-20-17	
Gasoline	ND	7.0	NWTPH-Gx	10-20-17	10-20-17	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	92	66-130				
Client ID:	FMW-1-7.5					
Laboratory ID:	10-242-10					
Benzene	ND	0.020	EPA 8021B	10-20-17	10-20-17	
Toluene	ND	0.067	EPA 8021B	10-20-17	10-20-17	
Ethyl Benzene	ND	0.067	EPA 8021B	10-20-17	10-20-17	
m,p-Xylene	ND	0.067	EPA 8021B	10-20-17	10-20-17	
o-Xylene	ND	0.067	EPA 8021B	10-20-17	10-20-17	
Gasoline	ND	6.7	NWTPH-Gx	10-20-17	10-20-17	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	91	66-130				
Client ID:	FMW-1-15.0					
Laboratory ID:	10-242-12					
Benzene	ND	0.020	EPA 8021B	10-20-17	10-20-17	
Toluene	ND	0.077	EPA 8021B	10-20-17	10-20-17	
Ethyl Benzene	ND	0.077	EPA 8021B	10-20-17	10-20-17	
m,p-Xylene	ND	0.077	EPA 8021B	10-20-17	10-20-17	
o-Xylene	ND	0.077	EPA 8021B	10-20-17	10-20-17	
Gasoline	ND	7.7	NWTPH-Gx	10-20-17	10-20-17	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	91	66-130				

Project: 1432-001

NWTPH-Gx/BTEX

Matrix: Soil

Units: mg/kg (ppm)

nalyte Result PQL Method lient ID: FMW-4-6.0 aboratory ID: 10-242-14	10-20-17 10-20-17	Analyzed	Flags
		10.00.17	
aboratory ID: 10-242-14		40.00.47	
		10.00.17	
enzene ND 0.020 EPA 8021B	10 20 17	10-20-17	
oluene ND 0.057 EPA 8021B	10-20-17	10-20-17	
thyl Benzene ND 0.057 EPA 8021B	10-20-17	10-20-17	
p-Xylene ND 0.057 EPA 8021B	10-20-17	10-20-17	
Xylene ND 0.057 EPA 8021B	10-20-17	10-20-17	
asoline ND 5.7 NWTPH-Gx	10-20-17	10-20-17	
urrogate: Percent Recovery Control Limits			
luorobenzene 78 66-130			
lient ID: FMW-4-13.0			
aboratory ID: 10-242-16			
enzene ND 0.020 EPA 8021B	10-20-17	10-20-17	
oluene ND 0.077 EPA 8021B	10-20-17	10-20-17	
thyl Benzene ND 0.077 EPA 8021B	10-20-17	10-20-17	
p-Xylene ND 0.077 EPA 8021B	10-20-17	10-20-17	
Xylene ND 0.077 EPA 8021B	10-20-17	10-20-17	
asoline ND 7.7 NWTPH-Gx	10-20-17	10-20-17	
urrogate: Percent Recovery Control Limits			
luorobenzene 86 66-130			
lient ID: FMW-5-6.0			
aboratory ID: 10-242-19			
enzene ND 0.020 EPA 8021B	10-20-17	10-20-17	
oluene ND 0.062 EPA 8021B	10-20-17	10-20-17	
thyl Benzene ND 0.062 EPA 8021B	10-20-17	10-20-17	
p-Xylene ND 0.062 EPA 8021B	10-20-17	10-20-17	
Xylene ND 0.062 EPA 8021B	10-20-17	10-20-17	
asoline ND 6.2 NWTPH-Gx	10-20-17	10-20-17	
urrogate: Percent Recovery Control Limits			
luorobenzene 76 66-130			

Project: 1432-001

NWTPH-Gx/BTEX

Matrix: Soil

Units: mg/kg (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-5-14.0					
Laboratory ID:	10-242-21					
Benzene	ND	0.020	EPA 8021B	10-20-17	10-20-17	
Toluene	ND	0.072	EPA 8021B	10-20-17	10-20-17	
Ethyl Benzene	ND	0.072	EPA 8021B	10-20-17	10-20-17	
m,p-Xylene	ND	0.072	EPA 8021B	10-20-17	10-20-17	
o-Xylene	ND	0.072	EPA 8021B	10-20-17	10-20-17	
Gasoline	ND	7.2	NWTPH-Gx	10-20-17	10-20-17	
Currogata:	Paraont Pagayany	Control Limita				

Surrogate: Percent Recovery Control Limits Fluorobenzene 86 66-130

Project: 1432-001

NWTPH-Gx/BTEX QUALITY CONTROL

Matrix: Soil

Units: mg/kg (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1020S2					
Benzene	ND	0.020	EPA 8021B	10-20-17	10-20-17	
Toluene	ND	0.050	EPA 8021B	10-20-17	10-20-17	
Ethyl Benzene	ND	0.050	EPA 8021B	10-20-17	10-20-17	
m,p-Xylene	ND	0.050	EPA 8021B	10-20-17	10-20-17	
o-Xylene	ND	0.050	EPA 8021B	10-20-17	10-20-17	
Gasoline	ND	5.0	NWTPH-Gx	10-20-17	10-20-17	

Surrogate: Percent Recovery Control Limits Fluorobenzene 84 66-130

					Source	Pe	rcent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Red	covery	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	10-25	58-02									
	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						86	85	66-130			
SPIKE BLANKS											
Laboratory ID:	SB10	20S1									
	SB	SBD	SB	SBD		SB	SBD				
Benzene	0.922	0.868	1.00	1.00		92	87	70-120	6	11	
Toluene	0.936	0.881	1.00	1.00		94	88	73-121	6	14	
Ethyl Benzene	0.946	0.890	1.00	1.00		95	89	74-121	6	11	
m,p-Xylene	0.945	0.890	1.00	1.00		95	89	75-124	6	13	
o-Xylene	0.929	0.881	1.00	1.00		93	88	75-121	5	12	
Surrogate:											

81

66-130

Fluorobenzene

Project: 1432-001

% MOISTURE

Date Analyzed: 10-20-17

Client ID	Lab ID	% Moisture
FMW-3-7.0	10-242-02	23
FMW-3-15.0	10-242-03	22
FMW-2-11.0	10-242-06	27
FMW-2-15.0	10-242-07	22
FMW-1-7.5	10-242-10	20
FMW-1-15.0	10-242-12	23
FMW-4-6.0	10-242-14	11
FMW-4-13.0	10-242-16	24
FMW-5-6.0	10-242-19	8
FMW-5-14.0	10-242-21	22



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.

7 -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference



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	Environmental	inc.

Page ____ of ____

Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052		Turnaround Req (in working da			L	abo	rato	ory	Nun	nbei	r: 1	0 -	2	4 2	2									
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Project Number:	☐ Sa	ame Day	1 Day					(0							IIS/Q0	_								
1432-001	☐ 2	Days	3 Days			1		ean-up						081B	es 827	8151/								
Project Name: Hellocgs Lorne	St	andard (7 Days) PH analysis 5 Da		ço		302		Acid / SG Clean-up)	00000	SOnly	MIS	-level)		ides 8	esticid	icides				1664A				
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Sampled by:		(other)		of Con	HCID	Gx/BT	Ğ	Dx (8260C	8011	atiles 8%	r-level F 70D/SI	182A	hlorine	hospho	ted Aci	RA Me	CA Me	etals	and gr				e
710	Date	Time		Number	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (□	Volatiles 8260C	FDB EPA 8011 (Waters Only)	emivol	(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)				% Moisture
1 FMW -3 -5.5	Sample	Sampled 17 12:20	Matrix	5	Z	Z	Z	Z	> 1		1 0.		100		0		-	-	-	1				8
2 FMW -3 - 7,0		12:40		1		X					1													X
3 FMW-3-15,0		12:50		1		X																		X
4 FMW-2-5.0		14:45																						
5 FMW-2-7.0		15:00																						
6 FMW-2-11.0		15:65				X																		X
T FMW-2-15.0		15:10				X																		X
8 FMW-1 - 3.0	(\$ 17120																						
9 FMW-1-55	10-17	-178:00																						
10 FMW -1-1.5		8:10	V	V		X																		X
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Project Name: Holls Korney	Standard (7 Days) (TPH analysis 5 Days)	ers		802	Acid / SG Clean-up)		Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	w-level)	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A				grease) 1664A				
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11 FMW-1-11.0	10-17-17 8:20 8011,	5,																			
12 FMW-1-15.0	18130			X																	X
13 FMW-4-3,0	10:05																				
14 FMW-4-60	10:30			X																	×
15 FMU-4-10,5	10:35																				
6 FMW-4-13,0	10:50			X																	乂
1) FMW-4-20.0	10155																				
18 FMW-5-3.0	10015																				
19 FMW-5- 610	11:40			X																	X
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Phone: (425) 883-3881 • www.onsite-env.com		(Check One)						T	Ī	T		T	T										T
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Project Name:	2 Day					3	Clear		ပ္ပ	(ýl		(F)	808	ides (es 81				Y.				
(As) Alloges horner	Stand (TPH	lard (7 Days) analysis 5 Da	ays)	ers		200	Acid / SG Clean-up)		s 826	ers Or	/SIM	w-lev	icides	Pestic	rbicid) 1664A				
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P17)	Date	Time		Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHS 8270D/ PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and				% Moisture
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14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

October 27, 2017

Joe Rounds Farallon Consulting, LLC 975 5th Avenue NW Issaquah, WA 98027

Re: Analytical Data for Project 1432-001

Laboratory Reference No. 1710-361

Dear Joe:

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

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

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

Sincerely,

David Baumeister Project Manager

Enclosures

Project: 1432-001

Case Narrative

Samples were collected on October 25, 2017 and received by the laboratory on October 26, 2017. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

Project: 1432-001

NWTPH-Gx/BTEX

Matrix: Water
Units: ug/L (ppb)

Result PQL Method Iient ID: FMW-1-102517 Iient ID: III-102517 III-102517 III-102517 III-102517 III-102517 III-102517 III-102518 III-102518 III-102518 III-102517 III-	10-26-17 10-26-17 10-26-17 10-26-17 10-26-17 10-26-17	10-26-17 10-26-17 10-26-17 10-26-17 10-26-17 10-26-17	Flags
Aboratory ID: 10-361-01	10-26-17 10-26-17 10-26-17 10-26-17	10-26-17 10-26-17 10-26-17 10-26-17	
ND	10-26-17 10-26-17 10-26-17 10-26-17	10-26-17 10-26-17 10-26-17 10-26-17	
ND	10-26-17 10-26-17 10-26-17 10-26-17	10-26-17 10-26-17 10-26-17 10-26-17	
thyl Benzene h,p-Xylene h,p-Xylen	10-26-17 10-26-17 10-26-17	10-26-17 10-26-17 10-26-17	
ND	10-26-17 10-26-17	10-26-17 10-26-17	
ND	10-26-17	10-26-17	
ND			
Percent Recovery Control Limits Recovery Control Limits Recovery Recovery Control Limits Recovery Recov	10-26-17	10-26-17	
Section Sect			
Itient ID: FMW-2-102517 aboratory ID: 10-361-02 enzene ND 1.0 EPA 8021B oluene ND 1.0 EPA 8021B thyl Benzene ND 1.0 EPA 8021B n,p-Xylene ND 1.0 EPA 8021B -Xylene ND 1.0 EPA 8021B asoline ND 100 NWTPH-Gx urrogate: Percent Recovery Control Limits			
Aboratory ID: 10-361-02 enzene ND 1.0 EPA 8021B oluene ND 1.0 EPA 8021B thyl Benzene ND 1.0 EPA 8021B n.p-Xylene ND 1.0 EPA 8021B -Xylene ND 1.0 EPA 8021B assoline ND 100 NWTPH-Gx urrogate: Percent Recovery Control Limits			
ND 1.0 EPA 8021B oluene ND 1.0 EPA 8021B thyl Benzene ND 1.0 EPA 8021B n,p-Xylene ND 1.0 EPA 8021B -Xylene ND 1.0 EPA 8021B assoline ND 100 NWTPH-Gx urrogate: Percent Recovery Control Limits			
ND 1.0 EPA 8021B thyl Benzene ND 1.0 EPA 8021B n,p-Xylene ND 1.0 EPA 8021B -Xylene ND 1.0 EPA 8021B asoline ND 100 NWTPH-Gx urrogate: Percent Recovery Control Limits			
thyl Benzene ND 1.0 EPA 8021B t,p-Xylene ND 1.0 EPA 8021B -Xylene ND 1.0 EPA 8021B asoline ND 100 NWTPH-Gx urrogate: Percent Recovery Control Limits	10-26-17	10-26-17	
ND 1.0 EPA 8021B -Xylene ND 1.0 EPA 8021B asoline ND 100 NWTPH-Gx aurrogate: Percent Recovery Control Limits	10-26-17	10-26-17	
-Xylene ND 1.0 EPA 8021B -Assoline ND 100 NWTPH-Gx	10-26-17	10-26-17	
asoline ND 100 NWTPH-Gx urrogate: Percent Recovery Control Limits	10-26-17	10-26-17	
urrogate: Percent Recovery Control Limits	10-26-17	10-26-17	
,	10-26-17	10-26-17	
luorohenzene 83 66-114			
adiobonzone 00 00 114			
lient ID: FMW-3-102517			
aboratory ID: 10-361-03			
enzene ND 1.0 EPA 8021B	10-26-17	10-26-17	
oluene ND 1.0 EPA 8021B	10-26-17	10-26-17	
thyl Benzene ND 1.0 EPA 8021B	10-26-17	10-26-17	
n,p-Xylene ND 1.0 EPA 8021B	10-26-17	10-26-17	
-Xylene ND 1.0 EPA 8021B	10-26-17	10-26-17	
asoline ND 100 NWTPH-Gx	10-26-17	10-26-17	
urrogate: Percent Recovery Control Limits			
luorobenzene 92 66-114			

Project: 1432-001

NWTPH-Gx/BTEX

Matrix: Water
Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-4-102517					
Laboratory ID:	10-361-04					
Benzene	ND	1.0	EPA 8021B	10-26-17	10-26-17	
Toluene	ND	1.0	EPA 8021B	10-26-17	10-26-17	
Ethyl Benzene	ND	1.0	EPA 8021B	10-26-17	10-26-17	
m,p-Xylene	ND	1.0	EPA 8021B	10-26-17	10-26-17	
o-Xylene	ND	1.0	EPA 8021B	10-26-17	10-26-17	
Gasoline	ND	100	NWTPH-Gx	10-26-17	10-26-17	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	98	66-114				
Client ID:	FMW-5-102517					
Laboratory ID:	10-361-05					
Benzene	ND	1.0	EPA 8021B	10-26-17	10-26-17	
Toluene	ND	1.0	EPA 8021B	10-26-17	10-26-17	
Ethyl Benzene	ND	1.0	EPA 8021B	10-26-17	10-26-17	
m,p-Xylene	ND	1.0	EPA 8021B	10-26-17	10-26-17	
o-Xylene	ND	1.0	EPA 8021B	10-26-17	10-26-17	
Gasoline	ND	100	NWTPH-Gx	10-26-17	10-26-17	
Surrogate:	Percent Recovery	Control Limits		·		
Fluorobenzene	97	66-114				

Project: 1432-001

NWTPH-Gx/BTEX QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1026W1					
Benzene	ND	1.0	EPA 8021B	10-26-17	10-26-17	
Toluene	ND	1.0	EPA 8021B	10-26-17	10-26-17	
Ethyl Benzene	ND	1.0	EPA 8021B	10-26-17	10-26-17	
m,p-Xylene	ND	1.0	EPA 8021B	10-26-17	10-26-17	
o-Xylene	ND	1.0	EPA 8021B	10-26-17	10-26-17	
Gasoline	ND	100	NWTPH-Gx	10-26-17	10-26-17	
0 4	5 . 5	0 , 11: "				

Surrogate: Percent Recovery Control Limits Fluorobenzene 90 66-114

					Source	Per	rcent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Rec	overy	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	10-34	42-01									
	ORIG	DUP									
Benzene	ND	ND	NA	NA		1	NΑ	NA	NA	30	
Toluene	ND	ND	NA	NA		1	NΑ	NA	NA	30	
Ethyl Benzene	ND	ND	NA	NA		1	NΑ	NA	NA	30	
m,p-Xylene	ND	ND	NA	NA		1	NΑ	NA	NA	30	
o-Xylene	ND	ND	NA	NA		1	NΑ	NA	NA	30	
Gasoline	ND	ND	NA	NA		1	NA	NA	NA	30	
Surrogate:											
Fluorobenzene						79	78	66-114			
SPIKE BLANKS											
Laboratory ID:	SB10	26W1									
	SB	SBD	SB	SBD		SB	SBD				
Benzene	50.8	52.5	50.0	50.0		102	105	80-116	3	11	
Toluene	50.5	52.2	50.0	50.0		101	104	82-115	3	12	
Ethyl Benzene	49.7	51.5	50.0	50.0		99	103	80-117	4	12	
m,p-Xylene	49.2	51.2	50.0	50.0		98	102	79-117	4	12	
o-Xylene	49.0	50.8	50.0	50.0		98	102	79-117	4	11	
Surrogate:	·										

85

66-114

Fluorobenzene



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.

7 -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052		naround Required working day			Lá	abo	rato	ry l	Num	ber:	1	0	- 3	36	1										
Phone: (425) 883-3881 • www.onsite-env.com Company:		(Check One)													_										2000000000
tarallon	☐ Same	Day	1 Day												VIS/Q										
1932 - 001	2 Day	/s	3 Days					eau-nb						081B	ss 8270	8151A									
Project Number: 1432-001 Project Name: Kellog's Corner Property Project Managet: See Rounds Sampled by: Daniel Aguilar	Stand	dard (7 Days) analysis 5 Da	ys)	Siers				Acid / SG Clean-up)	Volatiles 8260C Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	ow-level)		Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A				e) 1664A					
Jee Rounds				ontair		3TEX			OC Volatil	1 (Wa	8270I	SIM (Ic		ne Pes	horus	cid He	1etals	/letals		grease)					
Sampled by: Daniel Agrila		(other)		Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	H-Gx	NWTPH-Dx (Volatiles 8260C Halogenated Vo	PA 801	olatiles ow-leve	8270D/	PCBs 8082A	ochlori	dsoydo	nated A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and		% Moisture			
Lab ID Sample Identification	Date Sampled	Time Sampled	Matrix	Numb	NWTP	NWTP	NWTPH-Gx	NWT	Volatii	EDB E	Semiv (with k	PAHs	PCBs	Organ	Organ	Chlori	Total F	Total N	TCLP	HEM (% Moi
1 FMW-1-102517	10-25-1	11049	H20	3		X																			
2 FMW-2-102517		1158																							
2 FMW-2-102517 3 FMW-3-102817 4 FMW-4-102817 5 FMW-5-102817		1238																							
4 FMW-4-102517 5 FMW-5-102517		1302																							
5 FMW-5-10 2517	1	1308	U	1		V																			
		,	4		di i																				
											6														
Signature		ompany				Date			Time		Co	Comments/Special Instructions													
Relinquished		Fara	llon			0	25/1	7	170	O															
Received Amelian		ALPH.	4			19	26/1	7	12.	38															
Relinquished Mim-Sant	_ /	74214	3	ê		19	76/1	7	13.	34	4														
Received		0	re			10	26	12	13.	34															
Relinquished															- Mr. Circle										
Received											Dat	a Pad	ckage	e: Sta	anda	rd 🗆	Le	vel III		Leve	el IV []			
Reviewed/Date		Reviewed/Da	te							,	Chr	omat	ogran	ns wi	th fin	al rep	oort [Ele	ectroni	ic Dat	a Deliv	erable	s (EDI	Ds) []

APPENDIX C TERRESTIRIAL ECOLOGICAL EVALUATION FORM

REMEDIAL INVESTIGATION REPORT Kelloggs Korner Midvale and Emerald Roads Sunnyside, Washington

Farallon PN: 1432-001



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.

Step 1: IDENTIFY HAZARDOUS WASTE SITE

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.

Please identify below the hazardous waste site for which you are documenting an evaluation.									
Facility/Site Name:									
Facility/Site Address:									
/CP Project No.:									
<u>'</u>									
Step 2: IDENTIFY EVALUATOR									
Please identify below the person who conducted the evaluation and their contact information.									
	Title:								
Organization:									
Mailing address:									
State:	Zip code:								
t	P Project No.:								

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 If you answered "NO" or "UKNOWN," then skip to Step 3B of this form. Unknown 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.

В.	Simplified	evaluation.									
1.	Does the Site qualify for a simplified evaluation?										
		es If you answered "YES," then answer Question 2 below.									
	☐ No Unkno	or or own If you answered "NO" or "UNKNOWN," then skip to Step 3C of this form.									
2.	Did you co	nduct a simplified evaluation?									
	☐ Ye	es If you answered "YES," then answer Question 3 below.									
	☐ No	If you answered "NO," then skip to Step 3C of this form.									
3.	Was furthe	r evaluation necessary?									
		es If you answered "YES," then answer Question 4 below.									
	□ No	If you answered "NO," then answer Question 5 below.									
4.	If further ev	valuation was necessary, what did you do?									
		Used the concentrations listed in Table 749-2 as cleanup levels. <i>If so, then skip to</i> Step 4 of this form.									
	Conducted a site-specific evaluation. <i>If so, then skip to</i> Step 3C <i>of this form.</i>										
5.	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 Ar	nalysis: WAC 173-340-7492(2)(b)									
	☐ No potential exposure pathways from soil contamination to ecological receptors.										
	Contaminar	nt 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.	the problem, a	evaluation. A site-specific evaluation process consists of two parts: (1) formulating nd (2) selecting the methods for addressing the identified problem. Both steps tation 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).								
		sed the concentrations listed in Table 749-3 as cleanup levels. <i>If so, then skip to</i> uestion 5 below.								
		sed one or more of the methods listed in WAC 173-340-7493(3) to evaluate and dress the identified problem. <i>If so, then answer Questions 3 and 4 below.</i>								
3.		ted further site-specific evaluations, what methods did you use? apply. See WAC 173-340-7493(3).								
	☐ Lir	terature surveys.								
	☐ So	pil bioassays.								
	□ W	ildlife exposure model.								
	☐ Bi	omarkers.								
	☐ Si	te-specific field studies.								
	□ W	eight of evidence.								
	O	ther methods approved by Ecology. If so, please specify:								
4.	What was the	result of those evaluations?								
	Co	onfirmed there was no problem.								
	Co	onfirmed there was a problem and established site-specific cleanup levels.								
5.	Have you alre problem reso	eady obtained Ecology's approval of both your problem formulation and lution 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 160 th Ave. SE Bellevue, WA 98008-5452	Central Region: Attn: VCP Coordinator 1250 West Alder St. Union Gap, WA 98903-0009							
Southwest Region:	Eastern Region:							
Attn: VCP Coordinator	Attn: VCP Coordinator							
P.O. Box 47775	N. 4601 Monroe							
Olympia, WA 98504-7775	Spokane WA 99205-1295							

