March 28, 2016

Ms. Beth Crocker
HomeStreet Bank
601 Union Street
2000 Union Square, 14th Floor
Seattle, Washington 98101

Re: Phase II Subsurface Investigation
Dominic's Plaza (SeaMar Community Health Centers)
9635 Des Moines Memorial Drive South, Seattle, Washington 98108
RGI Project No. 2016-023

Dear Ms. Crocker:

The Riley Group, Inc. (RGI) has conducted a Phase II Subsurface Investigation (Phase II) for the Dominic's Plaza (SeaMar Community Health Centers) property located at 9635 Des Moines Memorial Drive South, Seattle, Washington (hereafter referred to as the Site, Figure 1).

This Phase II was performed at the request of HomeStreet Bank. The scope of work for this project was performed in accordance with our Environmental Consulting Services Proposal dated January 25, 2016 and approved February 9, 2016.

PROJECT BACKGROUND

Phase I Environmental Site Assessment (2007)

In September 2007, RGI was retained by Frontier Bank to perform a Phase I Environmental Site Assessment (ESA) of the Site (RGI project no. 2007-234). Our findings and conclusions were submitted in our Phase I ESA Report, dated October 2007, and are summarized below:

- A gasoline service station occupied the northern part of the Site from approximately 1950 to the mid-1970s. According to historical records, Fletcher Oil Company (Veltex) was listed as the former gasoline station operator and/or owner[1]. No information was found in the public record regarding the fate of the former underground storage tanks (USTs) or other subsurface improvements (hoists, product piping, etc.) associated with this historical gasoline service station (for example, removed, closed in-place). The storage and dispensing of petroleum products associated with this past use were considered a potential risk to Site soils and/or shallow groundwater quality.
- Mr. Joe Colello, former Site owner, indicated in 2007 that the former fuel USTs had been removed in 1986 and that his contractor (Sato Corporation) had removed the USTs and performed some environmental sampling and testing at that time. Mr. Colello indicated no contamination was found and stated he did not have a copy any reports.

[1] According to internet sources, Fletcher Oil Company began in the 1940s and expanded their operations along "Gasoline Alley" (at present US Highway 23). In early 1990s, it was renamed Lar-Mart which operated until it closed in the 1990s. Fletcher Oil Company appears to continue its operations in Georgia. It is unknown if the Fletcher Oil Company currently headquartered in Georgia is the same Fletcher Oil Company that formerly owned and operated a gasoline service station on the Site.

- A heating oil UST was observed associated with the residence located on the southern portion of the Site. The UST was in-use from the 1950s through at least 2007 and served an oil-fired furnace within the basement of the residence (in service for nearly 60 years).
- In 2003, Clayton Group Services documented diesel- and oil-range total petroleum hydrocarbons (TPH) contamination along the west-adjoining and inferred upgradient Pacific Materials Handling (former Clarklift and Pacific Material Handling) property. The diesel- and oil-range TPH contamination was reportedly associated with a release from a former diesel and/or waste oil UST located on the property. The former diesel and waste oil USTs were located on the southern portion and southeast corner of the property, respectively. The impacted shallow groundwater was discovered along the northern side of west-adjoining property along South 96th Street. The aerial extent and source(s) of the impacted shallow groundwater was not defined. In addition, the 2003 report referenced a steam cleaning pad and oil-water separator located on the southeast corner of the property.
- Based on surface topography, RGI inferred that the groundwater flow direction was to the northeast.

RGI recommended that a Phase II Subsurface Investigation be performed to determine whether the on-Site historical gasoline service station, on-Site heating oil UST, and the historical releases on the west-adjoining property have adversely impacted the soil and/or groundwater quality beneath the Site.

Draft Geophysical Survey and Preliminary Phase II Subsurface Investigation (2007)

In October 2007, Frontier Bank authorized RGI to perform a Geophysical Survey and Preliminary Phase II for the Site (RGI project no. 2007-234B). A geophysical survey was performed at the Site using electromagnetic (EM) and ground penetrating radar (GPR) to traverse the Site across the interpreted area of the former fuel storage tanks associated with the historical gasoline station. A large storage container located on the northern portion of the Site limited the ability for a complete geophysical survey of the area of concern.

On October 26, 2007, RGI advanced a total of ten test probes (SP-01 through SP-10) to maximum depths ranging from 11 of 14 feet below ground surface (bgs), Figure 2. Shallow groundwater was encountered in eight of the ten test probes advanced at the Site, at depths ranging from 3 to 8.5 feet bgs. A groundwater grab sample was collected from each test probe where groundwater was encountered.

Our findings and conclusions were submitted in our Draft Preliminary Phase II dated November 7, 2007, and are summarized below:

- Soil and groundwater in the vicinity of the residential heating oil UST contained concentrations of diesel- and oil-range TPH above the applicable Model Toxics Control Act (MTCA) Method A cleanup levels. The concentration of diesel-range TPH in the groundwater grab sample collected downgradient of the UST contained 1,500,000 parts per billion (ppb) diesel-range TPH, which may represent free-product floating on the groundwater. The extent of the contamination was unknown.
- One of the test probes in the vicinity of the former fuel UST nest and pump islands located on the northern portion of the Site encountered groundwater containing concentrations of gasoline- and diesel-range TPH and benzene at concentrations exceeding their

respective MTCA Method A cleanup levels. These findings indicated that a release from the former gasoline fuel UST system had occurred.

- One of the test probes (SP-04) was advanced along the western Site boundary, in the inferred down-gradient direction from the west-adjoining property, formerly the Clarklift property. A groundwater grab sample from SP-04 contained elevated concentrations of diesel- and oil-range TPH, cis-1,2-dichloroethene (cis-1,2-DCE), and vinyl chloride (VC), all of which exceeded the applicable MTCA Method A or B cleanup levels. The extent of the groundwater contaminant plume was not known. Based on the inferred groundwater flow direction, "the potential" existed that the west-adjoining property had adversely affected shallow groundwater quality beneath the Site.

No recommendations were provided in our DRAFT Preliminary Phase II.

Supplemental Phase II (2008)

SeaMar Community Health Centers authorized RGI to perform a Supplemental Phase II for the Site, including the installation and sampling of seven groundwater monitoring wells and two additional test probes (RGI project no. 2007-234C).

A geophysical survey was performed at the Site, using EM and GPR to traverse the Site in an area previously occupied by a large storage container (in 2007). No anomalies suggestive of abandoned USTs were identified in the geophysical surveyed area.

On January 2 and 3, 2008, RGI advanced a total of nine test probes (B1/MW1 through B7/MW7, B8, and B9) to maximum depths of 10 feet bgs (Figure 2). Seven of the test probes were completed as groundwater monitoring wells. Shallow groundwater was encountered at depths ranging from 1.3 to 8 feet bgs.

Our findings and conclusions were submitted in our Supplemental Phase II dated January 30, 2008, and are summarized below:

- Based on the seven groundwater monitoring wells, shallow groundwater flow direction was reported to the northeast.
- The extent of soil and groundwater contamination as a result of a release from the residential heating oil UST appeared to be limited to the immediate vicinity of the UST. RGI recommended the removal of the heating oil UST, excavation and off-Site transport of the petroleum impacted soils, periodic dewatering of contaminated groundwater until acceptable levels of TPH were reached, and subsequent compliance groundwater monitoring.
- Shallow soils from two borings in the vicinity of the former gasoline service station located on the northern portion of the Site contained elevated concentrations of diesel- and oil-range TPH, carcinogenic polynuclear aromatic hydrocarbons (cPAHs), and/or metals exceeding the applicable MTCA Method A cleanup levels. Two other borings in the vicinity intercepted shallow soils containing either non-detectable levels (below the laboratory detection limit) or concentrations below the applicable cleanup level. RGI recommended remedial excavation and removal of contaminated soils.
- Groundwater in MW7, located close to the eastern Site boundary, and inferred down-gradient location of the former gasoline service station, contained concentrations of benzene and gasoline- and diesel-range TPH that exceeded the applicable MTCA Method

A cleanup levels. It was considered likely that the groundwater contamination plume associated with the former gasoline station extended, in some degree, off the Site to the north-northeast. RGI recommended additional subsurface investigation to better define the nature and extent of contamination. In addition, RGI proposed the implementation of in-situ chemical oxidation (ISCO) as one method to remediate contaminated groundwater underlying the northern portion of the Site.

- Groundwater encountered in SP-04 and MW4, both located along the western Site boundary, intercepted shallow soil and groundwater with elevated concentrations of diesel- and oil-range TPH, VC, cis-1,2-DCE, and/or TCE that exceeded the applicable MTCA Method A or B cleanup levels. Based on a northerly groundwater flow direction, RGI concluded that the source of the halogenated VOCs (including TCE, cis-1,2-DCE, and VC) in groundwater along the Site's western property boundary was unknown. In addition, RGI concluded groundwater remediation using ISCO was a possible remedial alternative.

Phase I Environmental Site Assessment (2016)

In February 2016, RGI was retained by HomeStreet Bank to perform a Phase I ESA of the Site (RGI project no. 2016-023). Our findings and conclusions were submitted in our Phase I ESA Report, dated March 15, 2016, and are summarized below:

- **Historical Gasoline Service Station:** Two generations of former gasoline service stations occupied the Site from at least 1953 through 1978 (25 years). As previously stated in the 2007 Phase I ESA, Fletcher Oil Company (Veltex) was listed as the former gasoline station operator and/or owner. The historical use, handling, storage, and disposal of petroleum products, solvents, and other wastes typically associated with gasoline service stations were unknown. The USTs were likely removed sometime between 1978 and 2007, although the exact date is unknown. Based on RGI's previous subsurface investigations, a release to soil and groundwater from the former USTs was identified. The release to the groundwater appeared limited, although the extent had not been well defined. The historical gasoline service station and associated soil and groundwater contamination was considered a REC.

- **Heating Oil UST:** A heating oil UST vent pipe and fill pipe were observed to the west of the residence. The UST is no longer in use. However, the UST was approximately half full with product. The UST is estimated to be 300 gallons in size. Previous sampling in the vicinity of the UST indicated that a release had occurred to the soil and groundwater. Based on a groundwater grab sample collected in 2007, concentrations of TPH in the groundwater were quite high, possibly representing free product floating on the groundwater in the immediate vicinity of the UST. However, the contamination appeared to be limited to the immediate vicinity of the UST based on groundwater samples collected from three monitoring wells in the vicinity of the UST in 2007. The heating oil UST and known soil and groundwater contamination was considered a REC.

- **West-Adjoining Property:** A previous environmental report for the west-adjoining (inferred up-gradient) property identified groundwater contamination on the west-adjoining property. Halogenated volatile organic compounds (HVOCs), likely associated with a former parts washing area located on the southeast corner of the west-adjoining property, were detected in the groundwater monitoring well on the Site located closest to the west-adjoining property (MW4). Bioremediation techniques were used on the west

-adjoining property in an attempted cleanup of the HVOC contamination in the groundwater. The HVOCs detected in the groundwater posed a potential risk to the groundwater and soil vapor quality beneath the Site.

RGI recommended that a Phase II Subsurface Investigation (Phase II) be performed in the vicinity of the western Site boundary to assess the extent and nature of the known groundwater contamination on the west adjoining property, as well as to further define the contamination associated with the former gasoline service station and abandoned heating oil UST on the Site.

In February 2016, HomeStreet Bank authorized RGI to perform services associated with the Phase II activities.

SCOPE OF SERVICES

The scope of services performed for this 2016 Supplemental Phase II investigation project included the following tasks:

- Performed a geophysical survey in an attempt to determine the orientation of the abandoned heating oil UST, as well as any buried utilities, abandoned product piping lines, or former UST nests associated with the former gasoline service station.
- Advanced seven test probes (P1 through P4, MW8 through MW10) in suspect areas for to a maximum depth of 15 feet bgs for soil and groundwater sampling. Test probes MW8 to MW10 were completed as groundwater monitoring wells.
- Install one shallow soil vapor test well (SVI) for purposes of collecting sub-slab soil vapor samples and evaluating the potential for any vapor intrusion.
- Collected and submitted select soil, groundwater, and soil vapor samples for laboratory analyses of potential contaminants of concern.
- Compared analytical results to the applicable and routine Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) cleanup levels.
- Prepared this report presenting our findings, observations, conclusions, and recommendations.

For reference, RGI's 2007 and 2008 soil and groundwater analytical data are incorporated into this report and are summarized in the attached Figures and Tables. In addition, groundwater monitoring results reported by Shannon and Wilson (S&W)[2] for the on-Site wells (MW-1 through MW-7) from 2013 through 2014 are incorporated herein.

REGULATORY FRAMEWORK

Washington's hazardous waste cleanup law, the Model Toxics Control Act (Chapter 70.105D RCW), mandates the necessity for site cleanups to protect human health and the environment. The MTCA Cleanup Regulation (Chapter 173-340 WAC) defines the approach for establishing cleanup requirements for individual sites, including the establishment of cleanup standards and selection of cleanup actions.

[2] S&W has been providing environmental consulting and cleanup services on and for the current/or former west-adjoining property owner. As part of S&W's services, they have been periodically monitoring the groundwater monitoring wells installed by RGI on the subject Site.

The MTCA Cleanup Regulation provides three options for establishing generic and site-specific cleanup levels for soil and groundwater. Method A cleanup levels have been adopted for specific purposes and are intended to provide conservative cleanup levels for sites undergoing routine site characterization or cleanup actions or those sites with relatively few hazardous substances. Method B and C cleanup levels are set using a site risk assessment, which focus on the use of "reasonable maximum exposure" assumptions based on site-specific characteristics and toxicity of the contaminants of concern.

For purposes of comparison, soil and groundwater analytical laboratory data for this project were compared to MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses and MTCA Method A Cleanup Levels for Ground Water (considered protective of drinking water). If MTCA Method A cleanup levels were unavailable, MTCA Method B cleanup levels were referenced.

Sub-slab soil vapor analytical data for this project were compared to Ecology's Routine Screening Levels established in Ecology's Draft *Guidance for Evaluating Vapor Intrusion in Washington State: Investigation and Remedial Action* (Ecology Draft VI Guidance) dated October 2009, and as subsequently amended. The Ecology Draft Guidance supports implementation of the MTCA regulation and contains conservative soil vapor screening levels that are considered protective of MTCA Method B and C Indoor Air Cleanup Levels.

GEOPHYSICAL SURVEY

A geophysical survey was performed at the Site on February 29, 2016. Mt. View Locating Services LLC, a geophysical contractor, was subcontracted and supervised by RGI to perform the survey using geophysical exploration methods. The survey utilized EM and GPR to traverse the suspected location of the former gasoline service station and the abandoned residential heating oil UST. The survey was performed to the north of the existing commercial building and to the west of the vacant single-family residence.

The size of the residential heating oil UST was determined to be approximately 3 feet in diameter and 5 feet in length and is oriented north to south.

No abandoned fuel USTs or product piping were identified on the northern portion of the Site (former gasoline service station location).

EM/GPR survey techniques typically provide good information on the location of possible USTs and other buried objects. However, because of the numerous variables involved in geophysical investigations, there is a possibility that some subsurface features may not be detected, including possible USTs. Other buried features, such as foundations, pipes, rubble, may complicate the interpretation of the geophysical data.

SUBSURFACE INVESTIGATION AND SAMPLING

Private and Public Utility Locate

At least 48 hours prior to commencing our subsurface investigation, RGI contacted One-Call to locate known public underground utilities near, or on, the Site. Public underground utilities located included electric, natural gas, telecommunications, water, sewer, and cable.

RGI also retained a private utility locator to locate private water, natural gas, electric, and other metallic underground utility conduits potentially located in the proposed test probe locations.

Subsurface Investigation

On March 4, 2016, RGI advanced a total of four test probes (P1 through P4,) to a maximum depth of 15 feet bgs. RGI also drilled and installed three groundwater monitoring wells (MW8 through MW10) to a maximum depth of 12.5 feet bgs, and installed one soil vapor well to a depth of 3.5 feet bgs. The test probe, monitoring well, and soil vapor well locations are shown on the included Figures. The test probe and well installations were completed using a track-mounted, direct push test probe rig (Geoprobe 7730DT).

One test probe, one monitoring well and the soil vapor well (P1, MW8, and SV1, respectively) were located near the western Site boundary to assess potential groundwater and soil vapor impacts from the former Clarklift west-adjoining property.

Test probe P2 was located to the north of the existing Site building to better define the eastern extent of the known groundwater contamination plume, identified by others in 2014.

Test probes P3 and P4 and monitoring well MW9 were located west of the former gasoline service station located on the Site to better define the extent of TPH and metals contamination identified in 2008.

MW10 was located on the Site in the inferred down-gradient groundwater flow direction of the residential heating oil UST to better define the extent of contamination from the UST.

Test probe logs and monitoring well construction details are included in Appendix A of this report.

All drilling and sampling equipment were cleaned prior to commencing probing and in between sampling and boring locations. All field sampling and decontamination procedures were performed in accordance with RGI's standard sampling and decontamination protocols.

All soil cuttings, purge and decontamination water were contained on the Site in two 55-gallon drums and left on the Site. Disposal of the drums is not included in this scope of work.

Subsurface Conditions

During all drilling activities, soil samples were collected, inspected, and classified by RGI's field geologist. Soil conditions encountered were described using the Unified Soil Classification System (USCS). Subsurface soils encountered during drilling generally consisted of silty fine to medium sand with varying amounts of gravel to the maximum depth explored (15 feet bgs). Interbedded peat layers were encountered in some locations.

Shallow groundwater was encountered during RGI's subsurface investigation at depths of approximately 2 to 7 feet bgs.

Soil Sampling

A total of 18 discrete soil samples were collected during this project. In general, samples were collected at 2.5- to 5-foot depth intervals and at depths corresponding to those of suspected point sources, or if field screening indicated the presence of suspect contamination.

Soil samples were screened in the field for the presence of volatile organic compounds (VOCs) using a portable photoionization detector (PID). PID field screening results are given in Table 1. Soil samples collected from the Site had field screening results ranging from 0.0 to 13.1 volumetric parts per million (Vppm). The highest PID reading was encountered in a composite sample collected from soils cuttings from MW9, from a depth of approximately 1 to 2 feet bgs.

Groundwater Grab Sampling

Groundwater grab samples were collected from all four test probes P1 through P4. The groundwater grab samples were collected through a 1-inch-diameter temporary well screen down the hole using a peristaltic pump and disposable plastic tubing under low-flow conditions.

Groundwater grab samples may not be representative of groundwater conditions or quality (due to the increased sample turbidity associated with this sampling method).

Groundwater Monitoring Well Construction and Well Development

Monitoring wells MW8, MW9, and MW10 were completed at depths ranging from 10 to 12.5 feet bgs. All wells consisted of 0.75-inch diameter pre-sand packed monitoring wells manufactured by Geoprobe System, Inc.

The annular space around the screened interval was filled with silica sand pack. The sand extended one foot above the top of the well screen. Hydrated bentonite chips were placed above the sand pack to a depth of approximately 1-foot bgs. Ready mix concrete was placed on top of the bentonite seal. Wells were completed with traffic-grade flush mount steel monuments and locking well plug.

Groundwater monitoring well construction details are shown in logs included in Appendix A.

All well development and purge water was placed in a 55-gallon steel drum and left on the Site.

Groundwater Monitoring Well Elevations and Flow Direction

RGI measured the top of casing (TOC) elevations for each new well using a laser level. TOC elevations for the new wells were compared to the TOC elevations for the previously installed wells. TOC elevations were based on an arbitrary reference datum of 10 feet above mean sea level (amsl).

RGI measured depth to groundwater at each well using an electronic water level meter. Depth to static groundwater was approximately 0.0 to 5.96 feet bgs below TOC.

Corresponding groundwater elevations, as measured on March 7, 2016, ranged from 4.09 feet (at MW6) to 23.6 feet (at MW1) with an apparent groundwater flow direction to the north-northwest (see Figure 4). The groundwater gradient was determined to be approximately 0.033 feet per foot.

The groundwater flow direction measured in March of 2016 was slightly different than the north-northeast groundwater flow direction measured (albeit with fewer wells) in 2008. Groundwater flow directions are subject to seasonal variations.

Groundwater Monitoring Well Sampling

On March 7, 2016, RGI developed and purged each of the newly constructed groundwater monitoring wells and all formerly installed monitoring wells (except for monitoring well MW-3).

Well purging was performed using a submersible pump and continued until general water chemistry readings stabilized (for example, pH, conductivity, and dissolved oxygen). These general water chemistry parameters were measured and recorded in the field using a YSI multi-parameter water meter with flow thru-cell.

Groundwater samples were collected using a low-flow peristaltic sampling pump.

Soil Vapor Sampling

Soil vapor samples SV1A and SV1B were collected from soil vapor well SV1. The soil vapor well was installed to a depth of approximately 3 feet bgs. Due to the location of underground utilities, the soil vapor well was located approximately 15 feet west of the existing commercial building.

The soil vapor test well was constructed with 6-inch long, 0.75-inch diameter, 0.020 slot well screen; 0.75-inch-diameter SCH 40 PVC well casing, and was finished with standard traffic-rated flush-mounted steel monument. Sand pack around the well's screened interval consisted of #10 to #20 silica sand. The test well casing was sealed with hydrated granular and chip bentonite.

A shut in test was performed to verify that there were no leaks in the sampling assembly prior to sampling. The soil vapor probe tubing was attached to a 60 milliliter (mL) syringe via a three-way fitting and isolation valve, and at least three casing volumes of soil vapor were purged from the soil vapor test well and sand packed area of the surrounding borehole prior to sampling.

After purging, the soil vapor probe tubing was connected to the Summa canister using a quick connect fitting. All soil vapor samples collected during this project were transferred into laboratory supplied (batch certified) evacuated 400 mL Summa canisters. Upon connection to the Summa canisters, the vacuum gauge reading was recorded in the field notebook. The soil vapor probes were attached via clean tubing to a Summa canister sampling assemble consisting of a 0 to 30-inch vacuum gauge and a 150 mL/minute flow restrictor and associated fittings.

Following soil vapor sample collection, the regulator valve was closed and the time it took to fill the 400 mL summa canister was recorded. The sampling assembly was disconnected and capped with a rubber protective cover supplied by the analytical testing laboratory. A gas analyzer equipped with a PID was used to field-screen the soil vapor test probe for the presence of VOCs, and the PID reading was recorded in the field notebook. The PID reading was 0.5 Vppm in SV1.

Sampling Protocols

Samples were collected in accordance with standard operating and decontamination procedures. Prior to each sampling attempt, the sampling equipment and sampling tools were decontaminated by washing in an aqueous detergent solution consisting of a non-phosphate detergent and potable water, and then rinsing with potable water.

Samples were placed in preconditioned, sterilized containers provided by an Ecology-accredited analytical laboratory. If soil samples were collected for analysis of VOCs, they were collected using the Environmental Protection Agency's Method 5035 sampling method.

The samples were placed in a chilled cooler throughout the field program, with all subsequent transportation and transfer accomplished in strict accordance with RGI's chain-of-custody procedures.

Analytical test certificates, including quality control, data, and chain-of-custody documentation for all samples submitted to the analytical testing laboratory by RGI as part of this Phase II are included in Appendix B. All test probes were abandoned using hydrated bentonite chips.

ANALYTICAL LABORATORY ANALYSIS

Soil and groundwater samples were submitted to Friedman & Bruya, Inc. (FBI), an Ecology-accredited, third-party analytical laboratory. A total of 6 soil samples, four groundwater grab samples, and 9 groundwater monitoring well samples were selected for laboratory analysis. The samples were analyzed for one or more of the following contaminants of concern:

- Diesel- and oil-range TPH using Northwest Test Method TPH-Dx with silica gel cleanup (which removes naturally occurring biogenic material) for soil samples, and without silica gel cleanup for groundwater samples.
- Gasoline-range TPH using Northwest Test Method TPH-Gx.
- Benzene, ethylbenzene, toluene, and xylenes (BTEX) using EPA Test Method 8021B.
- Halogenated VOCs (HVOCs) using EPA Test Method 8260C.
- Metals using EPA Methods 200.8.
- Toxicity Characteristic Leachate Procedure (TCLP) Metals using EPA Test Method 200.8 and 40 CFR Part 261.

The soil vapor sample Summa canister collected from SV1 was submitted to H & P Mobile Geochemistry, Inc., an Ecology-accredited, third-party analytical laboratory. The soil vapor sample was analyzed for the following:

- Select VOCs using EPA Test Method TO-15

Laboratory Analytical Results

Analytical results from this 2016 Supplemental Phase II subsurface investigation and the applicable MTCA Method A and B cleanup levels are summarized in the attached Tables 1 through 3, are depicted graphically on Figures 3 through 5, and are discussed below.

RGI's 2007 and 2008 soil and groundwater analytical data are summarized in the attached Figures and Tables. In addition, groundwater monitoring results reported by S&W for the on-Site wells (MW1 through MW7) from 2013 through 2014 are incorporated in Figure 4 and Table 2.

Soil Analytical Results

Contaminants of concern detected in soil above the MTCA Method A cleanup levels were identified in samples collected from P1 and MW9. Both P1 and MW9 were located in the vicinity of the former gasoline service station building (on the northernmost parcel of the Site).

A shallow soil sample collected from P1 at a depth of 4.5 feet bgs contained diesel- and oil-range TPH at concentrations of 880 mg/kg and 2,900 mg/kg, respectively. This total TPH concentration exceeds the MTCA Method A Soil Cleanup Level of 2,000 mg/kg.

The composite soil sample from MW9 (MW9-comp), representing soils at 1- to 2- foot bgs, had an diesel- and oil-range TPH concentration of 4,900 mg/kg and 14,000 mg/kg, respectively. In addition, this sample had a total cadmium and lead concentration of 4.75 mg/kg and 1,490 mg/kg, respectively, which exceeded their respective cleanup levels of 2 mg/kg and 250 mg/kg. The TCLP metals analysis for sample MW9-comp had a TCLP lead concentration of 2.53 mg/kg, below the hazardous waste level of 5 mg/kg. These shallow soils encountered at MW9 displayed a black-oily residue, characteristic of used oil.

Depth of soil contamination encountered at P1 and MW9 ranged from 2 to 4.5 feet bgs.

The contaminants of concern for all other soil samples collected and analyzed during this 2016 subsurface investigation were either non-detect, or had concentrations below the applicable MTCA Method A cleanup levels.

Groundwater Analytical Results

Groundwater analytical results from the test probes and existing groundwater monitoring wells are summarized in the attached Figure 4 and Table 2.

Test Probes P1 to P4

Contaminants of concern detected in groundwater grab samples collected from test probes P1 through P4 were either not detected at concentrations above the laboratory detection limit, or were detected at concentrations below their applicable MTCA Method A or Method B Cleanup Levels.

Monitoring Wells MW-1 to MW-3 and MW10

Groundwater samples collected from monitoring wells MW-1 to MW-3 and MW-10 located in the vicinity of the existing out-of-service residential heating oil UST had non-detectable concentrations of diesel- and oil-range TPH.

Note: Groundwater grab samples collected from test probe SP-01 in 2007, immediately adjacent to the heating oil UST, had high TPH concentrations indicating the possible presence of free product.

Monitoring Well MW4

Monitoring well MW4 is located along the western Site property boundary and inferred downgradient of the west-adjoining property.

From 2013 through 2014, TCE, VC, and cis-1,2-DCE concentrations in groundwater have ranged from 9.05 µg/L to 7.02 µg/L, 14.6 µg/L to 6.43 µg/L, and 38 µg/L to 31.9 µg/L, respectively (as reported by S&W).

RGI's 2016 results indicated TCE, VC, and cis-1,2-DCE concentrations in groundwater of non-detect, 4.6 µg/L and 7.4 µg/L, respectively.

In general, HVOC concentrations in groundwater at MW4 appear to have decreased over time-which may be the result of S&W's 2014 chemical injections performed on the west-adjoining property. However, the VC concentrations in groundwater have remained fairly constant, or stable, over the last two years.

No other contaminants of concern were detected in groundwater at MW4 (for example, TPH, BTEX, and metals).

Monitoring Well MW5

Monitoring well MW5 is located along the western Site property boundary and inferred downgradient of the west-adjoining property.

From 2008 through March 2016, groundwater samples collected by RGI and S&W from monitoring well MW5 had non-detectable concentrations of TPH (as gasoline, diesel, and oil), BTEX, and/or HVOCs.

Monitoring Well MW6

Monitoring well MW6 is located north, and inferred downgradient, of the former gasoline service station.

From 2008 through March 2016, groundwater samples collected by RGI and S&W from monitoring well MW6 had either non-detectable concentrations of TPH (as gasoline, diesel, and oil), BTEX, and/or HVOCs; or had trace concentrations well below applicable cleanup levels.

Monitoring Well MW7

Monitoring well MW7 is located in the immediate vicinity of the former gasoline service station pump island area.

In March 2016, groundwater samples collected by RGI had concentrations of gasoline-range TPH, diesel-range TPH, and benzene of 2,500 µg/L, 1,500 µg/L, and 11 µg/L, respectively. These concentrations exceed their respective MTCA Method A Cleanup Levels for Ground Water of 800 µg/L, 500 µg/L, and 5 µg/L, respectively. *Note: The laboratory noted that the sample chromatographic pattern for the diesel-range TPH detection did not resemble the fuel standard used for quantitation ("x" flag), which is possibly due to high quantities of organic material present in the subsurface.*

In 2013 and 2014, groundwater samples collected by S&W had non-detectable concentrations of BTEX and HVOCs. S&W did not sample and analyze groundwater for TPH (as gasoline, diesel, and oil) during their 2013 and 2014 groundwater sampling events.

Monitoring Well MW8

Monitoring well MW8 is located along the western Site property boundary and immediately adjacent to the west-adjoining property's HVOC cleanup area.

In March 2016, TCE was detected in groundwater at MW8 at a concentration of 20 µg/L, which exceeds the MTCA Method A Cleanup Level for Ground Water of 5 µg/L. Diesel-range TPH, cis-1,2-DCE, and 1,1-DCE were also detected in this groundwater sample, although at concentrations below their applicable cleanup levels.

Monitoring Well MW9

Monitoring well MW9 is located in central portion of the northern parcel, coinciding where the black oil-stained shallow soils were encountered in 2007 and 2016.

In March 2016, groundwater samples collected from well MW-9 had non-detectable concentrations of gasoline- and oil-range TPH, HVOCs, and metals. Diesel-range TPH was detected at a concentration of 730 µg/L in MW9. *Note: The laboratory noted that the sample chromatographic pattern for the diesel-range TPH detection did not resemble the fuel standard used for quantitation ("x" flag), which is possibly due to high quantities of organic material present in the subsurface.*

Soil Vapor Analytical Results

One soil vapor sample (SV1A) was submitted for analysis from soil vapor well SV1, installed west of the existing Site building. The results are summarized in the attached Figure 5 and Table 3.

TCE was detected at a concentration of 140 µg/m^3, which exceeds the MTCA Method B Sub-Slab Soil Gas Screening Level of 12.3 µg/m^3.

PCE was detected at a concentration of 7.9 micrograms/cubic meter (µg/m^3), which is below the MTCA Method B Sub-Slab Soil Gas Screening Level of 321 µg/m^3.

According to Ecology's Draft VI Guidance, the elevated TCE soil vapor concentration, exceeding the Soil Gas Screening Level, will result in exceeding the indoor air cleanup level in an overlying structure. However, the Ecology Soil Screening Levels are conservatively low and require further evaluation to determine their risk to indoor air quality.

CONCLUSIONS

Based on our 2016 Phase II findings, RGI concludes the following:

- Petroleum hydrocarbon (as diesel fuel) impacts to the shallow soils and groundwater in the vicinity of the heating oil UST appear to be limited to the vicinity of the heating oil UST. Free product is likely present in the immediate vicinity of the UST. As of March 2016, the out-of-service heating oil UST was half full of heating oil fuel and water. The UST should be properly pumped out, decommissioned and/or removed as soon as possible.

- Soil and/or groundwater samples collected in the vicinity of the former gasoline service station had concentrations exceeding the MTCA Method A Cleanup Levels for TPH (as gasoline, diesel, and/or oil), metals (for example, cadmium and lead), and/or benzene. The soil and/or groundwater contamination occurs at the following areas: (1) underlying the former pump island and possible product line locations; and (2) in the vicinity of MW9 (possible former waste oil drum storage area). The vertical extent of soil contamination at these two area generally appears limited to the surficial soils to depths ranging between 2.5 feet to 4.5 feet bgs.

  Soil and/or groundwater samples collected along the western Site boundary, inferred downgradient of the west-adjoining property, had elevated concentrations of diesel- and oil-range TPH, TCE, VC, and/or cis-1,2-DCE. The contamination along the western boundary of the Site likely originated from the west-adjoining property (with known TPH and HVOC contamination in soil and groundwater).

  RGI recommends that contaminated soil and groundwater be remediated and brought into compliance with the substantive requirements of MTCA. RGI will prepare a Conceptual Cleanup Action Scope of Work and Budget under separate cover.

- The sub-slab soil vapor sample collected from the soil vapor well SV1 had a TCE concentration of 140 µg/m^3, which exceeds the MTCA Method B Sub-Slab Soil Gas Screening Level of 12.3 µg/m^3. According to Ecology Draft Guidance, the concentration suggests a potential vapor intrusion concern. RGI will further evaluate the soil vapor data and potential for vapor intrusion under separate cover.

According to Washington Administrative Code (WAC) Chapter 173-340-300(2)(a), "any owner or operator who has information that a hazardous substance has been released to the environment at the owner or operator's facility and may be a threat to human health or the environment shall report such information to the department [Ecology] within ninety days of discovery."

Based on the discovery of contamination during this Phase II subsurface investigation, RGI recommends that the Client (HomeStreet Bank) notify the owner/operator of the Site of their release reporting requirements to Ecology as promulgated under WAC 173-340-300. Under WAC 173-340-300, the owner or operator of the Site shall report such information regarding this encountered contamination to Ecology within 90 days of discovery. The release report can be made by contacting the Ecology Northwest Regional Office at (425) 649-7229 and by mailing a copy of this report to the Ecology Northwest Regional office located at 3190 160th Avenue SE, Bellevue,

Washington 98008-5452. Upon written request, RGI can contact, or submit a copy of this report to, Ecology on behalf of the Site Owner.

LIMITATIONS

This report is the property of RGI, HomeStreet Bank, SeaMar Community Health Centers, and its authorized representatives or affiliates and was prepared in a manner consistent with the level of skill and care ordinarily exercised by members of the profession currently practicing in the same locality and under similar conditions. This report is intended for specific application to the Dominic's Plaza property located at 9635 Des Moines Memorial Drive South, Seattle, Washington. No other warranty, expressed or implied, is made.

The analyses and recommendations presented in this report are based upon data obtained from our review of available information at the time of preparing this report, our test borings drilled on the Site, or other noted data sources. Conditional changes may occur through time by natural or human-made process on this or adjacent properties. Additional changes may occur in legislative standards, which may or may not be applicable to this report. These changes, beyond RGI's control, may render this report invalid, partially or wholly. If variations appear evident, RGI should be requested to reevaluate the recommendations in this report.

Please contact us at (425) 415-0551 if you have any questions or need additional information.

Sincerely,

THE RILEY GROUP, INC.

for

Anna J. Jordan, LG
Project Geologist

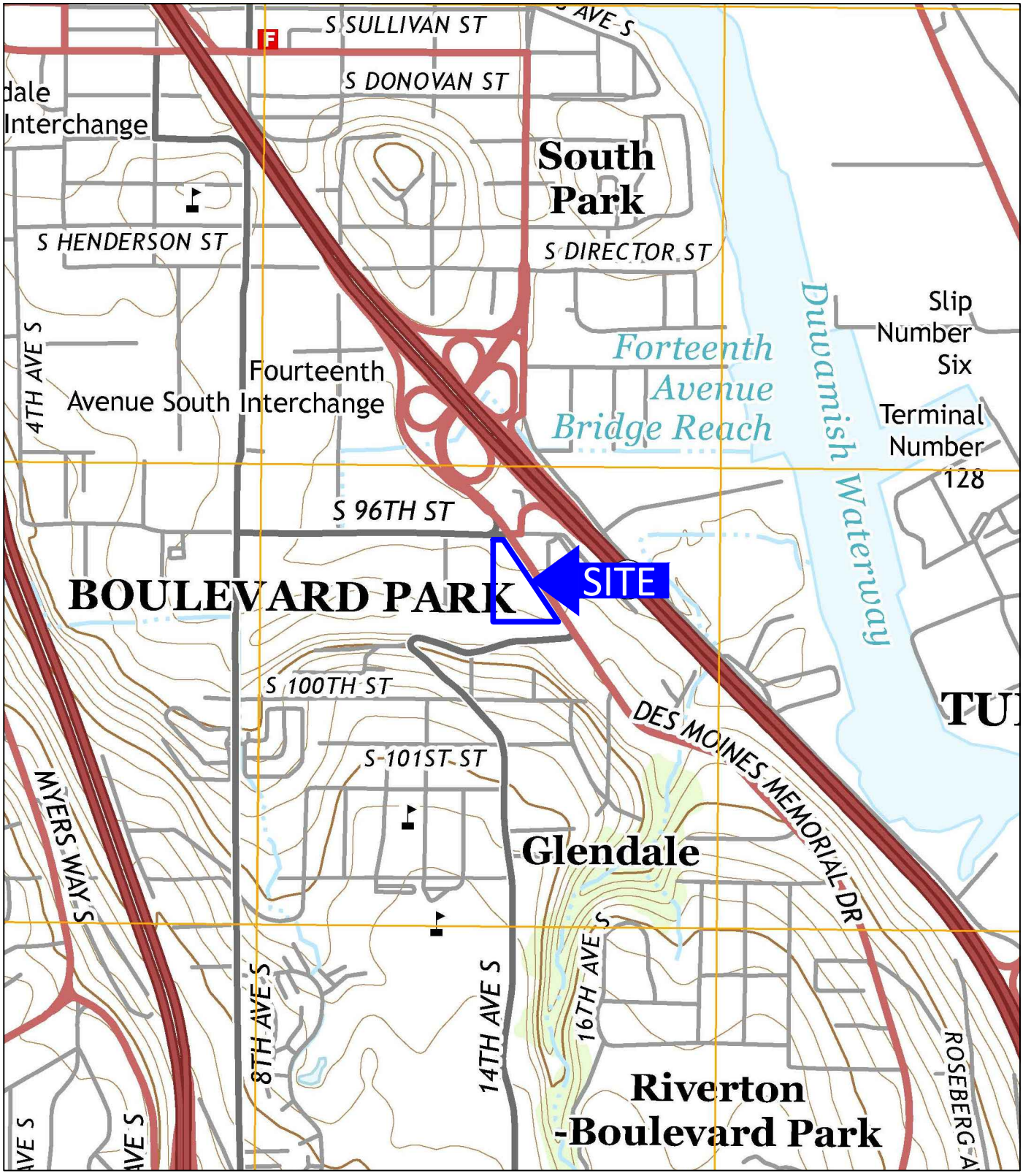
Paul D. Riley, LG, LHG
Principal

Paul D. Riley

Attachments

Figure 1, Site Vicinity Map
Figure 2, Site Plan Showing Monitoring Well and Test Probe Locations
Figure 3, Site Plan Showing Monitoring Well and Test Probe Locations with Soil Analytical Laboratory Results
Figure 4, Site Plan Showing Monitoring Well and Test Probe Locations with Groundwater Analytical Laboratory Results
Figure 5, Site Plan Showing Monitoring Well and Test Probe Locations with Soil Vapor Analytical Laboratory Results
Table 1, Summary of Soil Sample Analytical Laboratory Results
Table 2, Summary of Groundwater Grab Sample Analytical Laboratory Results
Table 3, Summary of Soil Vapor Sample Analytical Laboratory Results
Appendix A, Test Probe, Groundwater Monitoring, and Soil Vapor Well logs
Appendix B, Analytical Laboratory Reports and Chains of Custody

Distribution *HomeStreet Bank (PDF)*



USGS, 2014, Seattle South, Washington
7.5-Minute Quadrangle

Approximate Scale: 1"=1000'

0 500 1000 2000

N

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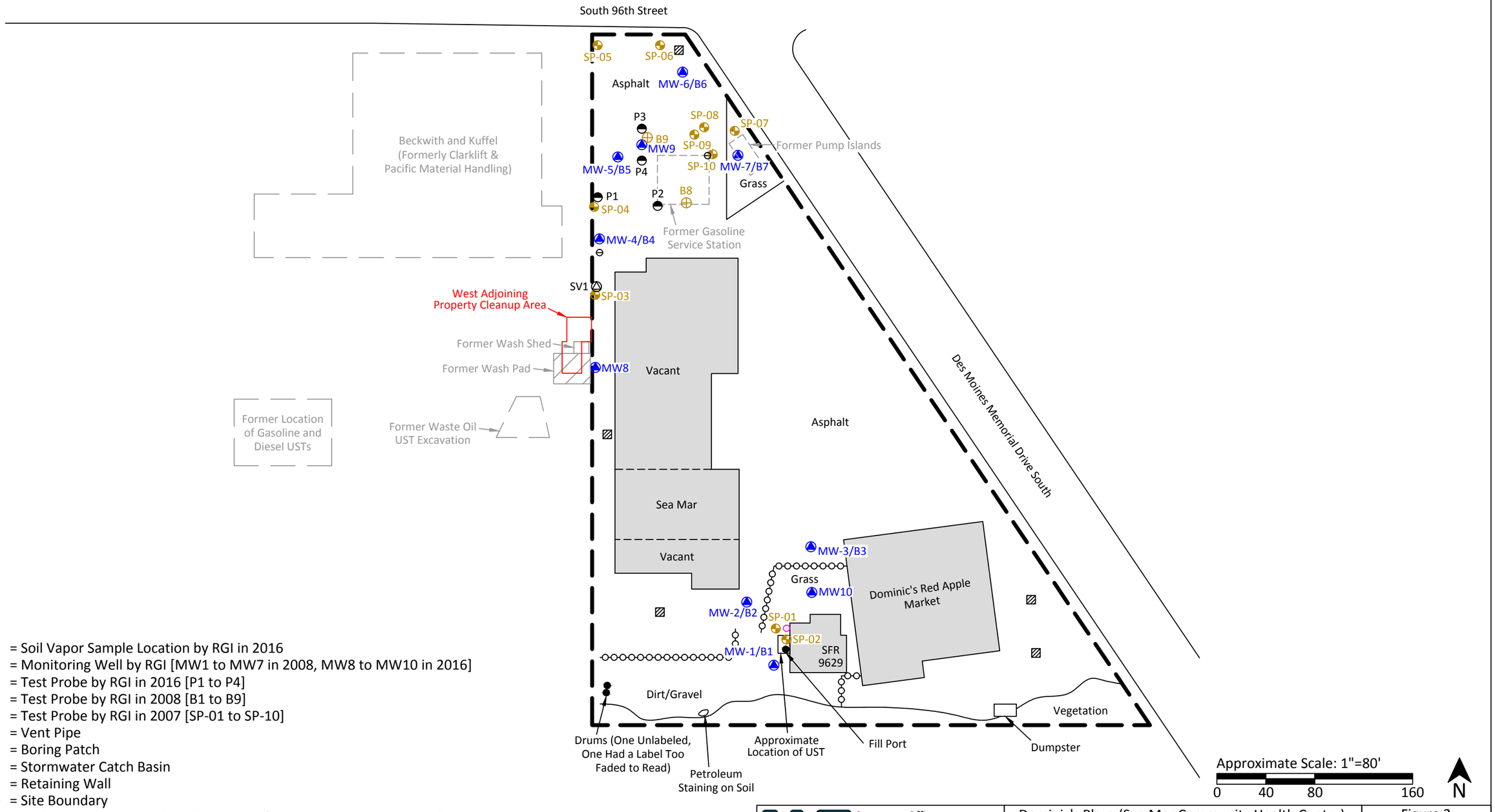
Dominic's Plaza (Sea Mar Community Health Center)		Figure 1
RGI Project Number 2016-023	Site Vicinity Map	Date Drawn: 03/2016
Address: 9635 Des Moines Memorial Drive South, Seattle, Washington 98108		



= Soil Vapor Sample Location by RGI in 2016
= Monitoring Well by RGI [MW1 to MW7 in 2008, MW8 to MW10 in 2016]
= Test Probe by RGI in 2016 [P1 to P4]
= Test Probe by RGI in 2008 [B1 to B9]
= Test Probe by RGI in 2007 [SP-01 to SP-10]
= Vent Pipe
= Boring Patch
= Stormwater Catch Basin
= Retaining Wall
= Site Boundary

Note: Excavation, Water Shed, and Water Pad drawn from site plans by Shannon & Wilson, October 2014

Note: Previous borings and monitoring wells located on the west-adjoining Beckwith and Kuffel property are not shown here.

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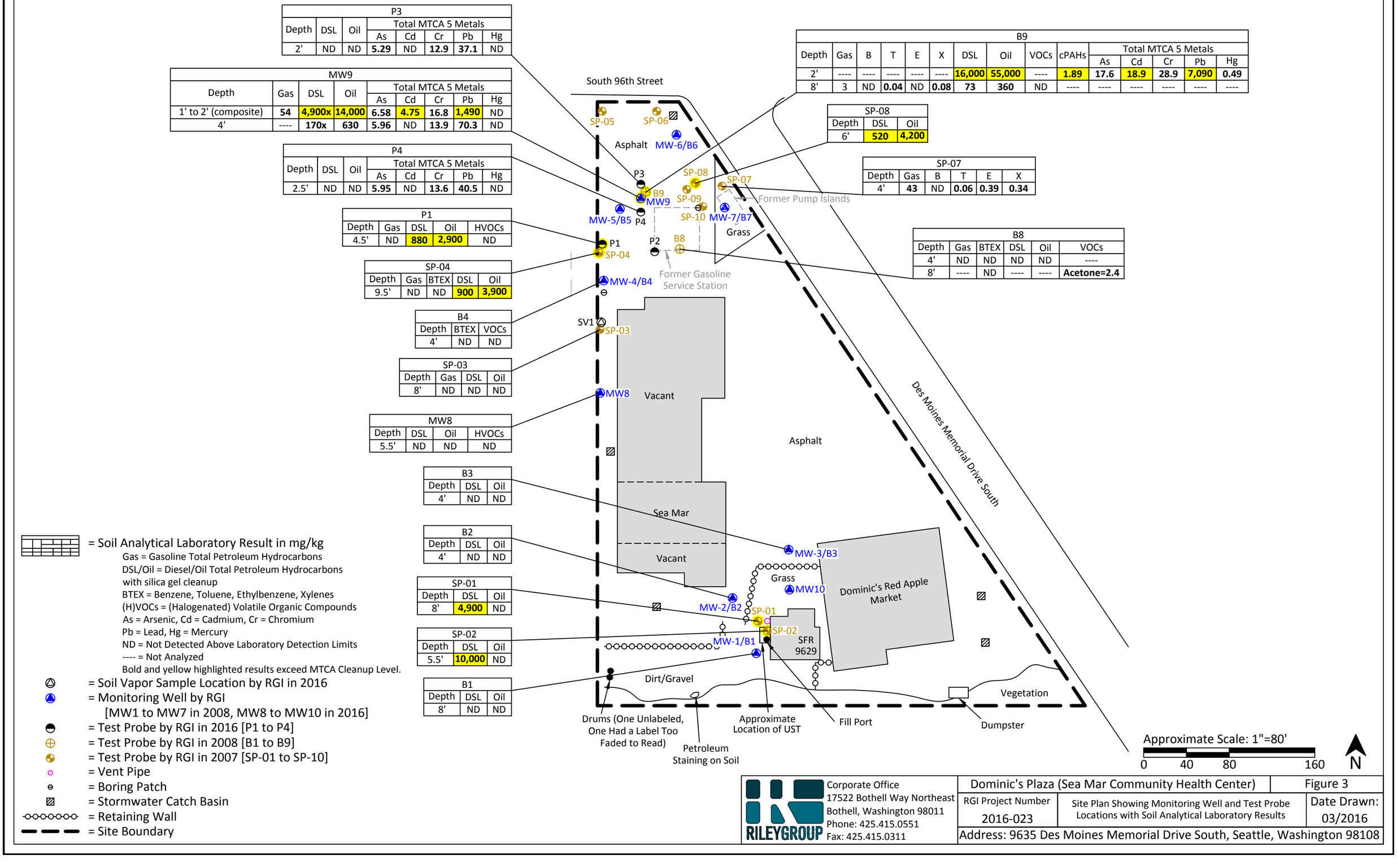
Dominic's Plaza (Sea Mar Community Health Center)		Figure 2
RGI Project Number 2016-023	Site Plan Showing Monitoring Well and Test Probe Locations	Date Drawn: 03/2016
Address: 9635 Des Moines Memorial Drive South, Seattle, Washington 98108		



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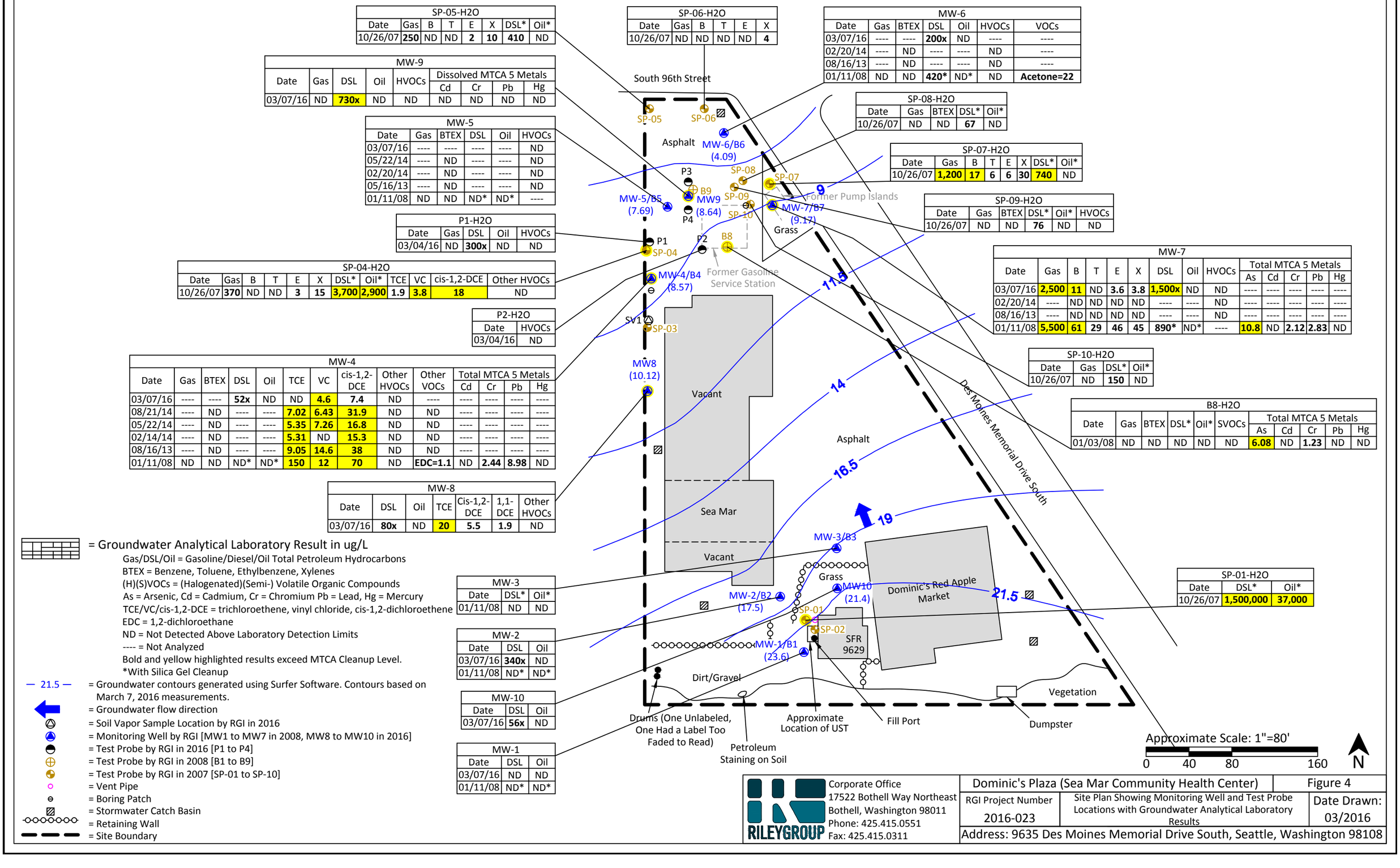
Dominic's Plaza (Sea Mar Community Health Center) | Figure 3

RGI Project Number: 2016-023

Site Plan Showing Monitoring Well and Test Probe Locations with Soil Analytical Laboratory Results

Date Drawn: 03/2016

Address: 9635 Des Moines Memorial Drive South, Seattle, Washington 98108



SP-05-H2O							
Date	Gas	B	T	E	X	DSL*	Oil*
10/26/07	**250**	ND	ND	**2**	**10**	**410**	ND

SP-06-H2O					
Date	Gas	B	T	E	X
10/26/07	ND	ND	ND	ND	**4**

MW-6						
Date	Gas	BTEX	DSL	Oil	HVOCs	VOCs
03/07/16	----	----	**200x**	ND	----	----
02/20/14	----	ND	----	----	ND	----
08/16/13	----	ND	----	----	ND	----
01/11/08	ND	ND	**420***	ND*	ND	**Acetone=22**

MW-9								
Date	Gas	DSL	Oil	HVOCs	Dissolved MTCA 5 Metals			
					Cd	Cr	Pb	Hg
03/07/16	ND	**730x**	ND	ND	ND	ND	ND	ND

SP-08-H2O				
Date	Gas	BTEX	DSL*	Oil*
10/26/07	ND	ND	**67**	ND

MW-5					
Date	Gas	BTEX	DSL	Oil	HVOCs
03/07/16	----	----	----	----	ND
05/22/14	----	ND	----	----	ND
02/20/14	----	ND	----	----	ND
05/16/13	----	ND	----	----	ND
01/11/08	ND	ND	ND*	ND*	----

SP-07-H2O								
Date	Gas	B	T	E	X	DSL*	Oil*	
10/26/07	**1,200**	**17**	**6**	**6**	**30**	**740**	ND	

SP-09-H2O					
Date	Gas	BTEX	DSL*	Oil*	HVOCs
10/26/07	ND	ND	**76**	ND	ND

P1-H2O				
Date	Gas	DSL	Oil	HVOCs
03/04/16	ND	**300x**	ND	ND

MW-7													
Date	Gas	B	T	E	X	DSL	Oil	HVOCs	Total MTCA 5 Metals				
									As	Cd	Cr	Pb	Hg
03/07/16	**2,500**	**11**	ND	**3.6**	**3.8**	**1,500x**	ND	ND	----	----	----	----	----
02/20/14	----	ND	ND	ND	ND	----	----	ND	----	----	----	----	----
08/16/13	----	ND	ND	ND	ND	----	----	ND	----	----	----	----	----
01/11/08	**5,500**	**61**	**29**	**46**	**45**	**890***	ND*	----	**10.8**	ND	**2.12**	**2.83**	ND

SP-04-H2O											
Date	Gas	B	T	E	X	DSL*	Oil*	TCE	VC	cis-1,2-DCE	Other HVOCs
10/26/07	**370**	ND	ND	**3**	**15**	**3,700**	**2,900**	**1.9**	**3.8**	**18**	ND

SP-10-H2O			
Date	Gas	DSL*	Oil*
10/26/07	ND	**150**	ND

P2-H2O	
Date	HVOCs
03/04/16	ND

B8-H2O										
Date	Gas	BTEX	DSL*	Oil*	SVOCs	Total MTCA 5 Metals				
						As	Cd	Cr	Pb	Hg
01/03/08	ND	ND	ND	ND	ND	**6.08**	ND	**1.23**	ND	ND

MW-4													
Date	Gas	BTEX	DSL	Oil	TCE	VC	cis-1,2-DCE	Other HVOCs	Other VOCs	Total MTCA 5 Metals			
										Cd	Cr	Pb	Hg
03/07/16	----	----	**52x**	ND	ND	**4.6**	**7.4**	ND	----	----	----	----	----
08/21/14	----	ND	----	----	**7.02**	**6.43**	**31.9**	ND	ND	----	----	----	----
05/22/14	----	ND	----	----	**5.35**	**7.26**	**16.8**	ND	ND	----	----	----	----
02/14/14	----	ND	----	----	**5.31**	ND	**15.3**	ND	ND	----	----	----	----
08/16/13	----	ND	----	----	**9.05**	**14.6**	**38**	ND	ND	----	----	----	----
01/11/08	ND	ND	ND*	ND*	**150**	**12**	**70**	ND	**EDC=1.1**	ND	**2.44**	**8.98**	ND

MW-8						
Date	DSL	Oil	TCE	Cis-1,2-DCE	1,1-DCE	Other HVOCs
03/07/16	**80x**	ND	**20**	**5.5**	**1.9**	ND

SP-01-H2O		
Date	DSL*	Oil*
10/26/07	**1,500,000**	**37,000**

MW-3		
Date	DSL*	Oil*
01/11/08	ND	ND

MW-2		
Date	DSL	Oil
03/07/16	**340x**	ND
01/11/08	ND*	ND*

MW-10		
Date	DSL	Oil
03/07/16	**56x**	ND

MW-1		
Date	DSL	Oil
03/07/16	ND	ND
01/11/08	ND*	ND*

= Groundwater Analytical Laboratory Result in ug/L

Gas/DSL/Oil = Gasoline/Diesel/Oil Total Petroleum Hydrocarbons
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes
(H)(S)VOCs = (Halogenated)(Semi-) Volatile Organic Compounds
As = Arsenic, Cd = Cadmium, Cr = Chromium Pb = Lead, Hg = Mercury
TCE/VC/cis-1,2-DCE = trichloroethene, vinyl chloride, cis-1,2-dichloroethene
EDC = 1,2-dichloroethane
ND = Not Detected Above Laboratory Detection Limits
---- = Not Analyzed
Bold and yellow highlighted results exceed MTCA Cleanup Level.
*With Silica Gel Cleanup

— 21.5 — = Groundwater contours generated using Surfer Software. Contours based on March 7, 2016 measurements.
= Groundwater flow direction
= Soil Vapor Sample Location by RGI in 2016
= Monitoring Well by RGI [MW1 to MW7 in 2008, MW8 to MW10 in 2016]
= Test Probe by RGI in 2016 [P1 to P4]
= Test Probe by RGI in 2008 [B1 to B9]
= Test Probe by RGI in 2007 [SP-01 to SP-10]
= Vent Pipe
= Boring Patch
= Stormwater Catch Basin
= Retaining Wall
= Site Boundary

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Dominic's Plaza (Sea Mar Community Health Center) | Figure 4

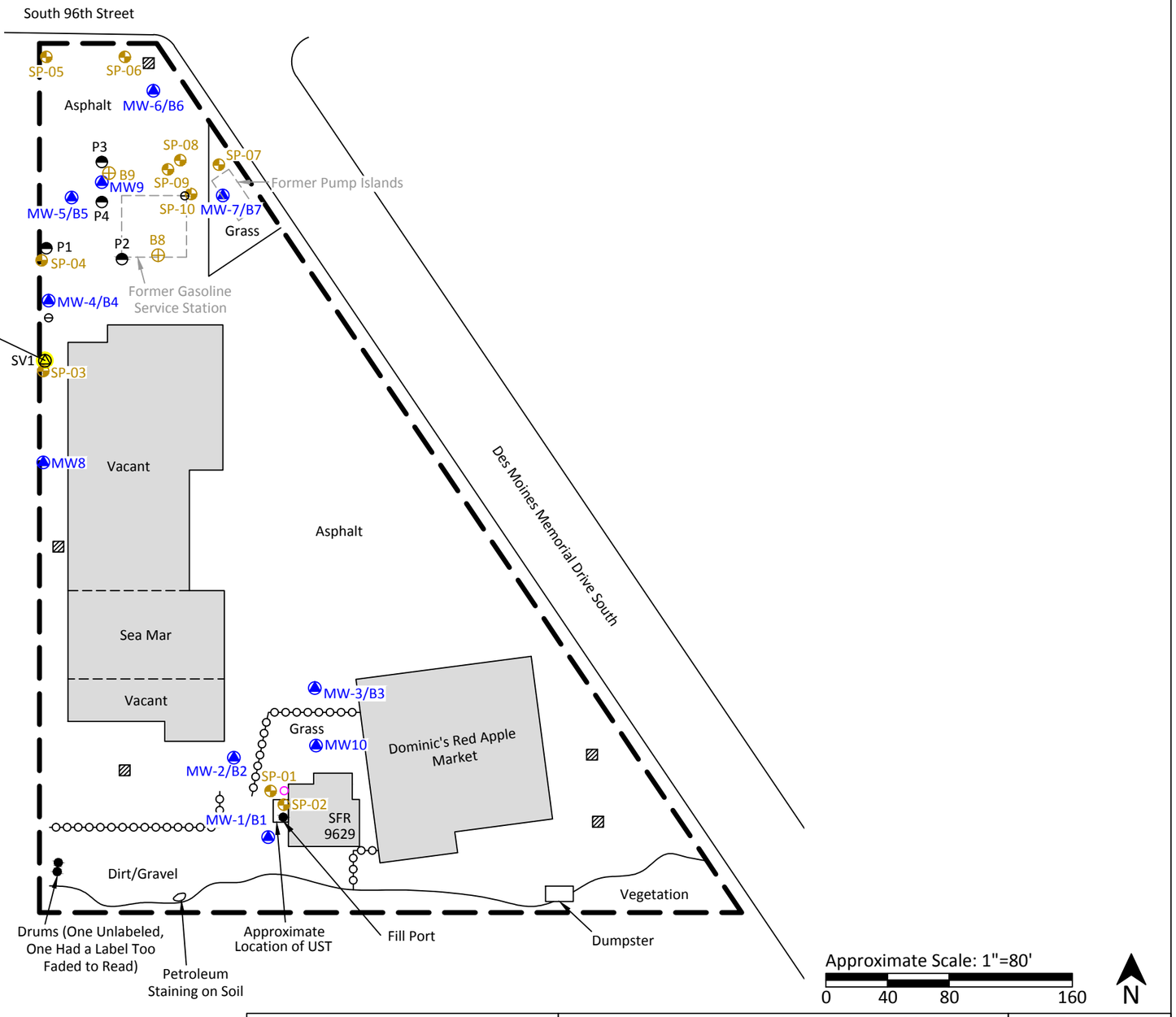
RGI Project Number: 2016-023

Site Plan Showing Monitoring Well and Test Probe Locations with Groundwater Analytical Laboratory Results

Date Drawn: 03/2016

Address: 9635 Des Moines Memorial Drive South, Seattle, Washington 98108

SV1-A							
Date	Depth	VC	1,1-DCE	trans-1,2-DCE	cis-1,2-DCE	TCE	PCE
03/07/16	3'	ND	ND	ND	ND	**140**	**7.9**



= Soil Vapor Analytical Laboratory Result in ug/m³

VC = Vinyl chloride
1,1-DCE = 1,1-dichloroethene
trans-1,2-DCE = trans-1,2-dichloroethene
cis-1,2-DCE = cis-1,2-dichloroethene
TCE = trichloroethene
PCE = tetrachloroethene
ND = Not Detected Above Laboratory Detection Limits
---- = Not Analyzed
Bold and yellow highlighted results exceed MTCA Cleanup Level.

= Soil Vapor Sample Location by RGI in 2016
= Monitoring Well by RGI [MW1 to MW7 in 2008, MW8 to MW10 in 2016]
= Test Probe by RGI in 2016 [P1 to P4]
= Test Probe by RGI in 2008 [B1 to B9]
= Test Probe by RGI in 2007 [SP-01 to SP-10]
= Vent Pipe
= Boring Patch
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Dominic's Plaza (Sea Mar Community Health Center) | Figure 5

RGI Project Number: 2016-023

Site Plan Showing Monitoring Well and Test Probe Locations with Soil Vapor Analytical Laboratory Results

Date Drawn: 03/2016

Address: 9635 Des Moines Memorial Drive South, Seattle, Washington 98108

Table 1, Page 1 of 3. Summary of Soil Sample Analytical Laboratory Results
Dominic's Plaza (Sea Mar Community Health Center)
9635 Des Moines Memorial Drive South, Seattle, Washington 98108
The Riley Group, Inc. Project No. 2016-023

Sample Number	Sample Depth	Sample Date	PID	Gasoline TPH	BTEX				Diesel TPH	Oil TPH	VOCs Not Included in TPH Screening Level Calculations	HVOCs	cPAHs	Total MTCA 5 Metals					TCLP Pb[4]
					B	T	E	X	w/ silica gel					As	Cd	Cr	Pb	Hg	
Supplemental Phase II Investigation (March 2016)																			
P1-4.5	4.5	03/04/16	0.0	ND<2	----	----	----	----	**880**	**2,900**	----	ND	----	----	----	----	----	----	----
P1-9.5	9.5	03/04/16	0.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
P2-4.5	4.5	03/04/16	0.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
P2-8	8	03/04/16	0.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
P3-2	2	03/04/16	0.0	----	----	----	----	----	ND<50	ND<250	----	----	----	**5.29**	**ND<1**	**12.9**	**37.1**	ND<1	----
P3-4.5	4.5	03/04/16	0.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
P3-8	8	03/04/16	0.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
P4-2.5	2.5	03/04/16	0.0	----	----	----	----	----	ND<50	ND<250	----	----	----	**5.95**	**ND<1**	**13.6**	**40.5**	ND<1	----
P4-10	10	03/04/16	0.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
P4-15	15	03/04/16	0.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW8-5.5	5.5	03/04/16	0.3	----	----	----	----	----	ND<50	ND<250	----	ND	----	----	----	----	----	----	----
MW8-9	9	03/04/16	0.3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW9-comp	1 to 2	03/04/16	13.1	**54**	----	----	----	----	**4,900x**	**14,000**	----	----	----	**6.58**	**4.75**	**16.8**	**1,490**	ND<1	**2.53**
MW9-4	4	03/04/16	0.0	----	----	----	----	----	**170x**	**630**	----	----	----	**5.96**	**ND<1**	**13.9**	**70.3**	ND<1	----
MW9-6	6	03/04/16	0.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW9-11.5	11.5	03/04/16	0.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW10-7	7	03/04/16	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW10-12	12	03/04/16	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Supplemental Phase II Investigation (January 2008)																			
B1-8	8	01/02/08	0.0	----	----	----	----	----	ND<50	ND<250	----	----	----	----	----	----	----	----	----
B2-4	4	01/02/08	0.0	----	----	----	----	----	ND<50	ND<250	----	----	----	----	----	----	----	----	----
B3-4	4	01/02/08	0.0	----	----	----	----	----	ND<50	ND<250	----	----	----	----	----	----	----	----	----
B4-4	4	01/02/08	0.0	----	ND<0.03	ND<0.05	ND<0.05	ND<0.1	----	----	ND	----	----	----	----	----	----	----	----
B8-4	4	01/02/08	0.0	ND<2	ND<0.02	ND<0.02	ND<0.02	ND<0.06	ND<50	ND<250	----	----	----	----	----	----	----	----	----
B8-8	8	01/02/08	0.0	----	ND<0.03	ND<0.05	ND<0.05	ND<0.1	----	----	**Acetone = 2.4**	----	----	----	----	----	----	----	----
B9-2	2	01/02/08	0.0	----	----	----	----	----	**16,000**	**55,000**	----	----	**1.89***	**17.6**	**18.9**	**28.9**	**7,090**	**0.49**	----
B9-4	4	01/02/08	0.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
B9-8	8	01/02/08	0.0	**3**	ND<0.02	**0.04**	ND<0.02	**0.08**	**73**	**360**	ND	----	----	----	----	----	----	----	----
B9-12	12	01/02/08	0.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses				**100/30[1]**	**0.03**	**7**	**6**	**9**	**2,000**		**----**	**Analyte Specific**	**TEF = 0.1**	**20**	**2**	**19/2,000[2]**	**250**	**2**	**---**
MTCA Method B Soil Cleanup Levels for Unrestricted Land Uses[3]				**---**	**---**	**---**	**---**	**---**	**---**	**---**	**Acetone = 72,000**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Dangerous Waste Threshold for TCLP Samples				**---**	**---**	**---**	**---**	**---**	**---**	**---**	**Acetone = 72,000**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**5**

Table 1, Page 2 of 3. Summary of Soil Sample Analytical Laboratory Results
Dominic's Plaza (Sea Mar Community Health Center)
9635 Des Moines Memorial Drive South, Seattle, Washington 98108
The Riley Group, Inc. Project No. 2016-023

Sample Number	Sample Depth	Sample Date	PID	Gasoline TPH	BTEX				Diesel TPH	Oil TPH	VOCs Not Included in TPH Screening Level Calculations	HVOCs	cPAHs	Total MTCA 5 Metals					TCLP Pb[4]
					B	T	E	X	w/ silica gel					As	Cd	Cr	Pb	Hg	
Preliminary Phase II Investigation (October 2007)																			
SP-01-06	6	10/26/07	0.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-01-08	8	10/26/07	100	----	----	----	----	----	**4,900**	ND<250	----	----	----	----	----	----	----	----	----
SP-01-10	10	10/26/07	21	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-01-12	12	10/26/07	42	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-02-5.5	5.5	10/26/07	137	----	----	----	----	----	**10,000**	ND<250	----	----	----	----	----	----	----	----	----
SP-02-7.5	7.5	10/26/07	106	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-02-12	12	10/26/07	78	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-02-14	14	10/26/07	5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-03-04	4	10/26/07	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-03-08	8	10/26/07	0	ND<20	----	----	----	----	ND<50	ND<250	----	----	----	----	----	----	----	----	----
SP-03-11	11	10/26/07	0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-04-04	4	10/26/07	0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-04-08	8	10/26/07	0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-04-9.5	9.5	10/26/07	10	ND<2	ND<0.02	ND<0.02	ND<0.02	ND<0.06	**900**	**3,900**	----	----	----	----	----	----	----	----	----
SP-04-12	12	10/26/07	0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-05-04	4	10/26/07	0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-05-08	8	10/26/07	0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-05-12	12	10/26/07	0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-06-04	4	10/26/07	0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-06-08	8	10/26/07	0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-06-12	12	10/26/07	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-07-04	4	10/26/07	16	43	ND<0.02	**0.06**	**0.39**	**0.34**	----	----	----	----	----	----	----	----	----	----	----
SP-07-08	8	10/26/07	20	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-07-12	12	10/26/07	2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-08-04	4	10/26/07	0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-08-06	6	10/26/07	0	----	----	----	----	----	**520**	**4,200**	----	----	----	----	----	----	----	----	----
SP-08-07	7	10/26/07	0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-09-04	4	10/26/07	0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-09-08	8	10/26/07	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-10-04	4	10/26/07	0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-10-06	6	10/26/07	0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-10-12	12	10/26/07	0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses				**100/30[1]**	**0.03**	**7**	**6**	**9**	**2,000**		**Analyte Specific**	**Analyte Specific**	**TEF = 0.1**	**20**	**2**	**19/2,000[2]**	**250**	**2**	----

Table 1, Page 3 of 3. Summary of Soil Sample Analytical Laboratory Results
Dominic's Plaza (Sea Mar Community Health Center)
9635 Des Moines Memorial Drive South, Seattle, Washington 98108
The Riley Group, Inc. Project No. 2016-023

Notes:

All results and detection limits are given in milligrams per kilogram (mg/kg); equivalent to parts per million (ppm).

Sample Depth = Soil sample depth interval in feet below ground surface (bgs).

PID = Photoionization detector.

Gasoline TPH (total petroleum hydrocarbons) determined using Northwest Test Method NWTPH-Gx.

BTEX (benzene, toluene, ethylbenzene, and xylenes) determined using EPA Test Method 8021B or 8260C.

Diesel and Oil TPH (total petroleum hydrocarbons) determined using Northwest Test Method NWTPH-Dx with silica gel cleanup.

VOCs (volatile organic compounds) and HVOCs (halogenated volatile organic compounds) determined using EPA Test Method 8260C.

cPAHs (carcinogenic Polynuclear Aromatic Hydrocarbons) determined using EPA Test Method 8270D SIM.

MTCA 5 Metals (As = arsenic, Cd = cadmium, Cr = chromium, Pb = lead, Hg = mercury) determined using EPA Method 200.8 and 1631E.

TCLP = Toxicity Characterisitics Leaching Procedure.

x = The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

cf = The sample was centrifuged prior to analysis.

ND = Not detected at noted analytical detection limit.

NVE = No valuable established.

---- = Not analyzed or not applicable.

TEF = Toxicity Equivalency Factor per WAC 173-340-708(8).

Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses (WAC 173-340-900, Table 740-1). MTCA Method B Soil Screening Levels from Ecology's Cleanup Level and Risk Calculation (CLARC) database.

[1] The higher cleanup level is allowed if no benzene is detected in the sample and the total of toluene, ethylbenzene and xylenes is less than 1% of the gasoline mixture.

[2] The higher cleanup level is allowed if no hexavalent chromium (CrVI) is present in the sample.

[3] No MTCA Method A Cleanup Level has been established. Therefore, the MTCA Method B Non-Carcinogenic Standard Formula Value is listed for reference.

[4] Results and detection limits are given in milligrams per liter (mg/L); equivalent to parts per million (ppm).

* = Total cPAH concentration is shown in Table. The laboratory reported total cPAH concentration as an estimate.

Bold results indicated concentrations above laboratory detection limits.

Bold and yellow highlighted results indicate concentrations (if any) that exceed MTCA Method A or B Soil Cleanup Levels.

Table 2, Page 1 of 3. Summary of Groundwater Grab Sample Analytical Laboratory Results
Dominic's Plaza (Sea Mar Community Health Center)
9635 Des Moines Memorial Drive South, Seattle, Washington 98108
The Riley Group, Inc. Project No. 2016-023

Sample Number	Sample Date	Top of Casing (TOC) Elevation	Depth to Water (below TOC)	Groundwater Elevation	Gasoline TPH	BTEX				Diesel TPH	Oil TPH	Diesel TPH	Oil TPH	PCE	TCE	cis-1,2-DCE	Trans-1,2-DCE	VC	1,1-DCE	Other HVOCs	Other VOCs	SVOCs	Dissolved Metals				
						B	T	E	X	w/o silica gel		w/ silica gel											As	Cd	Cr	Pb	Hg
Monitoring Wells																											
MW-1																											
MW1-H2O	03/07/16	28.3	4.65	23.6	----	----	----	----	----	ND<50	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW-1	01/11/08	28.3	5.70	22.59	----	----	----	----	----	----	----	ND<50	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW-2																											
MW2-H2O	03/07/16	19.3	1.81	17.5	----	----	----	----	----	**340x**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW-2	01/11/08	19.3	2.10	17.19	----	----	----	----	----	----	----	ND<50	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW-3																											
MW-3	01/11/08	20.3	3.66	16.66	----	----	----	----	----	----	----	ND<50	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW-4																											
MW4-H2O	03/07/16	13.13	4.56	8.57	----	----	----	----	----	**52x**	ND<250	----	----	ND<1	ND<1	**7.4**	ND<1	**4.6**	ND<1	ND	----	----	----	----	----	----	----
82114OS-2:GW	08/21/14	----	----	----	----	ND	ND	ND	ND	----	----	----	----	ND	**7.02**	**31.9**	ND	**6.43**	ND	ND	ND	----	----	----	----	----	----
52214OS-1:GW	05/22/14	----	----	----	----	ND	ND	ND	ND	----	----	----	----	ND	**5.35**	**16.8**	ND	**7.26**	ND	ND	ND	----	----	----	----	----	----
21414OS-1:GW	02/14/14	----	----	----	----	ND	ND	ND	ND	----	----	----	----	ND	**5.31**	**15.3**	ND	ND	ND	ND	ND	----	----	----	----	----	----
OS-1-81613	08/16/13	----	----	----	----	ND	ND	ND	ND	----	----	----	----	ND	**9.05**	**38.0**	ND	**14.6**	ND	ND	ND	----	----	----	----	----	----
MW-4	01/11/08	13.13	6.8	6.32	ND<100	ND<1	ND<1	ND<1	ND<3	----	----	ND<50	ND<250	ND<1	**150**	**70**	ND<1	**12**	ND<1	ND	**EDC=1.1**	ND<0.1	----	ND<1	**2.44**	**8.98**	ND<0.2
MW-5																											
MW5-H2O	03/07/16	10.00	2.31	7.69	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----
52214OS-2:GW	05/22/14	----	----	----	----	ND	ND	ND	ND	----	----	----	----	ND	ND	ND	ND	ND	ND	ND	----	----	----	----	----	----	----
022014OS-2:GW	02/20/14	----	----	----	----	ND	ND	ND	ND	----	----	----	----	ND	ND	ND	ND	ND	ND	ND	----	----	----	----	----	----	----
OS-2-81613	05/16/13	----	----	----	----	ND	ND	ND	ND	----	----	----	----	ND	ND	ND	ND	ND	ND	ND	----	----	----	----	----	----	----
MW-5	01/11/08	10.00	2.02	7.98	ND<100	ND<1	ND<1	ND<1	ND<3	----	----	ND<50	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW-6																											
MW6-H2O	03/07/16	6.78	2.695	4.09	----	----	----	----	----	**200x**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
022014OS-4:GW	02/20/14	----	----	----	----	ND	ND	ND	ND	----	----	----	----	ND	ND	ND	ND	ND	ND	ND	----	----	----	----	----	----	----
OS-4-81613	08/16/13	----	----	----	----	ND	ND	ND	ND	----	----	----	----	ND	ND	ND	ND	ND	ND	ND	----	----	----	----	----	----	----
MW-6	01/11/08	6.78	2.84	3.94	ND<100	ND<1	ND<1	ND<1	ND<3	----	----	**420**	ND<460	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	**Acetone=22**	----	----	----	----	----	----
MW-7																											
MW7-H2O	03/07/16	9.17	0.0	----	**2,500**	**11**	ND<1	**3.6**	**3.8**	**1,500x**	ND<250	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----
022014OS-3:GW	02/20/14	----	----	----	----	ND	ND	ND	ND	----	----	----	----	ND	ND	ND	ND	ND	ND	ND	----	----	----	----	----	----	----
OS-3-81613	08/16/13	----	----	----	----	ND	ND	ND	ND	----	----	----	----	ND	ND	ND	ND	ND	ND	ND	----	----	----	----	----	----	----
MW-7	01/11/08	9.17	0.83	8.34	**5,500**	**61**	**29**	**46**	**45**	----	----	**890**	ND<250	----	----	----	----	----	----	----	----	----	**10.8**	ND<1	**2.12**	**2.83**	ND<0.2
MTCA Method A Cleanup Levels for Ground Water					**800/1,000[1]**	**5**	**1,000**	**700**	**1,000**	**500**	**500**	**500**	**500**	**5**	**5**	**----**	**----**	**0.2**	**----**	**Analyte Specific**	**EDC = 5**	**Analyte Specific**	**5**	**5**	**50**	**15**	**2**
MTCA Method B Cleanup Levels for Ground Water[2]					**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**16**	**160**	**----**	**400**	**----**	**Acetone = 7,200**	**----**	**----**	**----**	**----**	**----**	**----**

Table 2, Page 2 of 3. Summary of Groundwater Grab Sample Analytical Laboratory Results
Dominic's Plaza (Sea Mar Community Health Center)
9635 Des Moines Memorial Drive South, Seattle, Washington 98108
The Riley Group, Inc. Project No. 2016-023

Sample Number	Sample Date	Top of Casing (TOC) Elevation	Depth to Water (below TOC)	Groundwater Elevation	Gasoline TPH	BTEX				Diesel TPH	Oil TPH	Diesel TPH	Oil TPH	PCE	TCE	cis-1,2-DCE	Trans-1,2-DCE	VC	1,1-DCE	Other HVOCs	Other VOCs	SVOCs	Dissolved Metals				
						B	T	E	X	w/o silica gel		w/ silica gel											As	Cd	Cr	Pb	Hg
MW-8																											
MW8-H2O	03/07/16	14.79	4.675	10.12	----	----	----	----	----	**80x**	ND<330	----	----	ND<1	**20**	**5.5**	ND<1	ND<0.2	**1.9**	ND	----	----	----	----	----	----	----
MW-9																											
MW9-H2O	03/07/16	8.64	0.0	----	ND<100	----	----	----	----	**730x**	ND<300	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	ND<1	ND<1	ND<1	ND<1
MW-10																											
MW10-H2O	03/07/16	27.36	5.965	21.4	----	----	----	----	----	**56x**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Groundwater Grab Samples																											
P1-H2O	03/04/16	----	3	----	ND<100	----	----	----	----	**300x**	ND<250	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----
P2-H2O	03/04/16	----	7	----	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----
P3-H2O	03/04/16	----	7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
P4-H2O	03/04/16	----	7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
B8-H2O	01/03/08	----	7.00	----	ND<100	ND<1	ND<1	ND<1	ND<3	----	----	ND<54	ND<270	----	----	----	----	----	----	----	----	ND<0.1	**6.08**	ND<1	**1.23**	ND<1	ND<0.2
SP-01-H2O	10/26/07	----	7.5	----	----	----	----	----	----	----	----	**1,500,000**	**37,000**	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-04-H2O	10/26/07	----	6.0	----	**370**	ND<1	ND<1	**3**	**15**	----	----	**3,700**	**2,900**	ND<1	**1.9**	**18**	ND<1	**3.8**	ND<1	ND	----	----	----	----	----	----	----
SP-05-H2O	10/26/07	----	8.0	----	**250**	ND<1	ND<1	**2**	**10**	----	----	**410**	ND<360	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-06-H2O	10/26/07	----	8.5	----	ND<100	ND<1	ND<1	ND<1	**4**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-07-H2O	10/26/07	----	3.0	----	**1,200**	**17**	**6**	**6**	**30**	----	----	**740**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-08-H2O	10/26/07	----	3.5	----	ND<100	ND<1	ND<1	ND<1	ND<3	----	----	**67**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-09-H2O	10/26/07	----	3.5	----	ND<100	ND<1	ND<1	ND<1	ND<3	----	----	**76**	ND<250	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND<1	----	----	----	----	----	----	----
SP-10-H2O	10/26/07	----	3.5	----	ND<200*	----	----	----	----	----	----	**150**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MTCA Method A Cleanup Levels for Ground Water					**800/1,000[1]**	**5**	**1,000**	**700**	**1,000**	**500**	**500**	**500**	**500**	**5**	**5**	----	----	**0.2**	----	**Analyte Specific**	**Analyte Specific**	**Analyte Specific**	**5**	**5**	**50**	**15**	**2**
MTCA Method B Cleanup Levels for Ground Water[2]					----	----	----	----	----	----	----	----	----	----	----	**16**	**160**	----	**400**	----	----	----	----	----	----	----	----

Notes:
Samples collected by RGI field staff using a peristaltic pump under low-flow conditions.
Unless otherwise noted, all analytical results are given in micrograms per liter (ug/L), equivalent to parts per billion (ppb).
Gasoline TPH (total petroleum hydrocarbons) determined using Northwest Test Method NWTPH-Gx
BTEX (benzene, toluene, ethylbenzene, and xylenes) determined using EPA Test Method 8021B or 8260C.
Diesel and Oil TPH (total petroleum hydrocarbons) determined using Northwest Test Method NWTPH-Dx with and without silica gel cleanup.
PCE (tetrachloroethene), TCE (trichloroethene), cis-1,2-DCE (cis-1,2-dichloroethene), trans-1,2-DCE (trans-1,2-dichloroethene), VC (vinyl chloride), 1,1-DCE (1,1-dichloroethene), EDC (1,2-dichloroethane), and other HVOCs (halogenated volatile organic compounds) determined using EPA Test Method 8260C.
Other VOCs (volatile organic compounds) determined using EPA Test Method 8260C.
SVOCs (semi-volatile organic compounds) determined using EPA Test Method 8260C.
Dissolved Metals (As = arsenic, Cd = cadmium, Cr = chromium, Pb = lead, Hg = mercury) determined using EPA Method 200.8 and 1631E.
ND = Not detected above the noted analytical detection limit.
---- = Not analyzed or not applicable.
x = The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

Table 2, Page 3 of 3. Summary of Groundwater Grab Sample Analytical Laboratory Results
Dominic's Plaza (Sea Mar Community Health Center)
9635 Des Moines Memorial Drive South, Seattle, Washington 98108
The Riley Group, Inc. Project No. 2016-023

Notes continued:

Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method A Cleanup Levels for Ground Water (WAC 173-340-900, Table 720-1). MTCA Method B Standard Formula Values for Ground Water from Ecology's Cleanup Level and Risk Calculation (CLARC) database.

[1] The higher cleanup level is applicable if no benzene is detected in groundwater.

[2] No MTCA Method A Cleanup Level has been established. Therefore, the MTCA Method B Non-Carcinogenic Standard Formula Value is listed for reference.

*TPH results based on Ecology's petroleum hydrocarbon qualitative test method NWTPH-HCID.

Bold results indicated concentrations above laboratory detection limits.

Bold and yellow highlighted results indicate concentrations (if any) that exceed MTCA Method A or B Cleanup Levels for Ground Water.

Table 3. Summary of Sub-Slab Soil Vapor Sample Results
Dominic's Plaza (Sea Mar Community Health Center)
9635 Des Moines Memorial Drive South, Seattle, Washington 98108
The Riley Group, Inc. Project No. 2016-023

Sample Number	Sample Date	Sample Depth (feet below concrete slab)	VC	1,1-DCE	trans-1,2-DCE	cis-1,2-DCE	TCE	PCE
SV1-A	03/07/16	3'	ND<2.6	ND<4.0	ND<8.0	ND<4.0	**140**	**7.9**
SV1-B	03/07/16	3'	---	---	---	---	---	---
MTCA Method B Sub-Slab Soil Gas Screening Level			**9.33**	**3,050**	**NVE**	**NVE**	**12.3**	**321**

Notes:
Unless otherwise noted, all analytical results are given in micrograms per cubic meter (ug/m^3).
PCE (tetrachloroethene), TCE (trichloroethene), cis-1,2-DCE (cis-1,2-dichlorothene), trans-1,2-DCE (trans-1,2-dichloroethene), VC (vinyl chloride), and 1,1 DCE (1,1-dichloroethene) determined using EPA Method TO-15.
ND = Not detected above the laboratory detection limit.
NVE = No value established.
---- = Not applicable.
Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method B Sub-Slab Soil Gas Screening Levels. Most conservative value referenced.
Bold results indicate concentrations above laboratory detection limits.
Bold and highlighted results indicate any detected soil vapor concentrations that would result in an exceedance to the MTCA cleanup levels.

Project Name: **Dominic Plaza (Sea Mar Community Health Center)** Project Number: **2016-023** Client: **HomeStreet Bank**	RILEYGROUP Test Probe No.: **P1** **Sheet 1 of 1**

Date(s) Drilled: **03/04/16**	Logged By: **AJ**	Surface Conditions: **Asphalt**
Drilling Method(s): **Direct Push**	Drill Bit Size/Type: **2.25" Diameter**	Total Depth of Borehole: **10 feet bgs**
Drill Rig Type: **Track-Mounted**	Drilling Contractor: **The Riley Group, Inc.**	Approximate Surface Elevation: **n/a**
Groundwater Level: **3' bgs**	Sampling Method(s): **Continuous**	Hammer Data : **n/a**
Borehole Backfill: **Bentonite**	Location: **9635 Des Moines Memorial Drive South, Seattle, Washington 98108**	

PID Reading, ppm	Sample ID	Sample Type	% Recovery	GW Depth	Depth (feet)	MATERIAL DESCRIPTION	Graphic Log
					0	Asphalt	
						Dark brownish-gray, gravelly, fine SAND with silt, dense, moist, no odor, no sheen	
						Gray, silty, fine SAND with gravel, medium dense, wet, no odor, no sheen	
				▽			
0.0	P1-4.5					Mottled dark brown and gray, silty, fine to coarse SAND with trace organics (increasing with depth), medium dense, wet, slight petroleum odor, no sheen	
					5		
0.0	P1-9.5					Slight sheen	
					10	Test probe terminated at 10 feet bgs	
					15		
					20		

Project Name: **Dominic Plaza (Sea Mar Community Health Center)**	Test Probe No.: **P2**
Project Number: **2016-023**	**Sheet 1 of 1**
Client: **HomeStreet Bank**	

Date(s) Drilled: **03/04/16**	Logged By: **AJ**	Surface Conditions: **Asphalt**
Drilling Method(s): **Direct Push**	Drill Bit Size/Type: **2.25" Diameter**	Total Depth of Borehole: **8.5 feet bgs**
Drill Rig Type: **Track-Mounted**	Drilling Contractor: **The Riley Group, Inc.**	Approximate Surface Elevation: **n/a**
Groundwater Level: **7' bgs**	Sampling Method(s): **Continuous**	Hammer Data : **n/a**
Borehole Backfill: **Bentonite**	Location: **9635 Des Moines Memorial Drive South, Seattle, Washington 98108**	

PID Reading, ppm	Sample ID	Sample Type	% Recovery	GW Depth	Depth (feet)	MATERIAL DESCRIPTION	Graphic Log
					0	Asphalt	
						Dark brown, fine SAND with gravel, loose to medium dense, moist, no odor, no sheen	
						Gray, silty, fine to medium SAND with gravel and organics (increasing with depth), medium dense, moist, no odor, no sheen	
0.0	P2-4.5				5		
				▽		Gray, silty, fine SAND with gravel, dense, moist to wet, no odor, no sheen	
0.0	P2-8						
						Refusal at 8.5 feet bgs	
					10		
					15		
					20		

Project Name: **Dominic Plaza (Sea Mar Community Health Center)**
Project Number: **2016-023**
Client: **HomeStreet Bank**

RILEYGROUP

Test Probe No.: P3

Sheet 1 of 1

Date(s) Drilled: **03/04/16**	Logged By: **AJ**	Surface Conditions: **Asphalt**
Drilling Method(s): **Direct Push**	Drill Bit Size/Type: **2.25" Diameter**	Total Depth of Borehole: **10 feet bgs**
Drill Rig Type: **Track-Mounted**	Drilling Contractor: **The Riley Group, Inc.**	Approximate Surface Elevation: **n/a**
Groundwater Level: **7' bgs**	Sampling Method(s): **Continuous**	Hammer Data : **n/a**
Borehole Backfill: **Bentonite**	Location: **9635 Des Moines Memorial Drive South, Seattle, Washington 98108**	

PID Reading, ppm	Sample ID	Sample Type	% Recovery	GW Depth	Depth (feet)	MATERIAL DESCRIPTION	Graphic Log
					0	Asphalt	
						Dark brown, fine SAND with silt and gravel, loose, moist, no odor, no sheen	
0.0	P3-2						
						Gray SILT with fine sand and a lot of organics, loose, moist to wet, no odor, slight sheen	
0.0	P3-4.5				5		
						Brown to gray, silty fine SAND with lots of organics, loose, wet, no odor, no sheen	
				▽			
0.0	P3-8						
					10	Test probe terminated at 10 feet bgs	
					15		
					20		

The Riley Group, Inc.
17522 Bothell Way NE, Bothell, WA 98011

Project Name: **Dominic Plaza (Sea Mar Community Health Center)**
Project Number: **2016-023**
Client: **HomeStreet Bank**

RILEYGROUP

Test Probe No.: **P4**

Sheet 1 of 1

Date(s) Drilled: **03/04/16**	Logged By: **AJ**	Surface Conditions: **Asphalt**
Drilling Method(s): **Direct Push**	Drill Bit Size/Type: **2.25" Diameter**	Total Depth of Borehole: **15 feet bgs**
Drill Rig Type: **Track-Mounted**	Drilling Contractor: **The Riley Group, Inc.**	Approximate Surface Elevation: **n/a**
Groundwater Level: **7' bgs**	Sampling Method(s): **Continuous**	Hammer Data : **n/a**
Borehole Backfill: **Bentonite**	Location: **9635 Des Moines Memorial Drive South, Seattle, Washington 98108**	

PID Reading, ppm	Sample ID	Sample Type	% Recovery	GW Depth	Depth (feet)	MATERIAL DESCRIPTION	Graphic Log
					0	Asphalt	
						Dark brownish-gray, gravelly SAND with silt, dense, moist, no odor, no sheen	
						Gray, fine SAND with trace gravel and silt, loose, moist, peaty odor, no sheen	
0.0	P4-2.5						
						Gray, silty, fine SAND with organics, medium dense, moist, no odor, no sheen	
					5	No recovery	
				▽			
0.0	P4-10				10	Gray, silty, fine SAND with organics, loose, wet, no odor, nos heen	
						Gray, very fine SAND with trace silt, dense, wet, no odor, no sheen	
0.0	P4-15				15	Test probe terminated at 15 feet bgs	
					20		

Project Name: **Dominic Plaza (Sea Mar Community Health Center)**

Project Number: **2016-023**

Client: **HomeStreet Bank**

RILEYGROUP

Boring Log Key

Sheet 1 of 1

PID Reading, ppm	Sample ID	Sample Type	% Recovery	GW Depth	Depth (feet)	MATERIAL DESCRIPTION	Graphic Log
1	2	3	4	5	6	7	8

COLUMN DESCRIPTIONS

1. PID Reading, ppm: The reading from a photo-ionization detector, in parts per million.
2. Sample ID: Sample identification number.
3. Sample Type: Type of soil sample collected at the depth interval shown.
4. % Recovery: % Recoverysquare foot.
5. GW Depth: Groundwater depth in feet below the ground surface.
6. Depth (feet): Depth in feet below the ground surface.
7. MATERIAL DESCRIPTION: Description of material encountered. May include consistency, moisture, color, and other descriptive text.
8. Graphic Log: Graphic depiction of the subsurface material encountered.

FIELD AND LABORATORY TEST ABBREVIATIONS

CHEM: Chemical tests to assess corrosivity
COMP: Compaction test
CONS: One-dimensional consolidation test
LL: Liquid Limit, percent
PI: Plasticity Index, percent
SA: Sieve analysis (percent passing No. 200 Sieve)
UC: Unconfined compressive strength test, Qu, in ksf
WA: Wash sieve (percent passing No. 200 Sieve)

MATERIAL GRAPHIC SYMBOLS

- Asphaltic Concrete (AC)
- SILT, SILT w/SAND, SANDY SILT (ML)
- Silty SAND (SM)
- Poorly graded SAND (SP)
- Poorly graded SAND with Silt (SP-SM)

TYPICAL SAMPLER GRAPHIC SYMBOLS

- Auger sampler
- Bulk Sample
- 3-inch-OD California w/ brass rings
- CME Sampler
- Continuous
- Grab Sample
- 2.5-inch-OD Modified California w/ brass liners
- Pitcher Sample
- 2-inch-OD unlined split spoon (SPT)
- Shelby Tube (Thin-walled, fixed head)

OTHER GRAPHIC SYMBOLS

- Water level (at time of drilling, ATD)
- Water level (after waiting)
- Minor change in material properties within a stratum
- Inferred/gradational contact between strata
- Queried contact between strata

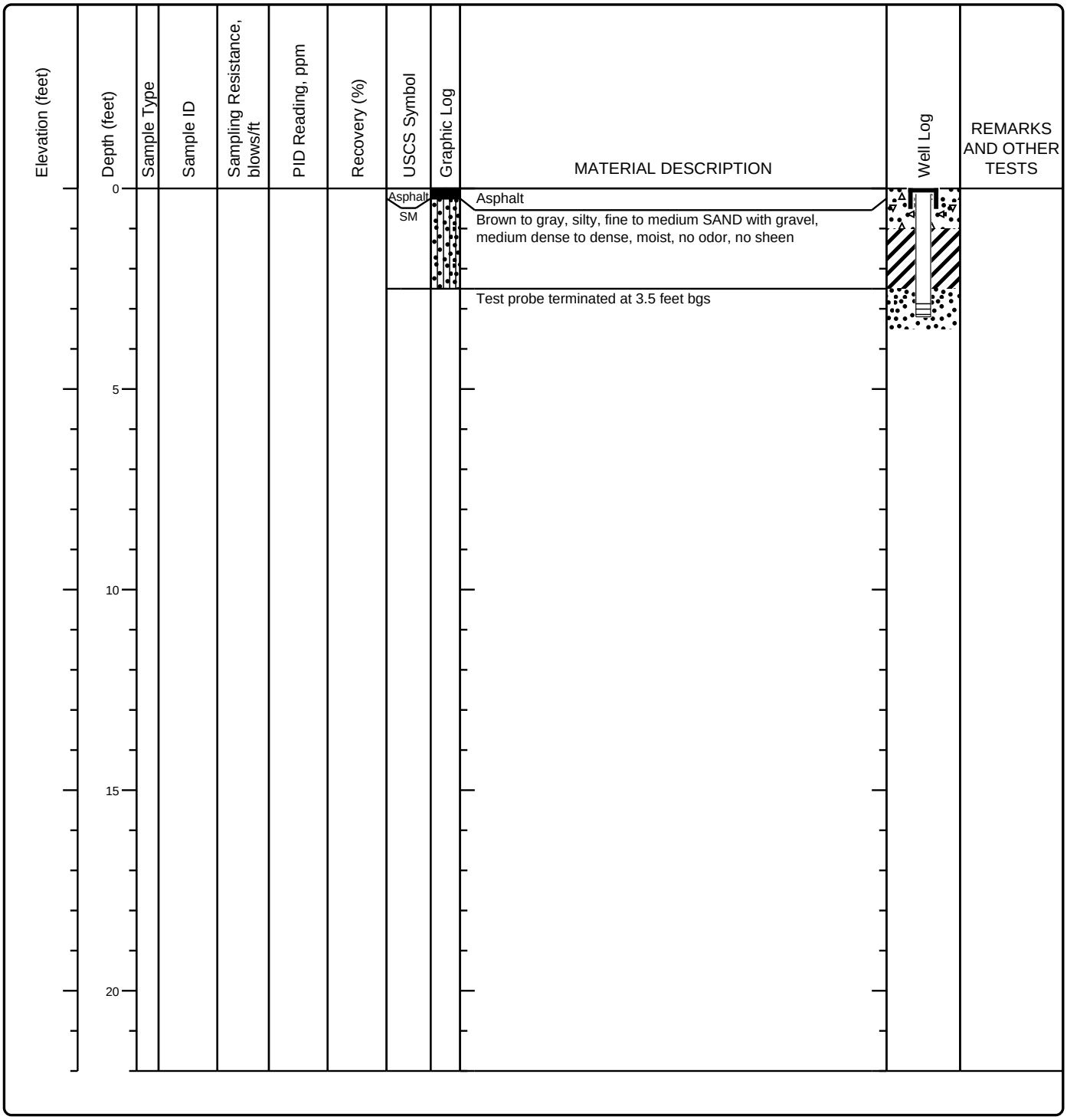
GENERAL NOTES

1: Soil classifications are based on the Unified Soil Classification System. Descriptions and stratum lines are interpretive, and actual lithologic changes may be gradual. Field descriptions may have been modified to reflect results of lab tests.
2: Descriptions on these logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.

The Riley Group, Inc.
17522 Bothell Way NE, Bothell, WA 98011

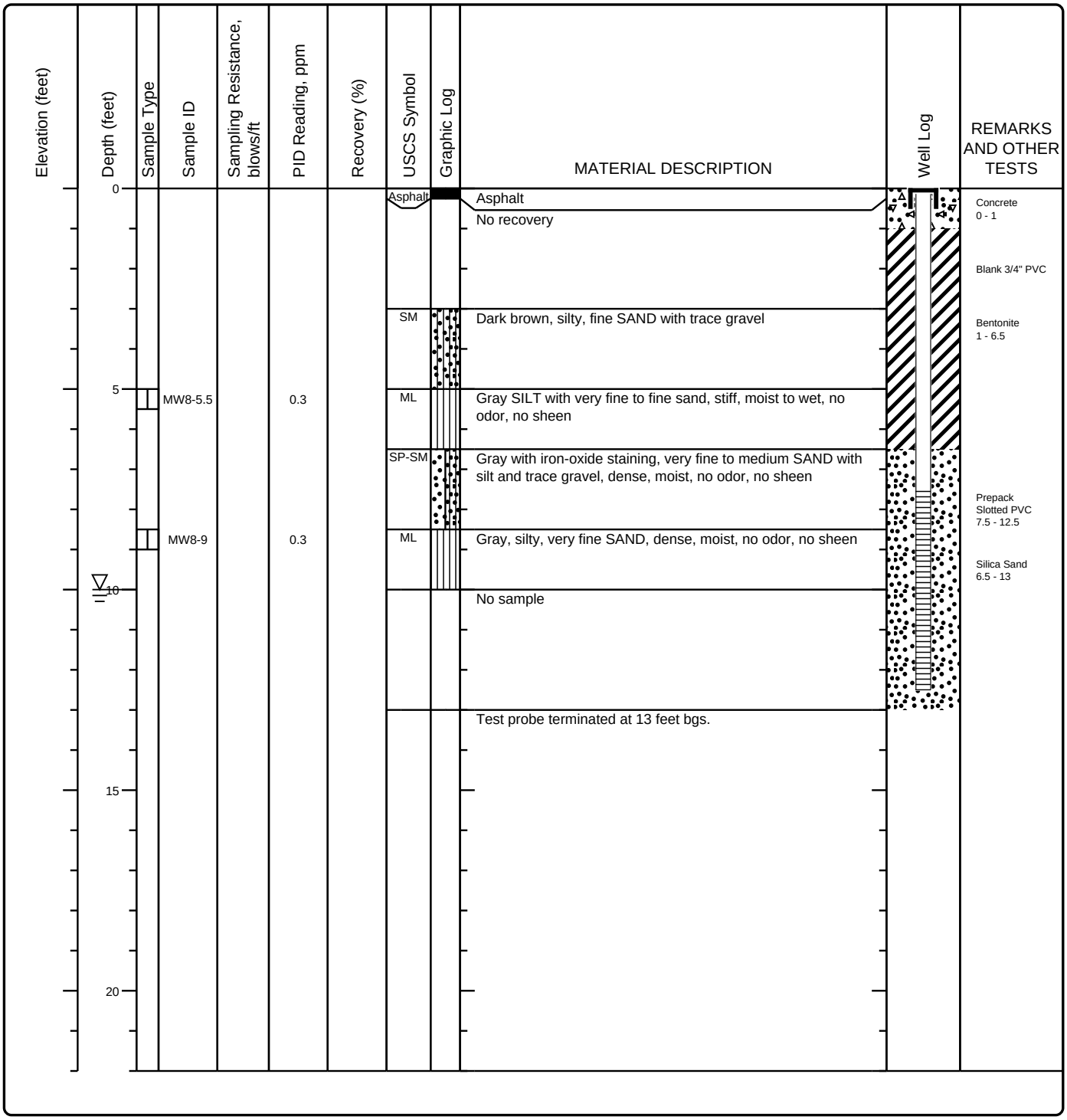
Project Name: **Dominic Plaza (Sea Mar Community Health Center)** Project Number: **2016-023** Client: **HomeStreet Bank**	RILEYGROUP Test Probe/Well No.: **SV1** **Sheet 1 of 1**

Date(s) Drilled: **03/04/16**	Logged By: **AJ**	Surface Conditions: **Asphalt**
Drilling Method(s): **Direct Push**	Drill Bit Size/Type: **2.25" Diameter**	Total Depth of Borehole: **2.5 feet bgs**
Drill Rig Type: **Track-Mounted**	Drilling Contractor: **The Riley Group, Inc.**	Approximate Surface Elevation (feet amsl): **n/a**
Groundwater Level: **Not Encountered**	Sampling Method(s):	Hammer Data : **n/a**
Borehole Backfill: **Soil Vapor Extraction Well**	Location: **9635 Des Moines Memorial Drive South, Seattle, Washington 98108**	



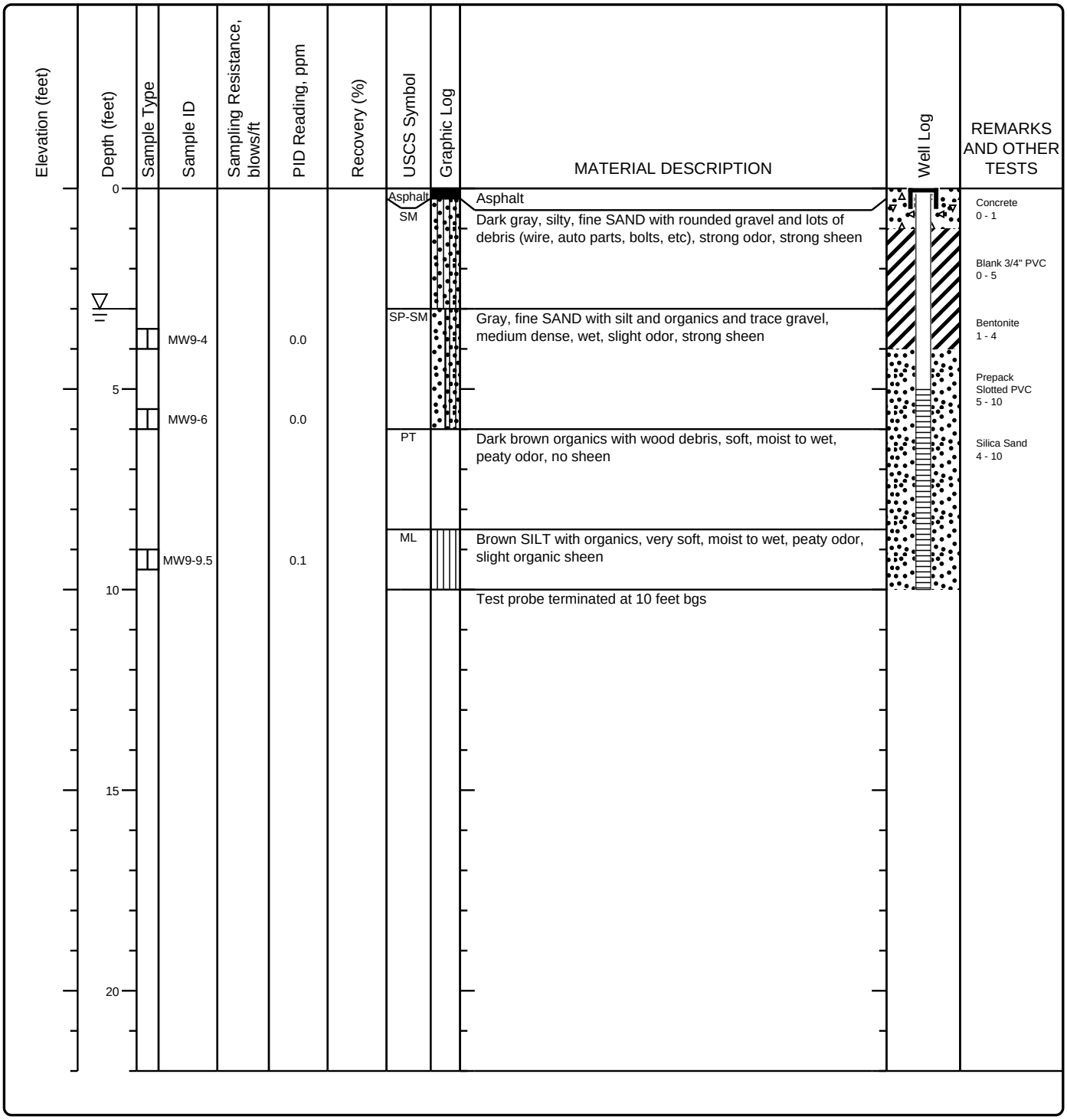
Project Name: **Dominic Plaza (Sea Mar Community Health Center)** Project Number: **2016-023** Client: **HomeStreet Bank**	RILEYGROUP Test Probe/Well No.: **MW8** **Sheet 1 of 1**

Date(s) Drilled: **03/04/16**	Logged By: **AJ**	Surface Conditions: **Asphalt**
Drilling Method(s): **Direct Push**	Drill Bit Size/Type: **2.25" Diameter**	Total Depth of Borehole: **13 feet bgs**
Drill Rig Type: **Track-Mounted**	Drilling Contractor: **The Riley Group, Inc.**	Approximate Surface Elevation (feet amsl): **n/a**
Groundwater Level: **10' bgs**	Sampling Method(s): **Continuous**	Hammer Data : **n/a**
Borehole Backfill: **Monitoring Well**	Location: **9635 Des Moines Memorial Drive South, Seattle, Washington 98108**	



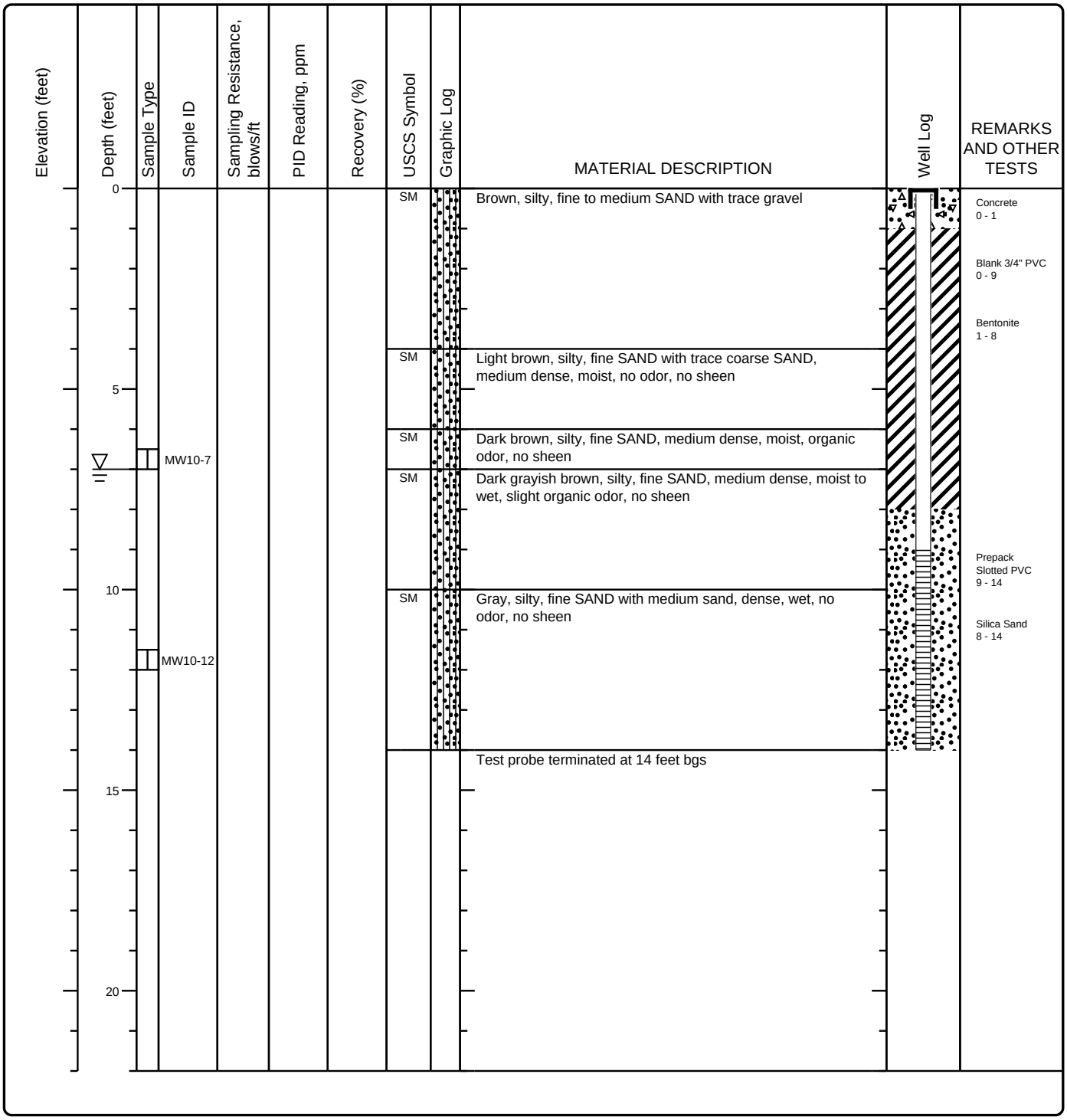
Project Name: **Dominic Plaza (Sea Mar Community Health Center)** Project Number: **2016-023** Client: **HomeStreet Bank**	Test Probe/Well No.: **MW9** **Sheet 1 of 1**

Date(s) Drilled: **03/04/16**	Logged By: **AJ**	Surface Conditions: **Asphalt**
Drilling Method(s): **Direct Push**	Drill Bit Size/Type: **2.25" Diameter**	Total Depth of Borehole: **10 feet bgs**
Drill Rig Type: **Track-Mounted**	Drilling Contractor: **The Riley Group, Inc.**	Approximate Surface Elevation (feet amsl): **n/a**
Groundwater Level: **3' bgs**	Sampling Method(s): **Continuous**	Hammer Data : **n/a**
Borehole Backfill: **Monitoring Well**	Location: **9635 Des Moines Memorial Drive South, Seattle, Washington 98108**	



Project Name: **Dominic Plaza (Sea Mar Community Health Center)** Project Number: **2016-023** Client: **HomeStreet Bank**	Test Probe/Well No.: **MW10** **Sheet 1 of 1**

Date(s) Drilled: **03/04/16**	Logged By: **AJ**	Surface Conditions: **Grass**
Drilling Method(s): **Direct Push**	Drill Bit Size/Type: **2.25" Diameter**	Total Depth of Borehole: **14 feet bgs**
Drill Rig Type: **Track-Mounted**	Drilling Contractor: **The Riley Group, Inc.**	Approximate Surface Elevation (feet amsl): **n/a**
Groundwater Level: **7' bgs**	Sampling Method(s): **Continuous**	Hammer Data : **n/a**
Borehole Backfill: **Monitoring Well**	Location: **9635 Des Moines Memorial Drive South, Seattle, Washington 98108**	



Project Name: **Dominic Plaza (Sea Mar Community Health Center)**
Project Number: **2016-023**
Client: **HomeStreet Bank**

RILEYGROUP

Boring Log Key

Sheet 1 of 1

1 Elevation (feet)	2 Depth (feet)	3 Sample Type	4 Sample ID	5 Sampling Resistance, blows/ft	6 PID Reading, ppm	7 Recovery (%)	8 USCS Symbol	9 Graphic Log	10 MATERIAL DESCRIPTION	11 Well Log	12 REMARKS AND OTHER TESTS

COLUMN DESCRIPTIONS

1. Elevation (feet): Elevation (MSL, feet).
2. Depth (feet): Depth in feet below the ground surface.
3. Sample Type: Type of soil sample collected at the depth interval shown.
4. Sample ID: Sample identification number.
5. Sampling Resistance, blows/ft: Number of blows to advance driven sampler one foot (or distance shown) beyond seating interval using the hammer identified on the boring log.
6. PID Reading, ppm: The reading from a photo-ionization detector, in parts per million.
7. Recovery (%): Core Recovery Percentage is determined based on a ratio of the length of core sample recovered compared to the cored interval length.
8. USCS Symbol: USCS symbol of the subsurface material.
9. Graphic Log: Graphic depiction of the subsurface material encountered.
10. MATERIAL DESCRIPTION: Description of material encountered. May include consistency, moisture, color, and other descriptive text.
11. Well Log: Graphical representation of well installed upon completion of drilling and sampling.
12. REMARKS AND OTHER TESTS: Comments and observations regarding drilling or sampling made by driller or field personnel.

FIELD AND LABORATORY TEST ABBREVIATIONS

CHEM: Chemical tests to assess corrosivity
COMP: Compaction test
CONS: One-dimensional consolidation test
LL: Liquid Limit, percent
PI: Plasticity Index, percent
SA: Sieve analysis (percent passing No. 200 Sieve)
UC: Unconfined compressive strength test, Qu, in ksf
WA: Wash sieve (percent passing No. 200 Sieve)

MATERIAL GRAPHIC SYMBOLS


Asphaltic Concrete (AC)


Bentonite


Portland Cement Concrete


SILT, SILT w/SAND, SANDY SILT (ML)


Silty SAND (SM)


Poorly graded SAND (SP)


Poorly graded SAND with Silt (SP-SM)

TYPICAL SAMPLER GRAPHIC SYMBOLS


Auger sampler


Bulk Sample


3-inch-OD California w/ brass rings


CME Sampler


Continuous


Grab Sample


2.5-inch-OD Modified California w/ brass liners


Pitcher Sample


2-inch-OD unlined split spoon (SPT)


Shelby Tube (Thin-walled, fixed head)

OTHER GRAPHIC SYMBOLS


Water level (at time of drilling, ATD)


Water level (after waiting)


Minor change in material properties within a stratum

Inferred/gradational contact between strata

Queried contact between strata

GENERAL NOTES

1: Soil classifications are based on the Unified Soil Classification System. Descriptions and stratum lines are interpretive, and actual lithologic changes may be gradual. Field descriptions may have been modified to reflect results of lab tests.
2: Descriptions on these logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

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www.friedmanandbruya.com

March 22, 2016

Anna Jordan, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Ms. Jordan:

Included is the amended report from the testing of material submitted on March 8, 2016 from the 2016-023, F&BI 603137 project. Per your request, the arsenic results have been removed.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
TRG0316R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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www.friedmanandbruya.com

March 16, 2016

Anna Jordan, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Ms. Jordan:

Included are the results from the testing of material submitted on March 8, 2016 from the 2016-023, F&BI 603137 project. There are 16 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
TRG0316R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 8, 2016 by Friedman & Bruya, Inc. from the The Riley Group 2016-023, F&BI 603137 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group
603137 -01	MW7-H2O
603137 -02	MW9-H2O
603137 -03	MW6-H2O
603137 -04	MW5-H2O
603137 -05	MW4-H2O
603137 -06	MW8-H2O
603137 -07	MW10-H2O
603137 -08	MW1-H2O
603137 -09	MW2-H2O

All quality control requirements were acceptable.

Date of Report: 03/16/16
Date Received: 03/08/16
Project: 2016-023, F&BI 603137
Date Extracted: 03/11/16
Date Analyzed: 03/11/16

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 51-134)
MW7-H2O 603137-01	2,500	100
MW9-H2O 603137-02	<100	98
Method Blank 06-431 MB	<100	96

Date of Report: 03/16/16
Date Received: 03/08/16
Project: 2016-023, F&BI 603137
Date Extracted: 03/11/16
Date Analyzed: 03/11/16

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 47-140)
MW7-H2O 603137-01	1,500 x	<250	101
MW9-H2O 603137-02 1/1.2	730 x	<300	104
MW6-H2O 603137-03	200 x	<250	100
MW4-H2O 603137-05	52 x	<250	97
MW8-H2O 603137-06 1/1.3	80 x	<330	93
MW10-H2O 603137-07	56 x	<250	83
MW1-H2O 603137-08	<50	<250	81
MW2-H2O 603137-09	340 x	<250	95
Method Blank 06-476 MB2	<50	<250	89

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW9-H2O	Client:	The Riley Group
Date Received:	03/08/16	Project:	2016-023, F&BI 603137
Date Extracted:	03/15/16	Lab ID:	603137-02
Date Analyzed:	03/15/16	Data File:	603137-02.029
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	The Riley Group
Date Received:	NA	Project:	2016-023, F&BI 603137
Date Extracted:	03/15/16	Lab ID:	I6-148 mb
Date Analyzed:	03/15/16	Data File:	I6-148 mb.027
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW7-H2O cf	Client:	The Riley Group
Date Received:	03/08/16	Project:	2016-023, F&BI 603137
Date Extracted:	03/11/16	Lab ID:	603137-01
Date Analyzed:	03/11/16	Data File:	031114.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	11
Toluene	<1
Ethylbenzene	3.6
m,p-Xylene	3.8
o-Xylene	<1
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW9-H2O cf	Client:	The Riley Group
Date Received:	03/08/16	Project:	2016-023, F&BI 603137
Date Extracted:	03/11/16	Lab ID:	603137-02
Date Analyzed:	03/11/16	Data File:	031115.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW5-H2O cf	Client:	The Riley Group
Date Received:	03/08/16	Project:	2016-023, F&BI 603137
Date Extracted:	03/11/16	Lab ID:	603137-04
Date Analyzed:	03/11/16	Data File:	031116.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW4-H2O cf	Client:	The Riley Group
Date Received:	03/08/16	Project:	2016-023, F&BI 603137
Date Extracted:	03/11/16	Lab ID:	603137-05
Date Analyzed:	03/11/16	Data File:	031117.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	101	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	4.6
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	7.4
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW8-H2O cf	Client:	The Riley Group
Date Received:	03/08/16	Project:	2016-023, F&BI 603137
Date Extracted:	03/11/16	Lab ID:	603137-06
Date Analyzed:	03/11/16	Data File:	031118.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	1.9
cis-1,2-Dichloroethene	5.5
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	20
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	The Riley Group
Date Received:	Not Applicable	Project:	2016-023, F&BI 603137
Date Extracted:	03/11/16	Lab ID:	06-0448 mb
Date Analyzed:	03/11/16	Data File:	031109.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 03/16/16
Date Received: 03/08/16
Project: 2016-023, F&BI 603137

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 603200-02 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	102	69-134

Date of Report: 03/16/16
Date Received: 03/08/16
Project: 2016-023, F&BI 603137

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	112	118	58-134	5

Date of Report: 03/16/16
Date Received: 03/08/16
Project: 2016-023, F&BI 603137

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 200.8

Laboratory Code: 603137-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Cadmium	ug/L (ppb)	5	<1	110	127	70-130	14
Chromium	ug/L (ppb)	20	<1	90	99	70-130	10
Lead	ug/L (ppb)	10	<1	90	104	70-130	14
Mercury	ug/L (ppb)	10	<1	92	107	70-130	15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Cadmium	ug/L (ppb)	5	113	85-115
Chromium	ug/L (ppb)	20	105	85-115
Lead	ug/L (ppb)	10	104	85-115
Mercury	ug/L (ppb)	10	102	85-115

Date of Report: 03/16/16
Date Received: 03/08/16
Project: 2016-023, F&BI 603137

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 603137-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	4.6	106	36-166
Chloroethane	ug/L (ppb)	50	<1	113	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	102	60-136
Methylene chloride	ug/L (ppb)	50	<5	110	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	103	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	101	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	7.4	102	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	111	69-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	104	60-146
Benzene	ug/L (ppb)	50	<0.35	99	76-125
Trichloroethene	ug/L (ppb)	50	<1	98	66-135
Toluene	ug/L (ppb)	50	<1	94	76-122
Tetrachloroethene	ug/L (ppb)	50	<1	103	10-226
Ethylbenzene	ug/L (ppb)	50	<1	95	69-135
m,p-Xylene	ug/L (ppb)	100	<2	95	69-135
o-Xylene	ug/L (ppb)	50	<1	96	60-140

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	103	104	50-154	1
Chloroethane	ug/L (ppb)	50	118	121	58-146	3
1,1-Dichloroethene	ug/L (ppb)	50	98	102	67-136	4
Methylene chloride	ug/L (ppb)	50	104	107	39-148	3
trans-1,2-Dichloroethene	ug/L (ppb)	50	99	101	68-128	2
1,1-Dichloroethane	ug/L (ppb)	50	97	99	79-121	2
cis-1,2-Dichloroethene	ug/L (ppb)	50	97	101	80-123	4
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	104	107	73-132	3
1,1,1-Trichloroethane	ug/L (ppb)	50	102	106	83-130	4
Benzene	ug/L (ppb)	50	94	96	69-134	2
Trichloroethene	ug/L (ppb)	50	95	96	80-120	1
Toluene	ug/L (ppb)	50	90	91	72-122	1
Tetrachloroethene	ug/L (ppb)	50	100	102	76-121	2
Ethylbenzene	ug/L (ppb)	50	92	93	77-124	1
m,p-Xylene	ug/L (ppb)	100	93	94	83-125	1
o-Xylene	ug/L (ppb)	50	94	96	81-121	2

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

603137

SAMPLE CHAIN OF COUSTODY

ME 3/8/16 V2/D03/AI2

Page # 1 of 1

Send Report To: Anna Jordan

Company: The Riley Group

Address: 17522 Bothell Way NE

City, State, ZIP: Bothell, WA 98011

Phone #: 425.415.0551 Fax #:

SAMPLERS (signature): Anna Jordan

PROJECT NAME/NO.: 2016-023

PO#:

REMARKS:

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☒ RUSH 1 WK
- Rush charges authorized by

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	HVOCs	MTCA 5 [illegible] METALS	[illegible]	[illegible]			Notes
MW7-H2O	01 A-E		1105	WATER	5	X	X	X				X						
MW9-H2O	02 A-F		1315	↓	6	X	X					X	X					
MW6-H2O	03 A-E		1335		5	X												
MW5-H2O	04		1405		5							X						
MW4-H2O	05		1450		5	X						X						
MW8-H2O	06		1510		5	X						X						
MW10-H2O	07		1600		1	X												
MW1-H2O	08		1615		1	X												
MW2-H2O	09		1620		1	X												

Samples received at 2 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Anna Jordan	Anna Jordan	RGI	3/8/16	1400
Received by: [signature]	VINH	FBI	3/8/16	1400
Relinquished by:				
Received by:				

FORMS\COC\COC.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

March 16, 2016

Anna Jordan, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Ms. Jordan:

Included are the results from the testing of material submitted on March 8, 2016 from the 2016-023, F&BI 603138 project. There are 24 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
TRG0316R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 8, 2016 by Friedman & Bruya, Inc. from the The Riley Group 2016-023, F&BI 603138 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group
603138 -01	MW8-5.5
603138 -02	MW8-9
603138 -03	MW9-comp
603138 -04	MW9-4
603138 -05	MW9-6
603138 -06	MW9-11.5
603138 -07	P3-2
603138 -08	P3-4.5
603138 -09	P3-8
603138 -10	P4-2.5
603138 -11	P4-10
603138 -12	P4-15
603138 -13	P1-4.5
603138 -14	P1-4.5B
603138 -15	P1-9.5
603138 -16	P2-4.5
603138 -17	P2-8
603138 -18	MW10-7
603138 -19	MW10-12
603138 -20	P3-H2O
603138 -21	P4-H2O
603138 -22	P1-H2O
603138 -23	P2-H2O

All quality control requirements were acceptable.

Date of Report: 03/16/16
Date Received: 03/08/16
Project: 2016-023, F&BI 603138
Date Extracted: 03/11/16
Date Analyzed: 03/11/16

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
MW9-comp 603138-03	54	146
P1-4.5 603138-13	<2	104
Method Blank 06-432 MB	<2	110

Date of Report: 03/16/16
Date Received: 03/08/16
Project: 2016-023, F&BI 603138
Date Extracted: 03/11/16
Date Analyzed: 03/11/16

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 51-134)
P1-H2O 603138-22	<100	93
Method Blank 06-431 MB	<100	96

Date of Report: 03/16/16
Date Received: 03/08/16
Project: 2016-023, F&BI 603138
Date Extracted: 03/14/16
Date Analyzed: 03/14/16 and 03/15/16

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 48-168)
MW8-5.5 603138-01	<50	<250	124
MW9-comp 603138-03	4,900 x	14,000	110
MW9-4 603138-04	170 x	630	125
P3-2 603138-07	<50	<250	126
P4-2.5 603138-10	<50	<250	124
P1-4.5 603138-13	880	2,900	128
Method Blank 06-489 MB	<50	<250	124

Date of Report: 03/16/16
Date Received: 03/08/16
Project: 2016-023, F&BI 603138
Date Extracted: 03/11/16
Date Analyzed: 03/11/16

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 47-140)
P1-H2O 603138-22	300 x	<250	89
Method Blank 06-476 MB2	<50	<250	89

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW9-comp	Client:	The Riley Group
Date Received:	03/08/16	Project:	2016-023, F&BI 603138
Date Extracted:	03/11/16	Lab ID:	603138-03 and 603138-03 x10
Date Analyzed:	03/11/16 and 03/14/16	Data File:	603138-03.048 and 603138-03 x10.019
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	6.58
Cadmium	4.75
Chromium	16.8
Lead	1,490
Mercury	<1

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW9-4	Client:	The Riley Group
Date Received:	03/08/16	Project:	2016-023, F&BI 603138
Date Extracted:	03/11/16	Lab ID:	603138-04
Date Analyzed:	03/11/16	Data File:	603138-04.049
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.96
Cadmium	<1
Chromium	13.9
Lead	70.3
Mercury	<1

Analysis For Total Metals By EPA Method 200.8

Client ID:	P3-2	Client:	The Riley Group
Date Received:	03/08/16	Project:	2016-023, F&BI 603138
Date Extracted:	03/11/16	Lab ID:	603138-07
Date Analyzed:	03/11/16	Data File:	603138-07.050
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.29
Cadmium	<1
Chromium	12.9
Lead	37.1
Mercury	<1

Analysis For Total Metals By EPA Method 200.8

Client ID:	P4-2.5	Client:	The Riley Group
Date Received:	03/08/16	Project:	2016-023, F&BI 603138
Date Extracted:	03/11/16	Lab ID:	603138-10
Date Analyzed:	03/11/16	Data File:	603138-10.051
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.95
Cadmium	<1
Chromium	13.6
Lead	40.5
Mercury	<1

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	The Riley Group
Date Received:	NA	Project:	2016-023, F&BI 603138
Date Extracted:	03/11/16	Lab ID:	I6-139 mb2
Date Analyzed:	03/11/16	Data File:	I6-139 mb2.037
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Cadmium	<1
Chromium	<5
Lead	<1
Mercury	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P1-H2O cf	Client:	The Riley Group
Date Received:	03/08/16	Project:	2016-023, F&BI 603138
Date Extracted:	03/11/16	Lab ID:	603138-22
Date Analyzed:	03/11/16	Data File:	031127.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	101	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P2-H2O cf	Client:	The Riley Group
Date Received:	03/08/16	Project:	2016-023, F&BI 603138
Date Extracted:	03/11/16	Lab ID:	603138-23
Date Analyzed:	03/11/16	Data File:	031128.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	The Riley Group
Date Received:	Not Applicable	Project:	2016-023, F&BI 603138
Date Extracted:	03/11/16	Lab ID:	06-0448 mb
Date Analyzed:	03/11/16	Data File:	031109.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW8-5.5	Client:	The Riley Group
Date Received:	03/08/16	Project:	2016-023, F&BI 603138
Date Extracted:	03/11/16	Lab ID:	603138-01
Date Analyzed:	03/11/16	Data File:	031130.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P1-4.5	Client:	The Riley Group
Date Received:	03/08/16	Project:	2016-023, F&BI 603138
Date Extracted:	03/11/16	Lab ID:	603138-13
Date Analyzed:	03/11/16	Data File:	031131.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	99	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	The Riley Group
Date Received:	Not Applicable	Project:	2016-023, F&BI 603138
Date Extracted:	03/11/16	Lab ID:	06-0449 mb
Date Analyzed:	03/11/16	Data File:	031113.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	100	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Date of Report: 03/16/16
Date Received: 03/08/16
Project: 2016-023, F&BI 603138

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 603201-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	100	71-131

Date of Report: 03/16/16
Date Received: 03/08/16
Project: 2016-023, F&BI 603138

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 603200-02 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	102	69-134

Date of Report: 03/16/16
Date Received: 03/08/16
Project: 2016-023, F&BI 603138

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 603138-01 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	117	115	73-135	2

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	102	74-139

Date of Report: 03/16/16
Date Received: 03/08/16
Project: 2016-023, F&BI 603138

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	112	118	58-134	5

Date of Report: 03/16/16
Date Received: 03/08/16
Project: 2016-023, F&BI 603138

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 603128-24 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	2.39	94	96	70-130	2
Cadmium	mg/kg (ppm)	10	<1	102	100	70-130	2
Chromium	mg/kg (ppm)	50	15.3	86	84	70-130	2
Lead	mg/kg (ppm)	50	2.17	88	87	70-130	1
Mercury	mg/kg (ppm	10	<1	82	83	70-130	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	102	85-115
Cadmium	mg/kg (ppm)	10	105	85-115
Chromium	mg/kg (ppm)	50	101	85-115
Lead	mg/kg (ppm)	50	95	85-115
Mercury	mg/kg (ppm)	10	92	85-115

Date of Report: 03/16/16
Date Received: 03/08/16
Project: 2016-023, F&BI 603138

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 603137-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	4.6	106	36-166
Chloroethane	ug/L (ppb)	50	<1	113	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	102	60-136
Methylene chloride	ug/L (ppb)	50	<5	110	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	103	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	101	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	7.4	102	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	111	69-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	104	60-146
Trichloroethene	ug/L (ppb)	50	<1	98	66-135
Tetrachloroethene	ug/L (ppb)	50	<1	103	10-226

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	103	104	50-154	1
Chloroethane	ug/L (ppb)	50	118	121	58-146	3
1,1-Dichloroethene	ug/L (ppb)	50	98	102	67-136	4
Methylene chloride	ug/L (ppb)	50	104	107	39-148	3
trans-1,2-Dichloroethene	ug/L (ppb)	50	99	101	68-128	2
1,1-Dichloroethane	ug/L (ppb)	50	97	99	79-121	2
cis-1,2-Dichloroethene	ug/L (ppb)	50	97	101	80-123	4
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	104	107	73-132	3
1,1,1-Trichloroethane	ug/L (ppb)	50	102	106	83-130	4
Trichloroethene	ug/L (ppb)	50	95	96	80-120	1
Tetrachloroethene	ug/L (ppb)	50	100	102	76-121	2

Date of Report: 03/16/16
Date Received: 03/08/16
Project: 2016-023, F&BI 603138

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 603198-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	29	32	10-138	10
Chloroethane	mg/kg (ppm)	2.5	<0.5	41	46	10-176	11
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	40	45	10-160	12
Methylene chloride	mg/kg (ppm)	2.5	<0.5	60	70	10-156	15
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	51	58	14-137	13
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	55	63	19-140	14
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	59	66	25-135	11
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	69	78	12-160	12
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	57	64	10-156	12
Trichloroethene	mg/kg (ppm)	2.5	<0.02	55	62	21-139	12
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	59	65	20-133	10

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	85	22-139
Chloroethane	mg/kg (ppm)	2.5	93	10-163
1,1-Dichloroethene	mg/kg (ppm)	2.5	95	47-128
Methylene chloride	mg/kg (ppm)	2.5	110	42-132
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	103	67-127
1,1-Dichloroethane	mg/kg (ppm)	2.5	101	68-115
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	104	72-113
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	114	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	107	62-131
Trichloroethene	mg/kg (ppm)	2.5	99	64-117
Tetrachloroethene	mg/kg (ppm)	2.5	108	72-114

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

603138

SAMPLE CHAIN OF CUSTODY ME 3/8/16 V2/VS2/D03

Page # 1 of 3

Send Report To Anna Jordan
Company The Riley Group
Address 17522 Bothell Way NE
City, State, ZIP Bothell WA 98011
Phone # 425.415.0551 Fax # 425.415.0311

SAMPLERS (signature) Anna Jordan
PROJECT NAME/NO. 2016-023
PO#
REMARKS *silica gelon soil samples

TURNAROUND TIME
☐ Standard (2 Weeks)
☒ RUSH 1 WK
Rush charges authorized by

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS	MTCA 5 METALS	HVOCs					Notes
MW8-5.5	01A-E	3/4/16	903	SOIL	5	X							X					
MW8-9	02A-E		907		5													
MW9-comp	03A-F		1040		3+40ml	X	X					X						
MW9-4	04A-E		1104		5	X						X						
MW9-6	05A-E		1115		5													
MW9-11.5	06A-E		1119		5													
P3-2	07		1220		5	X						X						
P3-4.5	08		1227		5													
P3-8	09		1230		5													
P4-2.5	10		1300		5	X						X						received at 2 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Anna Jordan	Anna Jordan	RGI	3/8/16	2:00 PM
Received by:	VINH	FBI	3/8/16	2:00 PM
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

603138

SAMPLE CHAIN OF CUSTODY ME 3/8/16 V2/VS2/D03

Page # 2 of 3

Send Report To Anna Jordan
Company The Riley Group
Address 7522 Bothell Way NE
City, State, ZIP Bothell, WA 98011
Phone #425.415.0551 Fax #

SAMPLERS (signature) Anna Jordan
PROJECT NAME/NO. 2016-023
PO#

REMARKS
*silicagel on soil samples

TURNAROUND TIME
☐ Standard (2 Weeks)
☒ RUSH 1 wk
Rush charges authorized by

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS	HVOCs						Notes
P4-10	11 A-E	3/4/16	1315	SOIL	5													
P4-15	12		1320		5													
P1-4.5	13		1350		5	X	X					X						
P1-4.5B	14		1355		1													
P1-9.5	15 A-E		1410		5													
P2-4.5	16 A-E		1455		5													
P2-8	17 A-E		1505		5													
MW10-7	18		1600		1													
MW10-12	19		1615		1													
P3-H2O	20 A-E		1400	WATER	5													Temp as received at 2 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Anna Jordan	Anna Jordan	RGI	3/8/16	1400
Received by:	VINH	FBI	3/8/16	1450
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
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G03138

SAMPLE CHAIN OF CUSTODY

ME 3/8/16 V2/VS2/D03

Page 1 of 3

Send Report To Anna Jordan

Company The Riley Group

Address

City, State, ZIP

Phone # Fax #

SAMPLERS (signature) Anna Jordan

PROJECT NAME/NO. 2016-023

PO#

REMARKS

* silica gel on soil samples

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☒ RUSH 1 WK

Rush charges authorized by

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS	HVOCs						Notes
P4-H2O	21 A-B	3/4/16	1400	WATER	5													
P1-H2O	22 A-E	"	1445	"	5	X	X					X						
P2-H2O	23 A-E	"	1600	"	5							X						
																		Samples received at 2 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Anna Jordan	Anna Jordan	RGI	3/8/16	14 00
Received by:		VINT	FBI	3/8/16	14 00
Relinquished by:					
Received by:					

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

March 22, 2016

Anna Jordan, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Ms. Jordan:

Included are the additional results from the testing of material submitted on March 8, 2016 from the 2016-023, F&BI 603138 project. There are 5 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
TRG0322R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 8, 2016 by Friedman & Bruya, Inc. from the The Riley Group 2016-023, F&BI 603138 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group
603138 -01	MW8-5.5
603138 -02	MW8-9
603138 -03	MW9-comp
603138 -04	MW9-4
603138 -05	MW9-6
603138 -06	MW9-11.5
603138 -07	P3-2
603138 -08	P3-4.5
603138 -09	P3-8
603138 -10	P4-2.5
603138 -11	P4-10
603138 -12	P4-15
603138 -13	P1-4.5
603138 -14	P1-4.5B
603138 -15	P1-9.5
603138 -16	P2-4.5
603138 -17	P2-8
603138 -18	MW10-7
603138 -19	MW10-12
603138 -20	P3-H2O
603138 -21	P4-H2O
603138 -22	P1-H2O
603138 -23	P2-H2O

All quality control requirements were acceptable.

Analysis for TCLP Metals By EPA Method 200.8 and 40 CFR PART 261

Client ID:	MW9-comp	Client:	The Riley Group
Date Received:	03/08/16	Project:	2016-023, F&BI 603138
Date Extracted:	03/20/16	Lab ID:	603138-03
Date Analyzed:	03/21/16	Data File:	603138-03.032
Matrix:	Soil/Solid	Instrument:	ICPMS1
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Lead	2.53	5.0

Analysis for TCLP Metals By EPA Method 200.8 and 40 CFR PART 261

Client ID:	Method Blank	Client:	The Riley Group
Date Received:	Not Applicable	Project:	2016-023, F&BI 603138
Date Extracted:	03/20/16	Lab ID:	I6-153 mb
Date Analyzed:	03/21/16	Data File:	I6-153 mb.030
Matrix:	Soil/Solid	Instrument:	ICPMS1
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Lead	<1	5.0

Date of Report: 03/22/16
Date Received: 03/08/16
Project: 2016-023, F&BI 603138

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL/SOLID SAMPLES FOR TCLP METALS USING EPA METHOD 200.8 AND 40 CFR PART 261

Laboratory Code: 603138-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	mg/L (ppm)	1.0	2.53	76 b	105 b	70-130	32 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/L (ppm)	1.0	98	85-115

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

603138

SAMPLE CHAIN OF CUSTODY ME 3/8/16 V2/VS2/D03

Send Report To Anna Jordan
Company The Riley Group
Address 17522 Bothell Way NE
City, State, ZIP Bothell WA 98011
Phone # 425.415.0551 Fax # 425.415.0311

SAMPLERS (signature) Anna Jordan
PROJECT NAME/NO. 2016-023
PO#
REMARKS *silica gelon soil samples

Page # 1 of 3

TURNAROUND TIME
☐ Standard (2 Weeks)
☒ RUSH 1 WK
Rush charges authorized by

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	MTCA 5 METALS	HVOCs	TCLP Lead				Notes
MW8-5.5	01 A-E	3/4/16	903	SOIL	5	X							X					*per AS
MW8-9	02 A-E		907		5													3/17/16
MW9-comp	03 A-F		1040		3	X	X					X		*				MS
MW9-4	04 A-E		1104		5	X						X						
MW9-6	05 A-E		1115		5													
MW9-[redacted]11.5	06 A-E		1119		5													
P3-2	07		1220		5	X						X						
P3-4.5	08		1227		5													
P3-8	09		1230		5													
P4-2.5	10		1300		5	X						X						received at 2 °C

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Anna Jordan	Anna Jordan	RGI	3/8/16	2:00 PM
Received by: Vinh	VINH	FBI	3/8/16	2:00 PM
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

603138

SAMPLE CHAIN OF CUSTODY ME 3/8/16 V2/VS2/D03

Send Report To Anna Jordan
Company The Riley Group
Address 17522 Bothell Way NE
City, State, ZIP Bothell, WA 98011
Phone #425.415.0551 Fax #

SAMPLERS (signature) Anna Jordan
PROJECT NAME/NO. 2016-023
PO#
REMARKS *silica gel on soil samples

Page # 2 of 3

TURNAROUND TIME
☐ Standard (2 Weeks)
☒ RUSH 1 WK
Rush charges authorized by

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	HVOCs						Notes
P4-10	11	3/4/16	1315	SOIL	5													
P4-15	12		1320		5													
P1-4.5	13		1350		5	X	X					X						
P1-4.5B	14		1355		1													
P1-9.5	15 AE		1410		5													
P2-4.5	16 AE		1455		5													
P2-8	17 AE		1505		5													
MW10-7	18		1600		1													
MW10-B12	19		1615		1													
P3-H2O	20 AE		1400	WATER	5													Temp as received at 2 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Anna Jordan	Anna Jordan	RGI	3/8/16	1400
Received by:	VINH	FBI	3/8/16	1450
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

G03138

SAMPLE CHAIN OF CUSTODY ME 3/8/16 V2/VS2/D03

Page 3 of 3

Send Report To Anna Jordan
Company The Riley Group
Address
City, State, ZIP
Phone # Fax #

SAMPLERS (signature) Anna Jordan
PROJECT NAME/NO. 2016-023
PO#
REMARKS * silica gel on soil samples

TURNAROUND TIME
☐ Standard (2 Weeks)
☒ RUSH 1 WK
Rush charges authorized by

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	HVOCs						Notes
P4-H2O	21 A-B	3/4/16	1400	WATER	5													
P1-H2O	22 A-C	↓	1445	↓	5	X	X					X						
P2-H2O	23 A-C	↓	1600	↓	5							X						

Samples received at 2 °C

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Anna Jordan	Anna Jordan	RGI	3/8/16	14 00
Received by:		VINH	FEI	3/8/16	14 00
Relinquished by:					
Received by:					

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

Mobile Geochemistry Inc.

18 March 2016

Ms. Anna Jordan
The Riley Group, Inc. (RGI)
17522 Bothell Way NE, Suite A
Bothell, WA 98011

H&P Project: RG031116-11
Client Project: 2016-023 / Seattle, WA

Dear Ms. Anna Jordan:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 11-Mar-16 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody
- Sampling Logs (if applicable)

Unless otherwise noted, I certify that all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures. This report shall not be reproduced, except in full, without the written approval of H&P Mobile Geochemistry, Inc.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,

Janis Villarreal

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry, Inc. is certified under the California ELAP, the National Environmental Laboratory Accreditation Conference (NELAC) and the Department of Defense Accreditation Programs.

H&P Mobile
Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

The Riley Group, Inc. (RGI)	Project: RG031116-11	
17522 Bothell Way NE, Suite A	Project Number: 2016-023 / Seattle, WA	Reported:
Bothell, WA 98011	Project Manager: Ms. Anna Jordan	18-Mar-16 07:54

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SV1-A	E603065-01	Vapor	07-Mar-16	11-Mar-16

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17522 Bothell Way NE, Suite A	Project Number: 2016-023 / Seattle, WA	Reported:
Bothell, WA 98011	Project Manager: Ms. Anna Jordan	18-Mar-16 07:54

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV1-A (E603065-01) Vapor Sampled: 07-Mar-16 Received: 11-Mar-16									
Vinyl chloride	ND	2.6	ug/m3	1	EC61716	17-Mar-16	17-Mar-16	EPA TO-15	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Trichloroethene	**140**	5.5	"	"	"	"	"	"	
Tetrachloroethene	**7.9**	6.9	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*110 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*94.1 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*80.3 %*		*77-127*	"	"	"	"	

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17522 Bothell Way NE, Suite A	Project Number: 2016-023 / Seattle, WA	Reported:
Bothell, WA 98011	Project Manager: Ms. Anna Jordan	18-Mar-16 07:54

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC61716 - TO-15										
Blank (EC61716-BLK1)				Prepared & Analyzed: 17-Mar-16						
Vinyl chloride	ND	2.6	ug/m3							
1,1-Dichloroethene	ND	4.0	"							
trans-1,2-Dichloroethene	ND	8.0	"							
cis-1,2-Dichloroethene	ND	4.0	"							
Trichloroethene	ND	5.5	"							
Tetrachloroethene	ND	6.9	"							
Surrogate: 1,2-Dichloroethane-d4	*234*		*"*	*214*		*109*	*76-134*			
Surrogate: Toluene-d8	*201*		*"*	*207*		*97.0*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*286*		*"*	*364*		*78.4*	*77-127*			
LCS (EC61716-BS1)				Prepared & Analyzed: 17-Mar-16						
Vinyl chloride	57	2.6	ug/m3	52.0		110	64-127			
1,1-Dichloroethene	73	4.0	"	80.8		90.1	61-133			
trans-1,2-Dichloroethene	66	8.0	"	80.8		82.1	67-124			
cis-1,2-Dichloroethene	69	4.0	"	80.0		86.1	70-121			
Trichloroethene	96	5.5	"	110		87.6	71-123			
Tetrachloroethene	120	6.9	"	138		88.2	66-124			
Surrogate: 1,2-Dichloroethane-d4	*236*		*"*	*214*		*110*	*76-134*			
Surrogate: Toluene-d8	*202*		*"*	*207*		*97.8*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*338*		*"*	*364*		*92.7*	*77-127*			
LCS Dup (EC61716-BSD1)				Prepared & Analyzed: 17-Mar-16						
Vinyl chloride	56	2.6	ug/m3	52.0		108	64-127	2.02	25	
1,1-Dichloroethene	74	4.0	"	80.8		91.7	61-133	1.81	25	
trans-1,2-Dichloroethene	65	8.0	"	80.8		80.7	67-124	1.65	25	
cis-1,2-Dichloroethene	71	4.0	"	80.0		88.6	70-121	2.76	25	
Trichloroethene	96	5.5	"	110		87.3	71-123	0.284	25	
Tetrachloroethene	120	6.9	"	138		87.5	66-124	0.852	25	
Surrogate: 1,2-Dichloroethane-d4	*234*		*"*	*214*		*109*	*76-134*			
Surrogate: Toluene-d8	*202*		*"*	*207*		*97.7*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*332*		*"*	*364*		*91.0*	*77-127*			

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The Riley Group, Inc. (RGI)	Project: RG031116-11	
17522 Bothell Way NE, Suite A	Project Number: 2016-023 / Seattle, WA	Reported:
Bothell, WA 98011	Project Manager: Ms. Anna Jordan	18-Mar-16 07:54

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Batch EC61716 - TO-15

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The Riley Group, Inc. (RGI)	Project: RG031116-11	
17522 Bothell Way NE, Suite A	Project Number: 2016-023 / Seattle, WA	Reported:
Bothell, WA 98011	Project Manager: Ms. Anna Jordan	18-Mar-16 07:54

Notes and Definitions

LCC	Leak Check Compound
ND	Analyte NOT DETECTED at or above the reporting limit
MDL	Method Detection Limit
%REC	Percent Recovery
RPD	Relative Percent Difference

Appendix

H&P Mobile Geochemistry, Inc. is approved as an Environmental Testing Laboratory and Mobile Laboratory in accordance with the DoD-ELAP and the ISO 17025 programs, certification number L11-175.

H&P is approved by the State of Arizona as an Environmental Testing Laboratory and Mobile Laboratory, certification numbers AZM758 and AZ0779.

H&P is approved by the State of California as an Environmental Laboratory and Mobile Laboratory in conformance with the Environmental Laboratory Accreditation Program (ELAP) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste, certification numbers 2740, 2741, 2743, 2744, 2745, 2754 & 2930.

H&P is approved by the State of Florida Department of Health under the National Environmental Laboratory Accreditation Conference (NELAC) certification number E871100.

The complete list of stationary and mobile laboratory certifications along with the fields of testing (FOTs) and analyte lists are available at www.handpmg.com/about/certifications.

Mobile Geochemistry, Inc.

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VAPOR / AIR Chain of Custody

DATE: 3/7/16
Page 1 of 1

Lab Client and Project Information

Lab Client/Consultant: The Riley Group	Project Name / #: 2016-023
Lab Client Project Manager: Anna Jordan	Project Location: Seattle WA
Lab Client Address: 17522 Bothell Way NE	Report E-Mail(s): AJordan@riley-group.com
Lab Client City, State, Zip: Bothell WA 98011	
Phone Number: 425.415.0551	

Sample Receipt (Lab Use Only)

Date Rec'd: 3/11/16	Control #: 160215.01
H&P Project #	RG031116-11
Lab Work Order #	E603065
Sample Intact: ☒ Yes ☐ No ☐ See Notes Below	
Receipt Gauge ID: 11167	Temp: RT
Outside Lab:	
Receipt Notes/Tracking #: 1Z93TT619049512746	
Lab PM Initials: VR	

Reporting Requirements

☒ Standard Report ☐ Level III ☐ Level IV
☐ Excel EDD ☐ Other EDD:_____
☐ CA Geotracker Global ID:_____

Turnaround Time

☐ 5-7 day Stnd ☐ 24-Hr Rush
☐ 3-day Rush ☐ Mobile Lab
☒ 48-Hr Rush ☐ Other:____

Sampler Information

Sampler(s): Anna Jordan
Signature: Anna Jordan
Date: 3/7/16

Additional Instructions to Laboratory:

☒ Check if Project Analyte List is Attached
* *Preferred VOC units (please choose one):*
☐ µg/L ☒ µg/m³ ☐ ppbv ☐ ppmv

SAMPLE NAME	FIELD POINT NAME (if applicable)	DATE mm/dd/yy	TIME 24hr clock	SAMPLE TYPE Indoor Air (IA), Ambient Air (AA), Subslab (SS), Soil Vapor (SV)	CONTAINER SIZE & TYPE 400mL/1L/6L Summa or Tedlar or Tube	CONTAINER ID (###)	Lab use only: Receipt Vac	VOCs Standard Full List ☐ 8260SV ☐ TO-15	VOCs Short List / Project List ☒ 8260SV ☒ TO-15	Oxygenates ☐ 8260SV ☐ TO-15	Naphthalene ☐ 8260SV ☐ TO-15 ☐ TO-17m	TPHv as Gas ☐ 8260SVm ☐ TO-15m	TPHv as Diesel (sorbent tube) ☐ TO-17m	Aromatic/Aliphatic Fractions ☐ 8260SVm ☐ TO-15m	Leak Check Compound ☐ DFA ☐ IPA ☐ He	Methane by EPA 8015m	Fixed Gases by ASTM D1945 ☐ CO2 ☐ O2 ☐ N2	Hold		
SV1-A		03/07/16	1213	SV	400mL	105	.48		X											
SV1-B		03/07/16	1218	SV	400mL	143	.56											X		

Approved/Relinquished by: Anna Jordan	Company: RGI	Date: 3/8/16	Time: 1102	Received by: Jon Chuswath	Company: H&P	Date: 3/11/16	Time: 1:30pm
Approved/Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Approved/Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

*Approval constitutes as authorization to proceed with analysis and acceptance of conditions on back

Rev 08/18/2014

H&P Mobile Geochemistry, Inc.
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EPA Method TO-15
Soil Vapor VOC List + Naphthalene

☆ - Report only these analytes YSE 3/18/14

Compound - Short List	CAS #	400mL RL Vapor (µg/m³)	400mL RL Vapor (ppbv)
Dichlorodifluoromethane (F12)	75-71-8	5.0	1.0
Chloromethane	74-87-3	2.1	1.0
Dichlorotetrafluoroethane (F114)	76-14-2	7.1	1.0
☆ Vinyl chloride	75-01-4	2.6	1.0
Bromomethane	74-83-9	15.8	4.0
Chloroethane	75-00-3	8.0	3.0
Acetone	67-64-1	24.1	10.0
Trichlorofluoromethane (F11)	75-69-4	5.6	1.0
☆ 1,1-Dichloroethene	75-35-4	4.0	1.0
Methylene chloride (Dichloromethane)	75-09-2	3.5	1.0
1,1,2-Trichlorotrifluoroethane (F113)	76-13-1	7.7	1.0
Carbon disulfide	75-15-0	6.3	2.0
☆ trans-1,2-Dichloroethene	156-60-5	8.0	2.0
1,1-Dichloroethane	75-34-3	4.1	1.0
2-Butanone (MEK)	78-93-3	29.9	10.0
☆ cis-1,2-Dichloroethene	156-59-2	4.0	1.0
Chloroform	67-66-3	4.9	1.0
1,2-Dichloroethane (EDC)	107-06-2	4.1	1.0
1,1,1-Trichloroethane	71-55-6	5.5	1.0
Benzene	71-43-2	3.2	1.0
Carbon tetrachloride	56-23-5	6.4	1.0
1,2-Dichloropropane	78-87-5	9.4	2.0
Bromodichloromethane	75-27-4	6.8	1.0
☆ Trichloroethene	79-01-6	5.5	1.0
cis-1,3-Dichloropropene	10061-01-5	4.6	1.0
4-Methyl-2-pentanone (MIBK)	108-10-1	8.3	2.0
trans-1,3-Dichloropropene	10061-02-6	4.6	1.0
1,1,2-Trichloroethane	79-00-5	5.5	1.0
Toluene	108-88-3	3.8	1.0
2-Hexanone (MBK)	591-78-6	8.3	2.0
Dibromochloromethane	124-48-1	8.6	1.0
1,2-Dibromoethane (EDB)	106-93-4	7.8	1.0
☆ Tetrachloroethene	127-18-4	6.9	1.0
1,1,1,2-Tetrachloroethane	630-20-6	7.0	1.0
Chlorobenzene	108-90-7	4.7	1.0
Ethylbenzene	100-41-4	4.4	1.0
m,p-Xylene	179601-23-1	8.8	2.0
Bromoform	75-25-2	10.5	1.0
Styrene	100-42-5	4.3	1.0
1,1,2,2-Tetrachloroethane	79-34-5	7.0	1.0
o-Xylene	95-47-6	4.4	1.0
4-Ethyltoluene	622-96-8	5.0	1.0
1,3,5-Trimethylbenzene	108-67-8	5.0	1.0
1,2,4-Trimethylbenzene	95-63-6	5.0	1.0

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EPA Method TO-15
Soil Vapor VOC List + Naphthalene

Compound - Short List	*CAS #*	*400mL RL Vapor (µg/m³)*	*400mL RL Vapor (ppbv)*
1,3-Dichlorobenzene	541-73-1	12.2	2.0
1,4-Dichlorobenzene	106-46-7	12.2	2.0
1,2-Dichlorobenzene	95-50-1	12.2	2.0
1,2,4-Trichlorobenzene	120-82-1	7.5	1.0
Hexachlorobutadiene	87-68-3	10.7	1.0
Leak Check Compound			
1,1-Difluoroethane (LCC)	75-37-6	5.4	2.0
Additional Compounds			
Naphthalene	91-20-3	5.3	1.0