FARALLON CONSULTING

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INTERIM ACTION WORK PLAN

BLOCK 38 WEST PROPERTY
500 THROUGH 536 WESTLAKE AVENUE NORTH
SEATTLE, WASHINGTON

Submitted by:
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For:
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ACRONYMS AND ABBREVIATIONS

1998 EA Update	letter regarding Preliminary Environmental Assessment Update, Westlake Avenue Property (428, 500, 510, and 520 Westlake Avenue North), Seattle, Washington dated April 5, 1999, from Mr. Rob Roberts and Ms. Julie K.W. Wukelic of HartCrowser, Inc. to City Investors VII LLC c/o Mr. Joe Delaney of Foster Pepper & Shefelman
2019 Ecology Letter	letter regarding Early Notice of Release of Hazardous Substances and Preliminary Determination of Liability for Release at the Block 38 West Contaminated Site dated August 13, 2019, from Ms. Tamara Cardona of the Washington State Department of Ecology to City Investors IX LLC
AIBS	Allen Institute for Brain Science
AIBS Building Site	the property at 601 Westlake Avenue on the Block 43 Property
American Linen Supply Co. – Dexter	the site encompassing contaminated soil and groundwater on and off the property at 700 Dexter Avenue North, including the BMR-Dexter CVOC Plume Avenue Site
Auto Services Company Site	the property at 630 Westlake Avenue North that comprises the northern portion of the Block 37 Property
bgs	below ground surface
Block 32 Property	the property at 500 Terry Avenue North (Ivars Commissary Site) and 1001 and 1021 Mercer Street (North Building City Place III Site), approximately 300 feet east of the Block 38 West Property
Block 37 Property	the property commonly known as 630 Westlake Avenue North and located one block north of the Block 38 West Property across Mercer Street
Block 38 East Property	the eastern half of the block between Mercer Street to the north, Westlake Avenue North to the west, Republican Street to the south, and a north-south–trending alley owned by the City of Seattle that bisects Block 38
Block 38 West Property	the western half of the block between Mercer Street to the north, Westlake Avenue North to the west, Republican Street to the south, and a north-south–trending alley owned by the City of Seattle that bisects Block 38, comprising King County Parcel Nos. 1983200196, 1983200180, and 1983200170

Block 38 West Site	as defined under the Washington State Model Toxics Control Act Cleanup Regulation, the area where hazardous substances released at the Block 38 West Property have come to be located at concentrations exceeding applicable cleanup levels
BMR-Dexter Property	the American Linen Supply Co. facility at 700 Dexter Avenue in Seattle, Washington
BTEX	benzene, toluene, ethylbenzene, and xylenes
Building	the multistory mixed-use building to be constructed on the Block 38 West Property
CFR	Code of Federal Regulations
City Investors	City Investor IX LLC
COCs	constituents of concern
Contaminated Soil	soil with COCs detected at concentrations exceeding MTCA Method A cleanup levels.
COPCs	constituents of potential concern
cPAHs	carcinogenic polycyclic aromatic hydrocarbons
CVOCs	chlorinated volatile organic compounds
draft RI/FS Work Plan	*Revised Agency Review Draft Remedial Investigation/Feasibility Study Work Plan, American Linen Supply Co – Dexter Avenue Site, 700 Dexter Avenue North, Seattle, Washington* dated April 15, 2019, prepared by PES Environmental, Inc.
DRO	total petroleum hydrocarbons as diesel-range organics
Ecology	Washington State Department of Ecology
Ecology Guidance	*Guidance for Remediation of Petroleum Contaminated Sites* revised June 2016, prepared by the Washington State Department of Ecology
EMMP	Environmental Media Management Plan
EPA	U.S. Environmental Protection Agency
Farallon	Farallon Consulting, L.L.C.
FS	feasibility study

GRO	total petroleum hydrocarbons as gasoline-range organics
IAWP	*Interim Action Work Plan, Block 38 West, 536 Westlake Avenue North, Seattle, Washingto*n dated November 8, 2019, prepared by Farallon Consulting, L.L.C. (this document)
Impacted Soil	soil with detectable concentrations of COCs and COPCs, including Contaminated Soil
Interurban Exchange	the former Jenks Service Station facility and a former fuel yard at the 2 Site property at 535 Terry Avenue North on the Block 38 East Property
Ivars Commissary Site	the property at 500 Terry Avenue North on the Block 32 Property
mg/kg	milligrams per kilogram
µg/l	micrograms per liter
MTCA	Washington State Model Toxics Control Act Cleanup Regulation
NAVD88	North American Vertical Datum of 1988
North Building City Place III Site	the property at 1001 and 1021 Mercer Street on the Block 32 Property
OnSite	OnSite Environmental Inc. of Redmond, Washington
ORO	total petroleum hydrocarbons as oil-range organics
PAHs	polycyclic aromatic hydrocarbons
RCW	Revised Code of Washington
Republican Street Drain	the 72-inch-diameter King County sewer main line in the Republican Street right-of-way and its backfill
RI	remedial investigation
Rosen Site	the area encompassing impacts from a reported release from a former heating oil underground storage tank for the Rosen building at 960 Republican Street on the Block 38 East Property
SEPA	State Environmental Policy Act
SVOCs	semivolatile organic compounds

TCE	trichloroethene
TEC	toxic equivalent concentration
total cPAHs TEC	a toxic equivalent concentration using a method prescribed by MTCA (WAC 173-340-708[e])
UST	underground storage tank
VOCs	volatile organic compounds
WAC	Washington Administrative Code
Westlake 76 Station Site	the southern portion of the Block 37 Property at 600 Westlake Avenue, adjacent rights-of-way, and adjacent properties where hazardous substances released from the former service station have come to be located

EXECUTIVE SUMMARY

Farallon Consulting, L.L.C. has prepared this Interim Action Work Plan (IAWP) on behalf of City Investors IX LLC (City Investors) to describe interim action activities planned for the property at 500 through 536 Westlake Avenue North in the South Lake Union area of Seattle, Washington (Block 38 West Property). It is anticipated that the interim action described in this IAWP initially will be implemented as an independent interim remedial action during negotiation of an Agreed Order between City Investors and the Washington State Department of Ecology (Ecology), and will later become a part of and implemented pursuant to such Agreed Order when entered into by Ecology and City Investors.

The Block 38 West Property totals approximately 1.06 acres of land and comprises King County Parcel No. 1983200196 on the northern portion of the Block 38 West Property (534 and 536 Westlake Avenue North), King County Parcel No. 1983200180 on the central portion of the Block 38 West Property (520 Westlake Avenue North), and King County Parcel No. 1983200170 on the southern portion of the Block 38 West Property (500 and 510 Westlake Avenue North). The Block 38 West Property was developed with structures formerly used for retail, temporary office space, storage, and parking. The Block 38 West Property structures currently are in the process of being demolished as part of the redevelopment planned for the Block 38 West Property.

Historical operations on the southern portion of the Block 38 West Property from the 1890s through 2019 included lumber storage, a blacksmith shop, warehouse storage, and retail and commercial operations. Historical operations on the central portion of the Block 38 West Property included lumber storage, a horse stable and wagon house, a blacksmith, a wagon shop, an auto repair facility, a veterinary hospital, parking, and retail operations. Historical operations on the northern portion of the Block 38 West Property included lumber storage, a transfer warehouse, and a commercial printer.

Subsurface investigations have been conducted at the Block 38 West Property since 1994. Based on the results of these subsurface investigations, petroleum hydrocarbons and polycyclic aromatic hydrocarbons have been detected at concentrations exceeding regulatory cleanup levels in soil and/or groundwater at the Block 38 West Property.

This interim action will remediate soil and groundwater with concentrations of petroleum hydrocarbons and polycyclic aromatic hydrocarbons exceeding Washington State Model Toxics Control Act Cleanup Regulation (MTCA) cleanup levels on the Block 38 West Property. The interim action will be conducted concurrent with redevelopment activities planned for the Block 38 West Property.

The scope of work for the interim action consists of:

- **Impacted soil excavation**, which includes excavation, handling, transportation, and disposal of impacted soil generated during mass excavation across the entirety of the Block 38 West Property to an approximate elevation of 10 feet below North American Vertical

Datum of 1988, and installation of shoring. Excavated soil will be transported to a permitted off-site facility for disposal.

- **Dewatering and treatment**, which includes installation of a dewatering system to achieve sufficient groundwater drawdown to enable excavation to the desired depth, and installation of a wastewater treatment system to treat constituents of concern in groundwater extracted from the Shallow and Intermediate Water-Bearing Zones and the Deep Outwash Aquifer to achieve MTCA cleanup standards and meet the authorized discharge criteria. Discharged groundwater will be monitored to confirm that the MTCA cleanup standards and authorized discharge criteria are met.
- **Waterproof concrete construction and vapor barrier installation**, which includes currently planned engineering controls that specify that the exterior walls and floor slab of the underground portion of the multistory mixed-use building planned on the Block 38 West Property be constructed of waterproof concrete below the water table and that a vapor barrier be installed above the water table. No provisions for drainage are planned or needed. The exterior walls and floor slab of the underground portion of the building and the additional protective measures of the waterproof concrete and vapor barrier will prevent future migration of and potential exposure to contaminated groundwater, if present, emanating from sources at properties adjacent to or in the vicinity of the Block 38 West Property.

The projected start date for the interim action is Fall 2019 in conjunction with the planned redevelopment of the Block 38 West Property. The final permits, including the Construction Stormwater General Permit, and authorizations from the City of Seattle, the lead jurisdiction for the redevelopment, have been obtained and/or confirmed. The completion of the interim action will be documented in an Interim Action Report.

1.0 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) has prepared this Interim Action Work Plan (IAWP) on behalf of City Investors IX LLC (City Investors) to describe interim action cleanup activities planned for the property at 500 through 536 Westlake Avenue North in the South Lake Union area of Seattle, Washington (Block 38 West Property) (Figures 1 and 2). The Block 38 West Property comprises the western half of the block between Mercer Street to the north, Westlake Avenue North to the west, Republican Street to the south, and to the east a north-south–trending alley owned by the City of Seattle that bisects the block. The eastern half of the same block is referred to as the Block 38 East Property; the whole block comprising the Block 38 West and Block 38 East Properties is referred to as Block 38. The interim action will be performed consistent with the cleanup requirements of the Washington State Model Toxics Control Act Cleanup Regulation (MTCA), as established in Chapter 173-340 of the Washington Administrative Code (WAC 173-340).

Subsurface investigations have been conducted at the Block 38 West Property since 1994. Based on the results of these subsurface investigations, petroleum hydrocarbons and polycyclic aromatic hydrocarbons (PAHs) have been detected at concentrations exceeding regulatory screening levels in soil and/or groundwater at the Block 38 West Property. The Block 38 West Site, as defined under MTCA, comprises the area where hazardous substances released at the Block 38 West Property have come to be located at concentrations exceeding MTCA cleanup levels (Figure 2).

Based on the letter regarding Early Notice of Release of Hazardous Substances and Preliminary Determination of Liability for Release at the Block 38 West Contaminated Site dated August 13, 2019, from Ms. Tamara Cardona of the Washington State Department of Ecology (Ecology) (2019) to City Investors (2019 Ecology Letter), regulatory interaction, reporting, and concurrence from all parties involved are required to support the regulatory closure process. Ecology has determined that an Agreed Order will be issued for the Block 38 West Site. It is expected that the Agreed Order will require City Investors to prepare a work plan to conduct a remedial investigation (RI) and feasibility study (FS), conduct an RI and FS, and prepare a draft Cleanup Action Plan for the Block 38 West Site. In addition, it is anticipated that the interim action described in this IAWP initially will be implemented as an independent interim remedial action during negotiation of the Agreed Order and will later become a part of and implemented pursuant to such Agreed Order[1].

[1] City Investors and Ecology are currently negotiating the terms of an Agreed Order. The interim action described in this IAWP may be conducted notwithstanding such negotiations provided that (a) the interim action does not foreclose or preempt the remedial actions under discussion or negotiation and such action does not foreclose the selection of a cleanup action; or (b) City Investors has provided reasonable notice to Ecology and Ecology does not object to such action. WAC 173-340-515(2). This interim action does not foreclose or preempt selection of a cleanup action, and City Investors has met with Ecology to advise Ecology regarding the interim action and, as noted elsewhere in this IAWP, will deliver a copy of this IAWP to Ecology. City Investors also contemplates that this IAWP, after review and comment by Ecology and the public, will become a part of and ultimately conducted under the Agreed Order.

The interim action will clean up soil and groundwater contaminated with petroleum hydrocarbons and PAHs, including naphthalenes and carcinogenic PAHs (cPAHs), within the limits of the Block 38 West Property. As more fully discussed below, it also will treat hazardous substances in groundwater during construction dewatering.

This cleanup will be conducted in conjunction with redevelopment of the Block 38 West Property by City Investors. The redevelopment includes construction of a multistory mixed-use building (Building) with a preliminary design for five stories above street level and four levels of parking below street level. The planned finish floor elevation of the lowest level of parking is -3.25 feet North American Vertical Datum of 1988 (NAVD88), with a planned excavation depth to an approximate elevation of -10 feet NAVD88. Redevelopment will require the complete removal of existing surface features and the railroad trestle. Hazardous building material surveys, abatement, and demolition will occur prior to the interim action and are not addressed in this IAWP. Additional soil and groundwater data that will be collected during the interim action will be used to update the dynamic conceptual site model for the Block 38 West Site and development of a Block 38 West Site-wide RI and FS.

1.1 PURPOSE AND OBJECTIVE

The purpose of this IAWP is to describe the cleanup action planned for soil and groundwater contaminated with petroleum hydrocarbons and PAHs, including naphthalenes and cPAHs, in order to mitigate the threat to human health or the environment within the limits of the Block 38 West Property. The extraction and treatment of contaminated groundwater also will prevent impacts from entering the Block 38 West Property and is expected to remove contaminant mass from groundwater with dissolved hazardous substances withdrawn by permitted construction dewatering.

Interim remedial actions are conducted to meet the requirements of MTCA as defined in WAC 173-340-430. The scope of work for the interim action cleanup has been developed in accordance with Ecology requirements and guidance, including MTCA. The interim action cleanup will be the substantial equivalent of an Ecology-conducted or -supervised remedial action for a portion of the Block 38 West Site and is expected to be part of the final cleanup action, but in any event, will not foreclose reasonable alternatives for the final cleanup action at the Block 38 West Site.

The interim action will permanently remove the contaminated soil and eliminate the Shallow Water-Bearing Zone and upper portion of the Intermediate Water-Bearing Zone during the mass excavation for the Building parking garage; therefore, constituents of concern (COCs) in soil and groundwater on the Block 38 West Property will no longer be present at concentrations exceeding MTCA cleanup levels. Groundwater conditions post-interim action will be evaluated during the remedial investigation for the Block 38 West Site.

Information obtained during the design and implementation of the interim action will be used for the RI, FS, and final cleanup process for the Block 38 West Site.

1.2 DOCUMENT ORGANIZATION

This IAWP has been organized into the following sections:

- **Section 2**, **Block 38 West Property Description and Background**, provides the Block 38 West Property description and history, a summary of current and historical uses of adjacent and surrounding lands, the geology and hydrogeology of the South Lake Union region, and a summary of previous investigations and remedial actions performed at the Block 38 West Property.
- **Section 3**, **Farallon Subsurface Investigations**, details the previous environmental investigations conducted by Farallon at the Block 38 West Property from 2014 to 2019.
- **Section 4**, **Summary of Releases and Remedial Actions on Adjacent Properties**, provides the previous environmental investigations and remedial actions conducted at the north-adjacent Block 37 Property, the east-adjacent Block 38 East Property, and the site encompassing contaminated soil and groundwater on and off property at 700 Dexter Avenue North (American Linen Supply Co. – Dexter Avenue North Site), which includes a plume of contaminated groundwater (BMR-Dexter CVOC Plume).
- **Section 5**, **Preliminary Conceptual Site Model**, discusses the constituents of potential concern (COPCs), media of concern, remediation levels for the interim action, confirmed and suspected source areas, nature and extent of contamination, and contaminant fate and transport at the Block 38 West Property.
- **Section 6**, **Permits and Other Regulatory Requirements**, summarizes applicable local, state, and federal laws and permitting and substantive requirements pertaining to the interim action.
- **Section 7**, **Interim Action Implementation**, describes the scope of work for Block 38 West Property preparation and mobilization, installation of dewatering wells, dewatering and treatment activities, contaminated soil excavation, and waterproof concrete construction and vapor barrier installation.
- **Section 8**, **Compliance Monitoring**, describes the protection, performance, and confirmational monitoring that will be conducted as part of the interim action.
- **Section 9**, **Reporting and Schedule**, describes reporting requirements and provides a schedule for implementation of the interim action.
- **Section 10**, **References**, lists the documents cited in this IAWP.
- **Section 11**, **Limitations**, provides Farallon's standard limitations applicable to this IAWP.

2.0 BLOCK 38 WEST PROPERTY DESCRIPTION AND BACKGROUND

This section provides the Block 38 West Property description and history, a summary of current and historical uses of adjacent and surrounding lands, the geology and hydrogeology of the South Lake Union region, and a summary of previous investigations and remedial actions performed at the Block 38 West Property.

2.1 BLOCK 38 WEST PROPERTY DESCRIPTION

The Block 38 West Property is in a commercial and light industrial area zoned as mixed residential and commercial in the South Lake Union area (SM-SLU 175/85-280) approximately 1 mile north of downtown Seattle. According to the King County GIS Center (2018), the Block 38 West Property comprises King County Parcel No. 1983200196 on the northern portion of the Block 38 West Property (534 and 536 Westlake Avenue North), King County Parcel No. 1983200180 on the central portion of the Block 38 West Property (520 Westlake Avenue North), and King County Parcel No. 1983200170 on the southern portion of the Block 38 West Property (500 and 510 Westlake Avenue North) (Figure 2).

The Block 38 West Property totals approximately 1.06 acres of land that previously was developed with structures formerly used for retail, temporary office space, storage, and parking. The Block 38 West Property structures currently are in the process of being demolished as part of the planned redevelopment. Adjacent street elevations vary from an approximate elevation of 41 feet NAVD88 on Republican Street adjoining the southern portion of the Block 38 West Property to an approximate elevation of 31 feet NAVD88 on Mercer Street adjoining the northern portion of the Block 38 West Property (Figure 2). The alley bisecting Block 38 and the east-adjacent Block 38 West Property is accessed from Mercer Street and descends from street level to an approximate elevation of 25 feet NAVD88, and is used for vehicle access to a parking garage on the Block 38 East Property. A historical timber-framed trestle extends north from Republican Street into the east-adjacent alley approximately 120 feet, to a point approximately 18 feet above the fenced-off southern portion of the alley (Figure 2). The trestle was constructed for support of the rail spur that extended out to the former shoreline of South Lake Union (Farallon 2018). As discussed below, the northern portion of the Block 38 West Property historically was marshland along the southern shore of Lake Union.

2.2 BLOCK 38 WEST PROPERTY HISTORY

The Block 38 West Property historically was undeveloped marshland that extended along the southern shore of Lake Union and onto the north-adjacent property in the late 1880s, as detailed in the draft *Phase I Environmental Site Assessment Report, South Lake Union Block 38 West Property, 500 through 536 Westlake Avenue North, Seattle, Washington* dated August 9, 2019, prepared by Farallon (2019) (2019 Phase I Report) and the letter regarding Preliminary Environmental Assessment Update, Westlake Avenue Property (428, 500, 510, and 520 Westlake Avenue North), Seattle, Washington dated April 5, 1999, from Mr. Rob Roberts and Ms. Julie K.W. Wukelic of HartCrowser, Inc. (1999) to City Investors VI LLC c/o Mr. Joe Delaney of Foster Pepper &

Shefelman (1998 EA Update). Historical operations at the Block 38 West Property have included the following:

- A lumber storage yard across the majority of the Block 38 West Property from the 1890s until approximately 1920;
- Small commercial operations (e.g., a blacksmith shop, a wagon shop) in pile-supported buildings on the southern parcel in the early 1900s, which were replaced in 1919 by a two-story masonry building with a basement level at 500 and 510 Westlake Avenue North;
- Retail and commercial operations (i.e., auto parts, appliances, school and office supplies, furniture storage, clothing, and outdoor equipment) at 500 and 510 Westlake Avenue North from the 1920s to 2019;
- Commercial operations (i.e., a horse stable and wagon house, a blacksmith shop, a wagon shop, an auto repair facility, and a veterinary hospital) from the early 1900s until 1950s on the central parcel at 520 Westlake Avenue North, which were replaced in 1964 with a two-story building with rooftop parking through 2019;
- Retail operations at 520 Westlake Avenue from 1964 to 2019; and
- Warehouse storage starting in the early 1920s and transitioning into commercial and retail operations, including a commercial printer, on the northern parcel at 534 and 536 Westlake Avenue North to 2019.

The structures on the Block 38 West Property that were used as retail, temporary office space, storage, and parking remained unchanged from 1969 through August 2019.

2.3 ADJACENT AND SURROUNDING LAND USES

The draft 2019 Phase I Report provided the following information regarding the potential for historical and/or current operations at adjacent properties 0.25 mile up-gradient and/or 0.125 mile cross- or down-gradient of the Block 38 West Property that are considered to have a potential to impact the Block 38 West Property[2]:

- The Block 37 Property at 600 Westlake Avenue North (Westlake 76 Station Site) and 630 Westlake Avenue North (Auto Service Company Site), one block north of the Block 38 West Property across Mercer Street (Figure 2). The Block 37 Property has primarily been used for commercial and industrial purposes since 1885. Historical operations included a lumber mill, a planning mill, lumber storage, two gasoline service stations, a creamery, a brewery, a restaurant, boat maintenance, cabinet manufacturing, and auto service and detailing. The Block 37 Property was developed with numerous commercial building up until 2006 and appeared vacant by 2009. Currently, the Block 37 Property is used for equipment storage and parking.

[2] The BRM-Dexter Property is not included here, but is discussed in Section 4.3.

- The Block 38 East Property at 535 Terry Avenue North (Interurban Exchange 2 Site) and 960 Republican Street (Rosen Site), east-adjacent and separated by an alley from the Block 38 West Property (Figure 2). The Block 38 East Property has primarily been used for commercial and light industrial purposes since the late 1800s. Historical operations on the Interurban Exchange 2 Site included a lumber mill and yard, gasoline service station, and fuel yard associated with coal storage on the northern portion of the Block 38 East Property through the 1950s. By the late 1960s, the Interurban Exchange 2 Site was a parking lot until redeveloped in 2009 with a five-story commercial office building. Historical operations on the Rosen Site included lumber storage until the late 1920s when a three-story commercial office building was built. The building was used as a warehouse for electrical appliances and general storage through the 1960s and currently is a medical and dental office. Figure 2 shows the location of historical features on the Block 38 East Property.
- The Block 32 Property at 500 Terry Avenue North (Ivars Commissary Site) and 1001 and 1021 Mercer Street (North Building City Place III Site), approximately 300 feet east of the Block 38 West Property (Figure 2). As early as the late 1880s, the eastern and southwestern portions of the Block 32 Property were developed with single-family residences and the northern portion was used for lumber staging and sawdust storage, with lumber storage and lumber mill operations expanding on the northern portion of the Block 32 Property until the early 1900s. In 1918, commercial businesses (i.e., a construction warehouse and a commercial building associated with a blacksmith, a wagon shop, and carriage and auto painting) had replaced the single-family residences on the southwestern portion of the Block 32 Property, a single-family residence remained on the central portion, and the northern portion was vacant. The surface grade was noted to be 10 to 12 feet below the Mercer Street grade during this period. By 1950, no single-family residences were present and the Block 32 Property was used for commercial and light industrial purposes, with a roofing warehouse on the northern portion and a cold storage and distribution warehouse on the southern portion through the late 1960s. The Block 32 Property currently is occupied by office buildings on the northern and southwestern portions and mixed-use commercial and residential buildings on the southeastern portion.
- The Block 43 Property at 601 Westlake Avenue (Allen Institute for Brain Science [AIBS] Building Site), approximately 300 feet northwest of the Block 38 West Property (Figure 2). The Block 43 Property has primarily been used for commercial and industrial purposes since the late 1800s. Historical operations included lumber storage, a steam laundry, a bottling facility, and scrap paper and auto storage. By 1950, the majority of Block 43 Property operations were associated with auto repair and fueling, and sales. An auto dealership and service shop occupied the Block 43 Property from the late 1970s through 2000. The Block 43 Property was redeveloped from 2013 to 2015 with a six-story commercial office building with four levels of below-grade parking, which is occupied by AIBS.

2.4 GEOLOGY AND HYDROGEOLOGY

The Puget Sound region is underlain by Quaternary sediments deposited by a number of glacial episodes. Deposition occurred prior to, during, and following glacial advances and retreats, creating the existing subsurface conditions. The naturally occurring sediments in the South Lake Union area consist primarily of interlayered and/or sequential deposits of alluvial clays, silts, and sands that typically are situated over deposits of glacial till that consist of silty sand to sandy silt with gravel. Outwash sediments consisting of sands, silts, clays, and gravels were deposited by rivers, streams, and post-glacial lakes during glacial advances and recessions. Advance outwash sediments have been largely over-consolidated by the overriding ice sheets. These advance outwash sediments are overlain by a till-like layer and/or recessional outwash sediments that are less consolidated (Galster and Laprade 1991).

The Block 38 West Property is approximately 600 feet south of Lake Union. According to a U.S. Geological Survey (1909) Seattle Special quadrangle map, the original shoreline of Lake Union extended farther south than its current location, to as far as the current location of Mercer Street. In the late 1800s and the early 1900s, the southern end of Lake Union was filled with sawdust and wood waste generated by lumber mill operations and with other fill materials. The historical use of Block 38 as a lumber mill and for lumber storage resulted in deposition of wood waste across Block 38. Field observations made during subsurface investigations conducted by Farallon and others confirmed a wood debris layer is present beneath the Block 38 West Property (Figure 3).

Cross sections depicting the general lithology and hydrogeology of the Block 38 West Property are presented on Figures 4 and 5, which are based on field observations made during the subsurface investigations conducted by Farallon and others and documented in boring logs (Appendix A). The locations of the cross sections are shown on Figure 3. According to Farallon observations made during subsurface investigations conducted on adjacent properties and at the Block 38 West Property and a review of boring logs from geotechnical drilling (GeoEngineers, Inc. [GeoEngineers] 2018), three general stratigraphic units are present at the Block 38 West Property:

- The shallowest unit consists of fill material with recent deposits, including lacustrine sediments, and comprises silt, sandy silt, and sand with variable gravel content. In some areas, this shallowest unit includes wood waste, peat, and organic silt. The shallowest unit is present across the Block 38 West Property.
- The fill and recent deposits are underlain by a dense stratum of heterogeneous glacially consolidated deposits comprising dense sand and variable silt and gravel content and very stiff to hard silt with variable sand and gravel content. According to GeoEngineers (2018), the recent glacially consolidated soil contact typically slopes down to the north toward Lake Union. At the Block 38 West Property, the contact occurs between approximate elevations of 11 to -6 feet NAVD88.
- A poorly graded dense advance glacial outwash sand with minor silt is encountered below the intermediate unit of glacially consolidated soil at elevations ranging from -30 to -40 feet NAVD88. The sand and gravel layer that was observed in the boring for monitoring well FMW-130 at an elevation of -22 feet NAVD88 is likely the transition zone between

the intermediate unit of glacially consolidated soil and the poorly graded dense advance glacial outwash sand. In some areas where the intermediate glacially consolidated unit is thin or absent, the top of the outwash sand is encountered at shallower depths. The glacial outwash has been noted to be underlain by very dense fine-grained soil during drilling of borings several hundred feet northwest of the Block 38 West Property.

Three general water-bearing zones are present at the Block 38 West Property:

- The uppermost water-bearing zone encountered in the fill and underlying recent deposits is referred to in documents for other properties in the South Lake Union area as the Shallow Water-Bearing Zone. The Shallow Water-Bearing Zone at the Block 38 West Property varies in thickness from approximately 5 to 15 feet and was encountered at depths ranging from approximately 5 to 8 feet below ground surface (bgs). Monitoring wells at the Block 38 West Property are screened within the Shallow Water-Bearing Zone, with the exception of monitoring wells FMW-130 and FMW-136, which are screened in glacially consolidated deposits comprising the Intermediate Water-Bearing Zone described below, and monitoring wells FMW-137 and FMW-138, which are screened in the outwash sand deposits comprising the Deep Outwash Aquifer that is also described below.
- A deeper water-bearing zone below the Shallow Water-Bearing Zone, referred to as the Intermediate Water-Bearing Zone, is present in the glacially consolidated soil at the Block 38 West Property encountered at approximate elevations of 5 to 10 feet NAVD88 (approximately 15 to 20 feet bgs). The Intermediate Water-Bearing Zone is continuous across the Block 38 West Property. Based on previous subsurface investigations, the Shallow Water-Bearing Zone at the Block 38 West Property is in direct communication with the Intermediate Water-Bearing Zone (i.e., there is no aquitard separating these groundwater-bearing zones).
- The third water-bearing zone is referred to as the Deep Outwash Aquifer, the top of which is present at approximate elevations of -30 and -40 feet NAVD88 (approximately 55 to 65 feet bgs) in dense advance outwash sand deposits consisting of sand with minor silt. The Deep Outwash Aquifer is continuous across the Block 38 West Property. The thickness of the Deep Outwash Aquifer is not known.

2.5 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS

Subsurface investigations have been conducted on the Block 38 West Property since 1999. This section summarizes the activities and results from previous subsurface investigations conducted by others at the Block 38 West Property. Figure 2 shows the location of historical features for the Block 38 West Property, east-adjacent Block 38 East Property, and north-adjacent Mercer Street right-of-way and Block 37 Property. Boring locations associated with investigations are shown on Figure 3.

2.5.1 HartCrowser, Inc. (1999)

The 1998 EA Update referenced previous work performed, including a Phase II soil investigation performed by Dames & Moore on the Block 38 West Property in 1994. The 1994 soil investigation

was performed in the area where a 1,500-gallon heating oil underground storage tank (UST) was removed in 1989 from the sidewalk north-adjacent to Republican Street, along the southern portion of the Block 38 West Property (Figure 2). The results from the 1994 soil investigation indicated that no petroleum-affected soil was present beneath the former heating oil UST; groundwater reportedly was not encountered.

2.5.2 GeoEngineers (2018)

GeoEngineers performed geotechnical engineering services at the Block 38 West Property in August 2018. The results of the geotechnical investigation were summarized in the draft *Geotechnical Engineering Services, Block 38, Seattle, Washington* dated September 17, 2018, prepared by GeoEngineers (2018) (2018 Geotechnical Report). Figures showing the boring locations and generalized cross sections from the 2018 Geotechnical Report are provided in Appendix B.

The 2018 Geotechnical Report summarized the subsurface conditions that were observed during the advancement of borings FB-1 through FB-6 and borings for monitoring wells FMW-132 through FMW-136 (Figure 3). The borings were completed to depths ranging from 10.0 to 51.5 feet bgs. Soil samples collected during the advancement of the borings were evaluated for moisture content, fines content, organic content, and Atterberg limits. Based on the evaluation of the geotechnical data collected for the Block 38 West Property, the following soil conditions were identified by GeoEngineers:

- Fill: Fill generally consists of very loose to medium dense silty sand with variable gravel, rubble (brick) and wood fragments, and soft to medium stiff silt and sandy silt. Wood waste is present in the lower portion of the fill soil. GeoEngineers speculated that a significant portion of the wood waste is likely from a lumber mill that previously operated in the vicinity of the Block 38 West Property. The thickness of fill at the Block 38 West Property is up to approximately 17 feet.
- Peat/Organic Silt Layer: A layer of organic material was encountered below the fill and generally consists of very soft to stiff peat, organic silt, and organic clay. The peat/organic silt layer is up to 9 feet thick and generally does not extend below an approximate elevation of 5 to 10 feet NAVD88.
- Recent Deposits: Recent deposits were encountered below the peat/organic silt layer and generally consist of medium dense sand with variable silt and gravel content and medium stiff to very stiff silt with variable sand content. The thickness of the recent deposits is up to approximately 18 feet.
- Glacially Consolidated Soil: Glacially consolidated soil was encountered below the recent deposits and generally consists of dense to very dense sand with variable silt and gravel content and very stiff to hard silt with variable sand and gravel content. Glacially consolidated soil represents competent foundation-bearing soil. The contact to glacially consolidated soil typically slopes down to the north toward Lake Union. The contact elevation to glacially consolidated soil ranges from approximate elevations of -6 to -11 feet NAVD88.

GeoEngineers estimated the regional water table at an elevation of 20 feet NAVD88 based on observed groundwater conditions in monitoring wells installed on adjacent properties and GeoEngineers' experience in the South Lake Union area. GeoEngineers further stated that the regional water table in the vicinity of the Block 38 West Property is influenced by recharge from Queen Anne Hill and Capitol Hill, infiltration of surface water, temporary dewatering activities, and changes in the water level in Lake Union. The 72-inch-diameter King County sewer main line in the Republican Street right-of-way and its backfill (Republican Street Drain), south of the Block 38 West Property, influence groundwater levels locally through leakage into the drain. The 2018 Geotechnical Report stated that the Block 38 West Property is near the groundwater divide where water either flows toward Lake Union to the north or toward Elliott Bay to the southwest.

3.0 FARALLON SUBSURFACE INVESTIGATIONS

Results of the subsurface investigations conducted by Farallon at the Block 38 West Property are summarized below. Farallon conducted four subsurface investigations at the Block 38 West Property: one in 2014, two in 2018, and one in 2019. The objectives of the subsurface investigations were to obtain lithologic, hydrologic, and analytical data to characterize environmental conditions at the Block 38 West Property to facilitate implementation of the interim action during the planned redevelopment project.

3.1 2014 SUBSURFACE INVESTIGATION

The 2014 subsurface investigation included advancement of a boring for collection of soil samples and a reconnaissance groundwater sample, installation of monitoring well FMW-130 within the boring, development of the monitoring well, and collection of groundwater samples from the monitoring well (Figure 3). Monitoring well FMW-130 was installed in July 2014 using a sonic drill rig operated by Cascade Drilling, L.P. of Woodinville, Washington. Monitoring well FMW-130 was advanced in the loading dock area beneath the existing building on the central portion of the Block 38 West Property. Soil samples were collected continuously during drilling of the boring for monitoring well FMW-130 to a depth of 60 feet bgs. A Farallon geologist performed lithologic logging and field screening for visual and olfactory evidence of contamination and volatile organic vapor concentrations as measured using a photoionization detector. A boring log and well completion diagram for monitoring well FMW-130 is included in Appendix A.

One reconnaissance groundwater sample was collected during drilling from a temporary monitoring well screened from 15 to 20 feet bgs on July 21, 2014. The reconnaissance groundwater sample was collected in general accordance with standard U.S. Environmental Protection Agency (EPA) (1996) low-flow groundwater sampling procedures.

Monitoring well FMW-130 was constructed on July 22, 2014 in accordance with the Minimum Standards for Construction and Maintenance of Wells, as established in WAC 173-160. The monitoring well was constructed using 2-inch-diameter Schedule 40 polyvinyl chloride casing and 0.010-inch slotted screen set from 45 to 55 feet bgs (elevation of -22.8 to 32.8 feet NAVD88). This interval was selected for placement of the well screen due to the presence of permeable silty sand and well-graded gravel with silt and sand, and because it is likely within the transition zone from the Intermediate Water-Bearing Zone to the Deep Outwash Aquifer. Monitoring well FMW-130 was sampled using EPA low-flow groundwater sampling procedures during the groundwater monitoring event on July 24, 2014.

Soil and reconnaissance groundwater samples were placed on ice in a cooler under standard chain-of-custody procedures, and delivered to OnSite Environmental Inc. of Redmond, Washington (OnSite) for laboratory analysis. The soil sample collected from the boring advanced for

construction of monitoring well FMW-130 at a depth of 20 feet bgs was submitted for laboratory analysis for the following constituents:

- Total petroleum hydrocarbons as gasoline-range organics (GRO) by Northwest Method NWTPH-Gx;
- Total petroleum hydrocarbons as diesel- and as oil-range organics (DRO and ORO, respectively) by Northwest Method NWTPH-Dx;
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021B; and
- PAHs and other semivolatile organic compounds (SVOCs) by EPA Method 8270D.

The reconnaissance groundwater sample collected from monitoring well FMW-130 was analyzed for one or more of the following constituents using the previously identified analytical methods, unless indicated otherwise:

- GRO;
- BTEX; and
- Other volatile organic compounds (VOCs), including chlorinated VOCs (CVOCs), by EPA Method 8260C.

3.2 2017 GROUNDWATER MONITORING

Monitoring well FMW-130 was sampled on July 3, 2017 using EPA low-flow groundwater sampling procedures. The groundwater sample was placed on ice in a cooler under standard chain-of-custody procedures, and delivered to OnSite for laboratory analysis. The groundwater sample was analyzed for the following constituents using the previously identified analytical methods:

- GRO;
- BTEX; and
- CVOCs.

3.3 2018 SUBSURFACE INVESTIGATION AND GROUNDWATER MONITORING OF SHALLOW AND INTERMEDIATE WATER-BEARING ZONES

In August 2018, 11 borings were advanced to depths up to 50 feet bgs for collection of soil and reconnaissance groundwater samples. Five of the borings were completed as monitoring wells, including Shallow Water-Bearing Zone monitoring wells FMW-132 through FMW-135 and Intermediate Water-Bearing Zone monitoring well FMW-136. Groundwater samples were collected from the five new monitoring wells and previously installed monitoring well FMW-130 (Figure 3). The purpose of the borings and monitoring wells was to evaluate soil and groundwater conditions and the quality of the Shallow and Intermediate Water-Bearing Zones. The methodology for the 2018 subsurface investigation and groundwater monitoring of the Shallow and Intermediate Water-Bearing Zones is summarized below.

Drilling was conducted using a limited-access hollow-stem-auger drilling rig operated by Geologic Drill Partners, Inc. of Bellevue, Washington between August 20 and 24, 2018 to advance 11 borings consisting of borings FB-01 through FB-06 and the borings for monitoring wells FMW-132 through FMW-136 (Figure 3). Soil samples were collected from each boring generally at 5-foot sampling intervals from an 18-inch-long split-spoon sampler driven by a 140-pound hammer in advance of the lead auger into the soil formation for collection of blow counts. A Farallon geologist observed subsurface conditions and prepared boring logs and well completion diagrams (Appendix A).

One reconnaissance groundwater sample was collected from each of the following borings: FB-1, FB-3, and FB-5. The reconnaissance groundwater samples were collected using EPA low-flow groundwater sampling procedures.

Monitoring wells FMW-132 through FMW-136 were constructed and developed using the same procedures and protocols as in the 2014 subsurface investigation.

Monitoring wells FMW-130 and FMW-132 through FMW-136 were sampled on August 30 and December 28, 2018. Groundwater sampling was conducted using EPA low-flow groundwater sampling procedures.

Soil, reconnaissance groundwater, and groundwater samples were placed on ice in a cooler under standard chain-of-custody procedures, and delivered to OnSite for laboratory analysis. Select soil samples were analyzed for the following constituents using the previously identified analytical methods, unless indicated otherwise:

- GRO;
- DRO and ORO;
- BTEX;
- CVOCs;
- PAHs and other SVOCs; and
- Arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver by EPA Series Methods 200/6000/7000.

Reconnaissance groundwater samples were analyzed for the following constituents using the previously identified analytical methods:

- GRO;
- DRO and ORO;
- BTEX;
- VOCs, including CVOCs and BTEX; and
- Total naphthalenes (boring FB-03 only).

Groundwater samples were analyzed for the following constituents using the previously identified analytical methods:

- GRO;
- DRO and ORO;
- CVOCs and BTEX; and
- PAHs, including naphthalenes and cPAHs.

3.4 2018 SUBSURFACE INVESTIGATION AND GROUNDWATER MONITORING OF DEEP OUTWASH AQUIFER

In November 2018, Deep Outwash Aquifer monitoring wells FMW-137 and FMW-138 were installed proximate to the northeastern and southeastern corners of the Block 38 West Property to evaluate groundwater quality in the Deep Outwash Aquifer (Figure 3). The methodology for the 2018 subsurface investigation and groundwater monitoring of the Deep Outwash Aquifer is summarized below.

Drilling was conducted using a full-size sonic drilling rig between November 3 and 18, 2018. During the advancement of the borings for the monitoring wells, soil was observed generally at 5-foot intervals and recorded in boring logs and well completion diagrams by a Farallon geologist (Appendix A).

Monitoring wells FMW-137 and FMW-138 were constructed and developed using as the same procedures and protocols as in the 2014 subsurface investigation. Monitoring well FMW-137 was screened from 72 to 85 feet bgs (elevation of -42 to 55 feet NAVD88) and monitoring well FMW-138 was screened from 90 to 100 feet bgs (elevation of -50 to 60 feet NAVD88).

Monitoring wells FMW-137 and FMW-138 were sampled on November 20 and December 28, 2018 using EPA low-flow groundwater sampling procedures. Groundwater samples were placed on ice in a cooler under standard chain-of-custody procedures and delivered to OnSite for laboratory analysis. Groundwater samples were analyzed for CVOCs by EPA Method 8260C.

3.5 2019 SUBSURFACE INVESTIGATION AND GROUNDWATER MONITORING

Supplemental subsurface investigation activities conducted in January 2019 included observation of and/or soil sample collection at 14 utility pothole locations within the alley (east) and sidewalk (north) adjacent to the Block 38 West Property (Figure 3). Groundwater sampling was conducted at monitoring wells FMW-130 and FMW-132 through FMW-136 in March 2019 and at monitoring wells FMW-137 and FMW-138 in May and July 2019.

The utility pothole work was conducted between January 7 and 26, 2019 and was conducted in conjunction with the utility locating work coordinated by Gary Merlino Construction Co. of Seattle, Washington and conducted by Applied Professional Services, Inc of North Bend,

Washington. The methodologies for the 2019 subsurface investigation and groundwater monitoring are summarized below.

The utility pothole work was conducted using an air knife and vacuum truck to remove shallow soil to expose the existing utilities. A Farallon geologist observed subsurface conditions and prepared boring logs (Appendix A). The information recorded on the boring logs included soil types encountered, visual and olfactory evidence of contamination, and volatile organic vapor concentrations as measured using a photoionization detector. Soil samples were collected from non-utility fill material directly beneath the utility backfill at shallow depths ranging from 3.0 to 4.5 feet bgs (elevations of 20.0 to 22.0 feet NAVD88). Soil samples were collected using a hand auger and transferred directly into laboratory-prepared glass sample containers fitted with Teflon-lined lids in accordance with Farallon's standard sampling procedures. Soil samples were collected from 4 of the 14 utility potholes based on field observations.

Soil samples were placed on ice in a cooler under standard chain-of-custody procedures and delivered to OnSite for laboratory analysis. Select soil samples were analyzed for the following constituents using the previously identified analytical methods, unless indicated otherwise:

- GRO;
- DRO and ORO;
- BTEX; and
- PAHs, including cPAHs and naphthalene, by EPA Method 8270D SIM.

Monitoring wells FMW-130 and FMW-132 through FMW-136 were sampled on March 26, 2018 using EPA low-flow groundwater sampling procedures and analyzed for the following constituents using the previously identified analytical methods:

- GRO;
- DRO and ORO;
- BTEX; and
- PAHs, including cPAHs and naphthalene.

Monitoring wells FMW-137 and FMW-138 were sampled on May 5 and July 8, 2019 using EPA low-flow groundwater sampling procedures and submitted to OnSite for laboratory analysis for CVOCs using the previously identified analytical method.

3.6 SUBSURFACE INVESTIGATIONS AND GROUNDWATER MONITORING ANALYTICAL RESULTS – 2014 TO 2019

A summary of the analytical results from soil and groundwater samples collected by Farallon during subsurface investigations and groundwater monitoring performed from 2014 through 2019 is presented below.

3.6.1 Soil

Analytical results for soil samples are presented on Figure 6 and in Tables 1 through 4, and are described below. Laboratory analytical reports are provided in Appendix C.

3.6.1.1 Total Petroleum Hydrocarbons and BTEX

At the Block 38 West Property, a total of 28 soil samples were collected from borings at depths up to 35 feet bgs and analyzed for total petroleum hydrocarbons and BTEX. In addition to the soil samples collected at the Block 38 West Property, a total of three soil samples were collected from utility potholes in the east-adjacent alley at depths up to 4.0 feet bgs and analyzed for total petroleum hydrocarbons and BTEX.

Of the 28 soil samples collected from the Block 38 West Property, DRO was detected at concentrations ranging from 97 to 730 milligrams per kilogram (mg/kg) in 7 soil samples collected at depths ranging from 2.5 to 15.0 feet bgs.

Of the three soil samples collected from the east-adjacent alley, DRO was detected at concentrations ranging from 520 to 9,400 mg/kg in two soil samples collected from the utility potholes at depths ranging from 3.0 to 4.0 feet bgs.

The only DRO concentration that exceeded the MTCA Method A cleanup level of 2,000 mg/kg in the soil samples collected by Farallon was detected in the soil sample collected from utility pothole PH-12 at a depth of 4.0 feet bgs, located in the east-adjacent alley and approximately 40 feet east of monitoring well FMW-130 (Figure 6; Table 1). The laboratory report indicated that the DRO results may be impacted by hydrocarbons detected in the oil and/or gasoline ranges (i.e., ORO and GRO). DRO was not detected at concentrations that exceed the MTCA cleanup level in soil on the Block 38 West Property.

Of the 28 soil samples collected from the Block 38 West Property, ORO was detected at concentrations ranging from 250 to 3,700 mg/kg in 10 soil samples collected at depths ranging from 2.5 to 15.0 feet bgs. ORO was detected at concentrations exceeding the MTCA Method A cleanup level of 2,000 mg/kg in samples collected from two locations: boring FB-1 at a depth of 5 feet bgs and the boring for monitoring well FMW-132 (located approximately 20 feet southwest of boring FB-1) at a depth of 5 feet bgs (Figure 6; Table 1).

Of the three soil samples collected from the east-adjacent alley, ORO was detected at concentrations ranging from 1,100 to 21,000 mg/kg in two soil samples collected from the utility potholes at depths ranging from 3.0 to 4.0 feet bgs. ORO was detected at a concentration exceeding the MTCA Method A cleanup level of 2,000 mg/kg in the soil sample collected from utility pothole PH-12 at a depth of 4.0 feet bgs (Figure 6; Table 1).

Two soil samples collected from boring FB-1, including the soil sample collected at a depth of 5.0 feet bgs, were re-analyzed for DRO and ORO after using the sulfuric acid/silica gel cleanup procedure intended to remove interference in analytical results presented by

natural organic material in the sample aliquot, which could have contributed to reported petroleum hydrocarbon concentrations in samples analyzed using the standard analytical method without cleanup. DRO and ORO were detected at lower concentrations in samples analyzed using sulfuric acid/silica gel cleanup than in the two soil samples analyzed without sulfuric acid/silica gel cleanup, suggesting limited interference from natural organic material in these soil samples.

Of the soil samples collected from Block 38 West Property, GRO was detected at a concentration of 17 mg/kg in the soil sample collected from boring FB-6 at a depth of 2.5 feet bgs, which is less than the MTCA Method A cleanup level of 100 mg/kg (Figure 6; Table 1). GRO was not detected at concentrations exceeding laboratory reporting limits in the remaining 27 soil samples collected from the 12 borings. The laboratory report indicated that the chromatogram for the GRO detected in the soil sample collected from boring FB-6 was not a typical gasoline product.

Of the soil samples collected from the east-adjacent alley, GRO was detected at a concentration of 2,100 mg/kg in the soil sample collected from utility pothole PH-12 at a depth of 4.0 feet bgs, which exceeds the MTCA Method A cleanup level of 100 mg/kg (Figure 6; Table 1). GRO was not detected at concentrations exceeding laboratory reporting limits in the remaining two soil samples collected from the utility potholes. GRO was not detected at concentrations that exceed the MTCA cleanup level in soil on the Block 38 West Property.

BTEX was not detected at concentrations exceeding laboratory reporting limits in 28 soil samples collected from 12 borings advanced at the Block 38 West Property. Soil samples collected from the utility potholes in the east-adjacent alley were not analyzed for BTEX.

3.6.1.2 Polycyclic Aromatic Hydrocarbons, Other Semivolatile Organic Compounds, and Chlorinated Volatile Organic Compounds

Total cPAHs were calculated as a toxic equivalent concentration (TEC) using a method prescribed by MTCA (WAC 173-340-708[8][e]): total cPAHs TEC. The calculation is based on a toxicity equivalency factor-weighted sum of concentrations of individual cPAHs.[3]

At the Block 38 West Property, a total of 20 soil samples were collected at depths up to 35 feet bgs and analyzed for cPAHs, naphthalenes, and other SVOCs, and seven soil samples were collected at depths up to 50 feet bgs and analyzed for CVOCs. In addition to the soil samples collected at the Block 38 West Property, a total of four soil samples were collected from the east-adjacent alley at depths up to 4.5 feet bgs and analyzed for cPAHs.

[3] Benzo(a)Pyrene, benzo(a)Anthracene, benzo(b)Fluoranthene, benzo(j,k)Fluoranthene, chrysene, dibenzo(a,h)Anthracene, and indeno(1,2,3-cd)Pyrene.

Of the 20 soil samples collected from the Block 38 West Property, total cPAHs TEC was detected at concentrations ranging from 0.036 to 15 mg/kg in 6 soil samples collected from 5 of the 12 borings at depths ranging from 2.5 to 15.0 feet bgs (Figure 6; Table 2). Total cPAHs TEC was detected at concentrations exceeding the MTCA Method A cleanup level of 0.1 mg/kg in five of the six soil samples where total cPAHs TEC was detected. Total cPAHs TEC exceeded the MTCA Method A cleanup level in samples collected from the following five locations:

- A concentration of 3.4 mg/kg in the soil sample collected from boring FB-1 at a depth of 5 feet bgs;
- A concentration of 15 mg/kg in the soil sample collected from boring FB-2 at a depth of 5 feet bgs;
- A concentration of 0.52 mg/kg in the soil sample collected from boring FB-4 at a depth of 10 feet bgs;
- A concentration of 0.65 mg/kg in the soil sample collected from boring FB-6 at a depth of 2.5 feet bgs; and
- A concentration of 12.5 mg/kg in the soil sample collected from the boring for monitoring well FMW-132 at a depth of 5 feet bgs.

Of the four soil samples collected from the east-adjacent alley, total cPAHs TEC was detected at concentrations ranging from 0.14 to 152 mg/kg in three soil samples collected from three of the four utility potholes at depths ranging from 3.0 to 4.0 feet bgs (Figure 6; Table 2). Total cPAHs TEC was detected at concentrations exceeding the MTCA Method A cleanup level of 0.1 mg/kg in three of the four soil samples where total cPAHs TEC was detected. Total cPAHs TEC exceeded the MTCA Method A cleanup level in samples collected from the following three locations:

- A concentration of 0.14 mg/kg in the soil sample collected from utility pothole PH-4 at a depth of 4.5 feet bgs;
- A concentration of 0.39 mg/kg in the soil sample collected from utility pothole PH-11A at a depth of 4 feet bgs; and
- A concentration of 152 mg/kg in the soil sample collected from utility pothole PH-12 at a depth of 4 feet bgs.

A total naphthalene concentration was calculated using the method prescribed by MTCA. The calculation is a sum of concentrations of three individual naphthalenes.[4] Of the soil samples collected from the Block 38 West Property, total naphthalenes were detected at concentrations ranging from 0.029 to 6.6 mg/kg in 14 of the 20 soil samples submitted for laboratory analysis. The samples were collected from 10 of the 12 borings at depths ranging from 2.5 to 30.0 feet bgs. Total naphthalenes were detected at a concentration of 6.6 mg/kg

[4] Naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene.

in the soil sample collected from the boring for monitoring well FMW-132 at a depth of 5 feet bgs, which exceeds the MTCA Method A cleanup level of 5 mg/kg (Figure 6; Table 2). Soil samples collected from the utility potholes in the east-adjacent alley were not analyzed for individual naphthalenes.

Some PAHs and other SVOCs[5] were detected at concentrations exceeding laboratory reporting limits but less than MTCA Method A and/or B cleanup levels in 13 of the 20 soil samples collected from the Block 38 West Property and submitted for laboratory analysis. These samples were collected from 10 of the 12 borings at depths ranging from 2.5 to 35.0 feet bgs. PAHs and other SVOCs were not detected at concentrations exceeding laboratory reporting limits in 7 of the 20 soil samples submitted for laboratory analysis, collected at depths of up to 30 feet bgs (Table 2). Soil samples collected from utility potholes in the east-adjacent alley were not analyzed for non-cPAHs or other SVOCs.

A total of seven soil samples collected from five borings on the Block 28 West Property at depths up to 50 feet bgs were analyzed for CVOCs. CVOCs were not detected at concentrations exceeding laboratory reporting limits in the soil samples collected from borings FB-02, FB-04, and FB-05 and the borings for monitoring wells FMW-135 and FMW-136 (Table 3). Soil samples collected from the utility potholes in the east-adjacent alley were not analyzed for CVOCs.

3.6.1.3 Metals

Barium, chromium, lead, and/or mercury were detected at concentrations exceeding laboratory reporting limits but less than MTCA Method A cleanup levels in all 15 soil samples collected from the Block 38 West Property and submitted for laboratory analysis. These samples were collected from 9 of the 12 borings at depths ranging from 5 to 35 feet bgs (Table 4). Remaining metals analyzed were not detected at concentrations exceeding MTCA Method A cleanup levels or laboratory reporting limits. No toxicity characteristic leaching procedure laboratory analysis was conducted for disposal characterization, as total metals concentrations were considerably less than 20 times the toxicity characteristic leaching procedure criteria for metals concentrations in soil acceptable for disposal at Subtitle D permitted facilities. Soil samples collected from the utility potholes in the east-adjacent alley were not analyzed for metals.

3.6.2 Groundwater

Groundwater flow direction and groundwater analytical results are summarized on Figures 7 and 8. Analytical results for groundwater samples are presented in Tables 5 through 8 and described below. Laboratory analytical reports are provided in Appendix C.

[5] Acenaphthene, acenaphthylene, anthracene, benzo(g,h,i)Perylene, fluoranthene, fluorene, phenanthrene, pyrene, 2,4-dimethylphenol, carbazole, and dibenzofuran.

3.6.2.1 Groundwater Elevation

Groundwater elevation contours were developed using the groundwater elevation data collected during the 2018 and 2019 groundwater monitoring events. Depth to water in monitoring wells FMW-130 and FMW-132 through FMW-136 ranged from 4.42 to 8.66 feet bgs (Table 5). Based on the depth-to-water measurements, calculated groundwater elevations ranged from 17.38 to 18.66 feet NAVD88 at the Block 38 West Property (Table 5). Based on groundwater levels measured in wells screened in the Shallow Water-Bearing Zone during the March 26, 2019 groundwater monitoring event, the inferred groundwater flow direction for this zone is southwest, with an average horizontal hydraulic gradient of approximately 0.006 foot per foot. The groundwater flow direction within the Block 38 West Property was not estimated for the Intermediate Water-Bearing Zone or the Deep Outwash Aquifer due to an insufficient number of wells screened in those water-bearing zones at the Block 38 West Property[6]. A groundwater elevation contour map for the Shallow Water-Bearing Zone at the Block 38 West Property is provided as Figure 7.

Groundwater flow direction in the vicinity of the Block 38 West Property has been affected in recent years by transient conditions related to construction dewatering activities in the South Lake Union area, and likely on a more consistent basis due to the presumed effects of groundwater infiltration into the Republican Street Drain structure or backfill. The Republican Street Drain, approximately 20 feet south of the southern boundary of the Block 38 West Property, receives inflows from Seattle Public Utilities' combined mains and flows westward toward Elliott Bay. The Republican Street Drain is known to draw shallow groundwater flow in the South Lake Union area, which then drains through the backfill material toward the west. The invert elevation of the reinforced concrete pipe of the Republican Street Drain at a manhole immediately southwest of the Block 38 West Property is at an approximate elevation of 14 feet NAVD88 (approximately 27 feet bgs).

Other factors affecting groundwater flow direction in the Shallow Water-Bearing Zone at the Block 38 West Property include variable characteristics of water-bearing fill and groundwater recharge at higher elevations on Queen Anne Hill and Capitol Hill flowing eastward and westward, respectively, down toward the South Lake Union area and the water level of Lake Union controlled at the Hiram M. Chittenden-Ballard Locks. The groundwater flow direction at the Block 38 West Property likely is variable over time.

3.6.2.2 Total Petroleum Hydrocarbons and BTEX

DRO and/or ORO were detected at concentrations ranging from 260 to 1,000 micrograms per liter (µg/l) in a reconnaissance groundwater sample collected from boring FB-3 and in groundwater samples collected from three monitoring wells (Figure 8; Table 6). DRO was detected at concentrations exceeding the MTCA Method A cleanup level of 500 µg/l in

[6] Farallon has performed an assessment of groundwater flow direction in the Deep Outwash Aquifer but that assessment and the resulting conclusion are beyond the scope of this IAWP and will be presented in connection with the RI.

groundwater samples collected from two locations: at a concentration of 660 µg/l in a reconnaissance groundwater sample collected from boring FB-3 and at concentrations ranging from 540 to 1,000 µg/l in groundwater samples collected from monitoring well FMW-134. The laboratory reports indicated that the DRO results may be impacted by hydrocarbons detected in the gasoline range (i.e., GRO) in the two groundwater samples collected from monitoring well FMW-134 on August 30, 2018 and March 26, 2019, respectively. ORO was not detected at concentrations exceeding the MTCA Method A cleanup level. DRO and ORO were not detected at concentrations exceeding laboratory reporting limits in the remaining groundwater samples collected at the Block 38 West Property (Table 6).

Benzene was detected at a concentration of 5.1 µg/l, slightly exceeding the MTCA Method A cleanup level of 5 µg/l, in the reconnaissance groundwater sample collected from the boring for monitoring well FMW-130 at a depth of 15 to 20 feet bgs (elevation of 7.2 to 2.2 feet NAVD88) in July 2014. Toluene, ethylbenzene, and xylenes were not detected at concentrations exceeding MTCA Method A cleanup levels. Reconnaissance groundwater samples are typically more turbid, with a greater density of suspended solids, and COCs sorb onto the suspended soil particles, resulting in concentrations reported for groundwater samples that typically are biased high and not representative of groundwater quality.

GRO was detected at a concentration of 140 µg/l in the groundwater sample collected from monitoring well FMW-134, which is less than the MTCA Method A cleanup level (Figure 8; Table 6). Preliminary laboratory analytical results indicated that GRO was detected at concentrations exceeding the MTCA Method A cleanup level in the reconnaissance groundwater sample collected from monitoring well FMW-130 and groundwater samples collected from monitoring well FMW-134. However, upon further evaluation the laboratory analytical reports indicated that the GRO concentration exceeding the MTCA Method A cleanup level detected in the groundwater sample collected from monitoring well FMW-134 was not typical of a gasoline product, and the GRO concentration detected in the reconnaissance groundwater sample collected from the boring for monitoring well FMW-130 was attributed to a single peak on the chromatogram that was in the range of naphthalene.[7,8] Accordingly, GRO is not considered a COC for groundwater..

GRO and BTEX were not detected at concentrations exceeding laboratory reporting limits in the remaining groundwater samples collected at the Block 38 West Property (Table 6).

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[7] The laboratory report indicated that the concentration of petroleum hydrocarbons characterized as GRO in this groundwater sample was attributed to a single peak on the chromatogram, which was in the range of naphthalene. Naphthalene was quantified at a concentration of 290 µg/l in this groundwater sample. Total naphthalenes was quantified at 312 µg/l.

[8] The laboratory report indicated that the concentration of petroleum hydrocarbons characterized as GRO in this reconnaissance groundwater sample was not similar to a typical gas.

3.6.2.3 Polycyclic Aromatic Hydrocarbons

Total cPAHs TEC was detected at a concentration of 0.0099 µg/l in the groundwater sample collected from monitoring well FMW-130 on March 26, 2019, which is less than the MTCA cleanup level (Figure 8; Table 7). Total cPAHs TEC was not detected at concentrations exceeding laboratory reporting limits in the remaining groundwater samples analyzed.

Total naphthalenes were detected at concentrations ranging from 0.39 to 650 µg/l in 7 of the 15 groundwater samples submitted for laboratory analysis, collected from one of two borings and four of eight monitoring wells sampled (Figure 8; Table 7). Total naphthalenes were detected at concentrations exceeding the MTCA Method A cleanup level of 160 µg/l in the following groundwater samples:

- Total naphthalenes were detected at a concentration of 650 µg/l in a reconnaissance groundwater sample collected from the boring for monitoring well FMW-130[9] at a depth of 15 to 20 feet bgs (elevation of 7.2 to 2.2 feet NAVD88) in July 2014; and
- Total naphthalenes were detected at a concentration of 312 µg/l in the groundwater sample collected from monitoring well FMW-134 in August 2018.

Some other PAHs were detected at concentrations exceeding laboratory reporting limits in 9 of the 13 groundwater samples submitted for laboratory analysis, collected from 4 of the 6 monitoring wells sampled (Table 7). The detected concentrations of PAHs were less than MTCA Method A and/or Method B cleanup levels.

3.6.2.4 Volatile Organic Compounds

BTEX results were discussed in Section 3.6.2.2, Petroleum Hydrocarbons. Remaining VOCs were detected at concentrations exceeding laboratory reporting limits at the following locations:

- 1,1,1-Trichloroethane was detected at a concentration of 0.26 µg/l in the groundwater sample collected from monitoring well FMW-130 in July 2014, which is less than the MTCA Method A cleanup level of 200 µg/l (Table 8).
- Cis-1,2-dichloroethene was detected at concentrations ranging from 0.22 to 1.3 µg/l in groundwater samples collected from monitoring wells FMW-130 and FMW-136 through FMW-138 in 2018 and 2019, which are less than the MTCA Method B cleanup level of 16 µg/l (Table 8).
- Acetone was detected at a concentration of 7.4 µg/l in the reconnaissance groundwater sample collected from boring FB-3 in August 2018, which is less than the MTCA Method A cleanup level of 7,200 µg/l (Table 8).
- Chloroform was detected at concentrations ranging from 0.41 to 2.7 µg/l in 3 of the 18 groundwater samples submitted for laboratory analysis, collected from the 3

[9] The screen for monitoring well FMW-130 subsequently was set between elevations of -22.8 to 32.8 feet NAVD88.

borings and 6 monitoring wells sampled (Table 8). Chloroform was detected at a concentration of 2.7 µg/l in the groundwater sample collected from monitoring well FMW-136 in August 2018, which exceeds the MTCA Method B cleanup level of 1.41 µg/l. Chloroform was also detected in a water sample collected from the potable water supply, which was used during drilling (Farallon 2018). Chloroform is a byproduct of the treatment of municipal water supplies and a common contaminant in analytical laboratories; therefore, chloroform was not retained as a COC for groundwater.

VOCs were otherwise not detected at concentrations exceeding laboratory reporting limits or MTCA Method A and/or B cleanup levels in the remaining groundwater samples collected from the Block 38 West Property (Table 8).

4.0 SUMMARY OF RELEASES AND REMEDIAL ACTIONS ON NEARBY PROPERTIES

Subsurface investigations and/or remedial actions have been conducted at all of the properties discussed in Section 2.3, Adjacent and Surrounding Land Uses. The properties discussed in more detail below have documented releases and/or remedial actions that abut or are within 100 feet of the Block 38 West Property. This section summarizes the activities and results from previous investigations and/or remedial actions conducted at immediately adjacent sites.

4.1 BLOCK 37 PROPERTY

Historical operations on the Block 37 Property resulted in the release of hazardous substances to soil and groundwater beneath the Block 37 Property, adjacent rights-of-way, and adjacent properties. Documented releases at two service stations on the Block 37 Property resulted in two sites: the Westlake 76 Station Site, which comprises the southern portion of the Block 37 Property, adjacent rights-of-way, and adjacent properties; and the Auto Service Company Site on the northern portion of the Block 37 Property. The two former service stations (Westlake 76 Station facility and the Auto Service Company facility) are described below.

The Westlake 76 Station facility was present on the southwestern portion of the Block 37 Property (Figure 2). The Westlake 76 Station facility was constructed in 1965 and comprised four 10,000-gallon fuel USTs, a waste oil UST, a heating oil UST, four hydraulic hoists, two pump islands, product dispensers, and an associated station building. The USTs were permanently decommissioned and removed from the Block 37 Property when the Westlake 76 Station facility was demolished in September 2008 (Stantec 2008).

The Auto Service Company facility was present on the northern portion of the Block 37 Property as early as 1930 and operated until the late 1960s or early 1970s. The USTs associated with the Auto Service Company facility reportedly had not been used since 1972, with the exception of a 500-gallon waste oil UST. In 1990, the USTs were permanently decommissioned and removed from the Auto Service Company Site by SCS Engineers (1990).

A release of approximately 80,000 gallons of premium leaded gasoline from the Westlake 76 Station facility was reported in May 1980. A release of approximately 600 gallons of gasoline was reported from a product line that was broken by a contractor during the removal of waste oil and heating oil USTs from the Westlake 76 Station facility in May 2001.

RIs and multiple cleanup actions conducted by others, including mass excavation, product removal, and operation of a soil vapor extraction and air sparging system, have been completed at the Westlake 76 Station Site to address the petroleum contamination (ATC 2018) (Appendix D). An interim action involving excavation of the remaining petroleum-contaminated soil on the southeastern portion of the Westlake 76 Station Site has been proposed, but the work is not yet scheduled (ATC 2018).

Due to the significant amount of data associated with the Westlake 76 Station Site, only select analytical results for soil and groundwater samples collected from the southern portion of Westlake 76 Station Site within the Mercer Street and Westlake Avenue North rights-of-way are summarized on Figures 6 and 8, presented in Tables 1 through 8, and described below. A comprehensive summary of soil and groundwater data for the Westlake 76 Station Site is provided in the *Remedial Investigation/Feasibility Study/Cleanup Action Plan, Former Conoco Phillips Facility No. 255353, 600 Westlake Avenue North, Seattle, Washington* dated February 16, 2018, prepared by ATC (2018).

Releases from the Westlake 76 Station facility have impacted soil and groundwater on the southern portion of the Block 37 Property, adjacent rights-of-way, and adjacent properties (ATC 2018). Although the shallow groundwater flow direction in South Lake Union is variable (north to south) as described in Section 3.6.2, Groundwater, impacts to soil and groundwater from the Westlake 76 Station Site have been documented under and south of Mercer Street as early as 1991 (ATC 2018). Petroleum hydrocarbons were not detected at concentrations exceeding MTCA cleanup levels in soil samples collected from monitoring well MW-41. Benzene was detected at concentrations of 67 and 10 µg/l, exceeding the MTCA Method A cleanup level, in groundwater samples collected from monitoring well MW-41 in 1991 and 1994, respectively (Table 6).

GRO, benzene, ethylbenzene, total xylenes, and PAHs as total naphthalenes were detected at concentrations exceeding MTCA Method A cleanup levels in soil samples collected from the boring advanced for monitoring well MW-71 at an elevation of 10.4 feet NAVD88 in 2005 (Figure 6; Tables 1 and 2). GRO, DRO, and benzene have been detected at concentrations exceeding MTCA Method A cleanup levels in groundwater samples collected from monitoring well MW-71 during the period from 2005 when the well was installed through 2010, after which the monitoring well was no longer sampled (Figure 8; Table 6). In addition, ORO and kerosene were detected at concentrations exceeding MTCA Method A cleanup levels from 2008 through 2010 and total naphthalenes were detected at concentrations exceeding the MTCA cleanup level in 2006, 2007, and 2009 in groundwater samples collected from monitoring well MW-71 (Figure 8; Table 7). Additional data for borings and monitoring wells shown on Figures 6 and 8 are presented in Tables 1 through 8.

Based on the results of previous investigations and remedial actions conducted by others (ATC 2018), the Westlake 76 Station Site COCs for soil and groundwater include GRO, BTEX, and lead. However, in an opinion letter dated August 21, 2018, Ecology (2018) identified the following COCs for the Westlake 76 Station Site:

- GRO, DRO, ORO, BTEX, naphthalene, cPAHs, and lead in soil; and
- GRO, DRO, ORO, BTEX, methyl tert-butyl ether, naphthalene, and lead in groundwater.

Ecology (2018) determined that further action was necessary to evaluate COCs in soil in the rights-of-way and that additional soil and groundwater data were necessary to define the full horizontal and vertical extent of contamination.

4.2 BLOCK 38 EAST PROPERTY

Historical operations on the Block 38 East Property resulted in the release of hazardous substances to soil and groundwater beneath the Block 38 Property, adjacent rights-of-way, and adjacent properties (Figure 2). Documented releases are associated with the former Jenks Service Station facility (Lot 1) and a former fuel yard that consisted of coal storage and distribution (Lots 2 through 5), which collectively comprise the Interurban Exchange 2 Site. A reported release from a former heating oil UST (Lot 6) for the Rosen building comprises the Rosen Site (Lots 6 and 7). Figure 2 shows the location of historical features on the Block 38 East Property and lot configuration. A summary of environmental investigations and remedial actions completed (GeoEngineers 1999, 2008) follows.

Lot 1 of the Interurban Exchange 2 Site was the location of the former Jenks Service Station facility, which reportedly included eight fuel USTs from the early 1940s to the early 1960s. The configuration of the USTs and details regarding the permanent decommissioning and removal of the USTs associated with the Jenks Service Station facility are unknown. A remedial excavation was conducted on Lots 1 and 2 of the Interurban Exchange 2 Site in 1993; however, due to residual petroleum hydrocarbon impacts and plans for redevelopment, the same area was over-excavated in 2008 to remove petroleum-contaminated soil to the maximum extent practicable. Lots 2 through 5 of the Interurban Exchange 2 Site were associated with a former fuel yard that consisted of coal storage bins where coal was stored for distribution from the 1930s to the late 1950s. A remedial excavation was conducted in 2008 to remove PAH- and metals-impacted soil from Lots 3 through 5. Appendix E provides information regarding the historical soil and groundwater sample locations, the extent of the 1993 and 2008 remedial excavations, and a summary of soil confirmation data.

Due to the significant amount of data associated with the Interurban Exchange 2 Site, only select analytical results for soil and groundwater samples collected from the western portion of the Interurban Exchange 2 Site are summarized on Figures 6 and 8, presented in Tables 1 through 8, and discussed below.

Based on previous investigations and remedial actions, petroleum-impacted soil was present on Lots 1 and 2 and attributed to the former Jenks Service Station facility and associated former USTs, product lines, and fuel dispensers. GRO, DRO, and/or ORO were detected at concentrations exceeding MTCA Method A cleanup levels in confirmation soil samples collected from the northern sidewall, eastern sidewall, and base of the excavation from the 1993 remedial excavation (GeoEngineers 1994). The petroleum-impacted soil that remained in place after the 1993 excavation was subsequently removed by the remedial excavation conducted in 2008 in conjunction with redevelopment. Lots 1 and 2 were excavated to an approximate elevation of 16 or 15 feet NAVD88 (GeoEngineers 2008). GRO was detected at a concentration exceeding the MTCA Method A cleanup level in all four confirmation samples collected from the northern sidewall of the excavation (Appendix E). GRO, DRO, ORO, and BTEX concentrations were less than MTCA Method A cleanup levels in the remaining confirmation samples collected from the sidewall and base of the excavation (GeoEngineers 2008) (Appendix E). PAHs were not analyzed in confirmation soil samples collected from the excavation conducted on Lots 1 and 2 in 2008.

Based on previous investigations PAHs, including naphthalene and cPAHs, and metals (lead and cadmium) were detected at concentrations exceeding MTCA Method A cleanup levels in soil on Lots 3 through 5 (Figure 6). GeoEngineers (2008) observed that three distinct stratigraphic layers existed under Lots 3 through 5, and that soil samples with PAHs or metals detected at concentrations exceeding MTCA Method A cleanup levels were within the upper soil fill layer. The three layers were described as follows:

- An upper fill layer consisting of sand, silt, wood chips, and coal fragments from the ground surface to a depth of 4 to 6 feet bgs (approximate elevation of 25 to 21 feet NAVD88);
- Underlying wood debris consisting of wood chips and logs that ranged from 7 to 10 feet thick (approximate elevation of 21 to 14 feet NAVD88); and
- Native silt and sand encountered beneath the wood debris layer (elevations deeper than an approximate elevation of 14 feet NAVD88).

Soil and soil mixed with wood debris with concentrations of cPAHs and metals were excavated to an approximate elevation of 21 feet NAVD88, and wood material was excavated to an approximate elevation of 14 feet NAVD88 to support redevelopment. cPAHs were detected at concentrations exceeding the MTCA Method A cleanup level in eight confirmation soil samples collected from the western and southern sidewalls at elevations ranging from 23 to 20 feet NAVD88 (Appendix E). cPAHs have been detected at concentrations exceeding the MTCA Method A cleanup level in samples collected in the east-adjacent alley and further to the west on the Block 38 West Property.

Groundwater was sampled from a network of four monitoring wells (MW-1 through MW-4), and GRO, DRO, ORO, kerosene, and BTEX were detected at concentrations less than MTCA cleanup levels in groundwater samples collected in January 1999 (GeoEngineers 1999). No groundwater analytical data were available for PAHs, including naphthalenes and cPAHs. During the 2008 remedial excavation, GRO and BTEX were detected at concentrations exceeding MTCA cleanup levels in groundwater samples collected from four dewatering wells (DN1, DN5, DN10, and DN14) on the northern shoring wall of the excavation (GeoEngineers 2008).

Ecology (2009) issued a property-specific No Further Action determination based upon the results of the 2008 remedial action conducted by GeoEngineers (2008) at the Interurban Exchange 2 Site. Ecology's letter also stated that COCs still affected areas beyond the Block 38 East Property boundary. The 2008 remedial excavation constituted an interim action for the Interurban Exchange 2 Site, and further remedial action is still necessary elsewhere at the Interurban Exchange 2 Site.

The Rosen Site comprises Lots 6 and 7 and is associated with a reported release of heating oil from a UST on Lot 6 (Figure 2). The reports documenting the decommissioning, investigation of the release, remedial excavation, and confirmation sampling were not available for review. The UST was decommissioned and permanently removed from the Rosen Site in 1994 (GeoEngineers 1999). No tabulated data are available for the UST decommissioning activities; however, former sample locations are shown on figures provided in Appendix E. DRO and ORO were detected at concentrations up to 250 and 390 mg/kg, respectively, in the UST excavation sidewall, which exceeded MTCA cleanup levels at that time but do not exceed current MTCA Method A cleanup

levels (GeoEngineers 1999). GeoEngineers (1999) stated that three borings (B-1 through B-3) and one monitoring well (MW-1A) were advanced to a depth of 15 feet bgs. DRO and ORO were detected at concentrations up to 340 and 580 mg/kg, respectively, in borings B-2 and B-3 advanced north of the former UST, which exceeded MTCA cleanup levels at that time but do not exceed current MTCA Method A cleanup levels. Groundwater was sampled from monitoring well MW-1A, north of the UST excavation, and GRO, DRO, ORO, kerosene, and BTEX were detected at concentrations less than MTCA cleanup levels in groundwater samples collected in January 1999 (GeoEngineers 1999). No groundwater analytical data were available for PAHs, including naphthalenes and cPAHs.

Farallon has not identified any evidence that Ecology issued a No Further Action determination for the former heating oil UST at the Rosen Site.

4.3 BLOCK 32 PROPERTY

Historical operations on the Block 32 Property resulted in the release of hazardous substances to soil and groundwater beneath the Block 32 Property and adjacent rights-of-way. Documented releases are associated with the former heating oil and gasoline USTs at the Ivars Commissary Site; a former heating oil UST and boiler room at 1001 Mercer Street; and a UST, abandoned railroad tracks, and an old dump site at 1021 Mercer Street (North Building City Place III Site) (Hart Crowser 2010). A summary of environmental investigations and remedial actions completed (Hart Crowser 2010) follows.

Petroleum- and lead-impacted soil was encountered across the Ivars Commissary Site associated with releases from former USTs, and creosote-treated pilings were encountered on the southwestern portion of the Ivars Commissary Site and associated with cPAHs-impacted soil. Petroleum-impacted soil associated with former USTs and the old dump site were confirmed at the North Building City Place III Site. Petroleum-impacted soil generally was limited to the upper 20 feet of soil and was removed during the remedial excavation conducted in conjunction with Block 32 Property redevelopment in 2008 and 2009.

PCE and TCE were detected at concentrations exceeding the MTCA cleanup level in soil at the base of the redevelopment excavation for the North Building City Place III Site and attributed to releases from the old dump site. The northeastern portion of the excavation was extended beyond planned depths to over-excavate CVOC-impacted soil to the extent practicable. PCE and TCE were detected at concentrations exceeding the MTCA cleanup level in three soil samples collected from the base of the over-excavated area.

A total of 83,600 tons of petroleum-, lead-, and CVOC-impacted soil were removed and treated and/or disposed of as part of the remedial action conducted during the redevelopment of the Ivars Commissary Site and North Building City Place III Site.

Groundwater was sampled from a network of monitoring wells and only vinyl chloride was detected at concentrations exceeding the MTCA cleanup level in a monitoring well along the north-central North Building City Place III Site boundary.

Ecology (2012) issued a Partial Sufficiency and Further Action letter for the North Building City Place III Site stating that the cleanup action performed met the MTCA cleanup levels for petroleum hydrocarbons in soil and groundwater, but that further action was necessary for PCE and vinyl chloride in soil and groundwater.

4.4 BMR-DEXTER CHLORINATED VOLATILE ORGANIC COMPOUND PLUME

The BMR-Dexter CVOC Plume comprises groundwater contaminated with CVOCs emanating from and down-gradient of the American Linen Supply Co. facility at 700 Dexter Avenue North in Seattle, Washington, currently owned by BMR-Dexter LLC (BMR-Dexter Property). The site encompassing contaminated soil and groundwater on and off property at 700 Dexter Avenue North, including the BMR-Dexter CVOC Plume, is referred to as the American Linen Supply Co. – Dexter Avenue Site. As described in the *Revised Agency Review Draft Remedial Investigation/Feasibility Study Work Plan, American Linen Supply Co – Dexter Avenue Site, 700 Dexter Avenue North, Seattle, Washington* dated April 15, 2019, prepared by PES Environmental, Inc. (2019) (draft RI/FS Work Plan), commercial laundry and dry cleaning businesses operated on the BMR- Dexter Property beginning in approximately 1946 and continued through the mid-1990s. Releases that occurred on the BMR-Dexter Property during the period of operation contaminated soil with CVOC[10] concentrations that exceed MTCA cleanup levels to depths greater than 100 feet bgs (0.0269 mg/kg PCE detected in saturated soil collected from the borehole for monitoring well MW-162 at a depth of 105 feet bgs) (draft RI/FS Work Plan Appendix C). The maximum reported concentration of PCE in soil on the BMR-Dexter Property was 16,400 mg/kg in the sample collected from boring B-236 at a depth of 42.3 feet bgs (draft RI/FS Work Plan Appendix C).

Groundwater at depths ranging from 3 feet bgs (monitoring well MW-149) to approximately 139 feet bgs (monitoring well MW-133) on the BMR-Dexter Property is contaminated with concentrations of CVOCs exceeding applicable cleanup levels (draft RI/FS Work Plan Figures 34 through 37; Tables 11 through 13)[11]. Under static conditions, contaminated groundwater[12] flows from the BMR-Dexter Property to the east and southeast with a downward vertical gradient over an approximate distance of 1,100 linear feet. The BMR-Dexter CVOC Plume is approximately 500 feet wide and approximately 100 feet thick at the BMR-Dexter Property and tapers to approximately 60 feet thick near the plume centerline at its eastern terminus. The aerial extent of the BMR-Dexter CVOC Plume that exceeds MTCA groundwater cleanup standards encompasses the majority of the BMR-Dexter Property and extends northeast past Valley Street onto Blocks 77 and 79, south across Roy Street onto Blocks 49 and 89[13], and east across Westlake Avenue North onto the western portion of the Block 37 Property. Maximum known residual CVOC

[10] The CVOCs include tetrachloroethene (PCE); trichloroethene (TCE); isomers of dichloroethene, primarily cis-1,2-dichloroethene (cDCE); and vinyl chloride.

[11] The maximum depth of groundwater contamination on the BMR-Dexter Property has not been identified by remedial investigation work done to date.

[12] Includes the Shallow and Intermediate Water-Bearing Zones and the Deep Outwash Aquifer.

[13] Block 77 is located at 900 Roy Street to 731 Westlake Avenue North, and Block 79 is located at 701 through 753 9th Avenue North. Block 49 is located at 801 Roy Street, and Block 89 is located at 1101 Dexter Avenue North.

concentrations in groundwater at the BMR-Dexter Property source areas are as follows (draft RI/FS Work Plan Figure 36):

- PCE at a concentration of 56,500 µg/l in Intermediate Water-Bearing Zone monitoring well MW-135;
- TCE at a concentration of 9,530 µg/l in Intermediate Water-Bearing Zone monitoring well MW-135;
- cDCE at a concentration of 58,400 µg/l in Intermediate Water-Bearing Zone monitoring well MW-152; and
- Vinyl chloride at a concentration of 9,600 µg/l in Intermediate Water-Bearing Zone monitoring well MW-152.

BMR-Dexter CVOC Plume impacts to the Intermediate Water-Bearing Zone and Deep Outwash Aquifer groundwater at concentrations less than MTCA cleanup levels extend as far south as the Block 38 West Property; however, the full extent of groundwater impacts at concentrations less than MTCA cleanup levels has not been identified.

cDCE and/or vinyl chloride associated with the BMR-Dexter CVOC Plume were detected at concentrations exceeding MTCA cleanup levels in Deep Outwash Aquifer groundwater samples collected from monitoring wells MW128 and FMW-131 on the Block 37 Property, north-adjacent to the Block 38 West Property, during groundwater monitoring events conducted between 2014 and 2018 (draft RI/FS Work Plan Figure 37; Table 14). cDCE was detected at concentrations less than the MTCA Method B cleanup level in Deep Outwash Aquifer groundwater samples collected from monitoring wells FMW-137 and FMW-138 during groundwater sampling events performed from November 2018 through July 2019 on the Block 38 West Property. Historical groundwater sampling of the Shallow-Water Bearing Zone on the Block 37 and Block 38 West Properties (including monitoring wells FMW-130 and FMW-132 through FMW-135) (Table 8) confirms that no shallow sources of CVOCs to groundwater are present either on, or in the vicinity of, the Block 38 West Property.

An investigation conducted on the southeastern portion of Block 37 in 2000 reported PCE[14] was detected at a concentration of 210 µg/l in a shallow reconnaissance groundwater sample collected from boring B-1 on Block 37, which also reported high concentrations of GRO. In 2019, Farallon sampled six existing shallow monitoring wells, advanced two additional borings proximate to boring B-1, and installed one new shallow monitoring well at the location of boring B-1. CVOCs, including PCE, trichloroethene, cis- and trans-1,2-dichloroethene, and vinyl chloride, were reported non-detect at the laboratory practical quantitation limit in all soil and shallow groundwater

[14] The reconnaissance groundwater sample was analyzed by EPA Method 8021B, an analytical method not typically used for analysis of CVOCs, and does not include mass spectrometry retention time measurements compared against known standards for target compounds.

samples analyzed from Block 37[15]. Farallon's subsurface investigation results indicate that there is no evidence of a shallow release of CVOCs to the surface at Block 37 that may constitute a source to groundwater or associated CVOC impacts to shallow groundwater. The analytical result reported in 2000 was more likely than not associated with analytical method interference and therefore was not representative of CVOC concentrations in shallow groundwater. Available Intermediate-Water Bearing Zone analytical data indicate that cDCE impacts to the Deep Outwash Aquifer on the Block 38 West Property are associated with the BMR-Dexter CVOC Plume.

Vertical migration of the BMR-Dexter CVOC Plume along the longitudinal axis of the plume is downward from the Shallow Water-Bearing Zone into the Intermediate Water-Bearing Zone proximate to monitoring well MW-158A. BMR-Dexter CVOC Plume groundwater continues from the Intermediate Water-Bearing Zone into the Deep Outwash Aquifer in the area approximately bracketed by monitoring wells MW-108 and MW-113. Analytical results for CVOCs in the Shallow and Intermediate Water-Bearing Zone groundwater east of 9th Avenue North (e.g., monitoring wells MW-45, FMW-130, FMW-143, and MW-214) indicate the BMR-Dexter CVOC Plume underlies Shallow and Intermediate Water-Bearing Zones groundwater where CVOCs were either reported non-detect at the laboratory practical quantitation limit or less than MTCA cleanup levels.

[15] Samples were analyzed by EPA Method 8260, which is approved for analysis of CVOCs and includes both gas-chromatography and mass spectrometry retention time measurements. CVOC results generated using EPA Method 8260 supersede those reported using EPA Method 8021B.

5.0 PRELIMINARY CONCEPTUAL SITE MODEL

A preliminary conceptual site model was developed for the Block 38 West Property based on the historical and recent information summarized in Sections 2 through 4 of this IAWP. The preliminary conceptual site model is dynamic and will be refined throughout the interim action process (and ultimately the RI) as additional information becomes available.

5.1 CONSTITUENTS OF POTENTIAL CONCERN

COPCs were selected based on the known historical uses of the Block 38 West Property and its vicinity, historical fill known to have been placed in this area, and the potential for releases of contaminants at concentrations exceeding MTCA cleanup levels. The COPCs for soil and groundwater at the Block 38 West Property are:

- GRO;
- DRO and ORO;
- BTEX;
- VOCs, including CVOCs;
- PAHs and other SVOCs, including cPAHs and naphthalenes; and
- Metals (i.e., arsenic, cadmium, chromium, mercury, and lead).

COCs retained for the interim action at the Block 38 West Property consist of those hazardous substances which were detected in soil or groundwater samples collected from the Block 38 West Property at concentrations exceeding MTCA Method A cleanup levels or other applicable MTCA cleanup criteria.

The COCs for the interim action for soil are:

- ORO;
- Total naphthalenes; and
- Total cPAHs TEC.

The COCs for the interim action for groundwater are:

- Benzene;
- DRO; and
- Total naphthalenes.

Chloroform was detected at a concentration exceeding the MTCA Method A cleanup level in a groundwater sample collected from monitoring well FMW-136 on August 30, 2018. Chloroform was detected in two other groundwater samples and in the water sample collected from the potable water supply, which was used during drilling (Farallon 2018). Chloroform is a byproduct of the

treatment of municipal water supplies and a common contaminant in analytical laboratories; therefore, chloroform was not retained as a COC for groundwater. Potable water was introduced to the subsurface during drilling to help control heaving sands and was subsequently recovered during well development. Potable water also can be introduced to the subsurface from leaking water supply and/or sewer lines.

5.2 MEDIA OF CONCERN

The confirmed media of concern at the Block 38 West Property, which will be targeted for the interim action cleanup, are soil, groundwater, and indoor air. Surface water (via stormwater discharge) will be retained as media of potential concern until sufficient information has been collected during the remedial action to demonstrate that these pathways are incomplete.

5.3 CLEANUP LEVELS

Cleanup levels may be established for an interim action if that action removes all soil and groundwater with COCs detected at concentrations exceeding MTCA cleanup levels at the points of compliance (WAC 173-340-355[2]). MTCA Method A and B cleanup levels for unrestricted land use are appropriate for the Block 38 West Property because there are a limited number of COCs in soil and groundwater and because of the proposed future land use as a commercial building. The MTCA Method A cleanup levels for the COCs in soil affecting the Block 38 West Property are as follows:

- ORO: 2,000 mg/kg;
- cPAHs: 0.1 mg/kg; and
- Total naphthalenes: 5 mg/kg.

The MTCA Method A cleanup levels for the COCs in groundwater currently affecting the Block 38 West Property are as follows:

- DRO: 500 µg/l;
- Benzene: 5 µg/l; and
- Total naphthalenes: 160 µg/l.

The Interim Action Report will compile analytical results from the interim action and historical data for the Block 38 West Property to further evaluate COPCs and the transport pathways for the Block 38 West Site.

5.4 CONFIRMED AND SUSPECTED SOURCE AREAS

The inferred sources of contamination at the Block 38 West Property are presented below.

5.4.1 Block 38 West Property

Based on environmental investigations completed to date by Farallon, no specific uses or historical features have been confirmed as a source of soil and groundwater contamination at the Block 38 West Property. Farallon understands that fill soil and wood debris associated with former lumber mill operations were placed on Block 38, including eastern portions of the Block 38 West Property. Accordingly, silt and underlying silty sand could potentially contain COCs associated with fill and wood debris (Farallon 2018). The planned interim action, which will be conducted in conjunction with the redevelopment of the Block 38 West Property, will remove the fill and wood debris from within the limits of the Block 38 West Property.

5.4.2 Adjacent Properties

Adjacent properties with documented and confirmed releases of COCs associated with historical operations described in Section 2.3 and Section 4 and that potentially have migrated to the Block 38 West Property via air deposition, soil, surface water runoff, and/or groundwater transport include the following:

- Block 38 East Property northern and central portions (Interurban Exchange 2 Site). Releases of petroleum hydrocarbons, metals (lead and cadmium), and PAHs, including naphthalenes and cPAHs, were confirmed on the Interurban Exchange 2 Site. Farallon understands that an interim action was conducted at the Interurban Exchange 2 Site in conjunction with redevelopment of the northern and central portions of the Block 38 East Property in 2008, which resulted in the removal of hazardous substances from soil and groundwater at Lots 1 through 5. Based on the results of the interim action confirmation soil sampling, GRO, DRO, and ORO were detected at concentrations exceeding MTCA Method A cleanup levels in soil samples collected from the northern sidewall of the excavation on Lot 1, and cPAHs were detected at concentrations exceeding the MTCA Method A cleanup level on the western and southern sidewalls of the excavation on Lots 3 through 5 (Appendix E). GRO and BTEX were detected at concentrations exceeding MTCA cleanup levels in groundwater samples collected from dewatering wells on the northern shoring wall during the remedial excavation. No information regarding additional groundwater monitoring on or off the Interurban Exchange 2 Site post-interim action was available. The interim action was limited to the Interurban Exchange 2 Site, and impacted soil remained in the adjacent rights-of-way to the north and west, and potentially Lot 6 on the southern portion of the Block 38 East Property.
- Block 38 East Property southern portion (Rosen Site). A release from a heating oil UST on Lot 6 of the Rosen Site was confirmed during the permanent decommissioning and removal of the UST in 1994 (GeoEngineers 1999). Residual DRO and ORO were detected in soil samples collected north of the former heating oil UST excavation area at concentrations exceeding MTCA cleanup levels established in 1994 but less than current MTCA Method A cleanup levels. The volume of soil associated with the former heating oil UST release that was excavated and disposed of off the Rosen Site was not documented. Petroleum hydrocarbons were reported as non-detect in a groundwater sample collected from a monitoring well north of the former heating oil UST excavation area. Based on the

information available, it is not clear whether the monitoring well was in a down-gradient position from the UST excavation area.

- Block 37 Property. The former Westlake 76 Station facility has GRO, BTEX, DRO, ORO, kerosene, naphthalene, methyl tert-butyl ether, cPAHs, and lead in soil and/or groundwater at concentrations exceeding the applicable MTCA cleanup levels, with confirmed impacts to the adjacent Mercer Street and Westlake Avenue North rights-of-way proximate to the Block 38 West Property. The extent of these hazardous substances has not been sufficiently defined in soil and groundwater, and it is probable that soil and groundwater quality at the Block 38 West Property has been affected by releases from the Block 37 Property. Ecology (2018) determined that further remedial action was necessary at the Westlake 76 Station Site.
- Block 32 Property (Ivars Commissary Site). The Ivars Commissary Site has confirmed releases of GRO, DRO, benzene, and other petroleum compounds to soil and confirmed releases of GRO and suspected releases of DRO, benzene, and other petroleum compounds to groundwater at concentrations exceeding MTCA cleanup levels. The Ivars Commissary Site was redeveloped in 2009 to 2010 with a five-story commercial building with two levels of below grade parking.
- Block 32 Property (North Building City Place III Site). The North Building City Place III Site has confirmed releases of GRO, DRO, ORO, benzene, mineral spirits, PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, vinyl chloride, and methylene chloride in soil at concentrations exceeding cleanup levels, and GRO, mineral spirits, PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, and vinyl chloride in groundwater at concentrations exceeding cleanup levels. Only vinyl chloride is detected at a concentration exceeding the MTCA cleanup level at the North Building City Place III Site boundary. Remedial action was conducted in conjunction with redevelopment of the property with a five-story commercial building with two levels of below grade parking in 2009 to 2010 and resulted in the removal of petroleum-contaminated soil and CVOC-contaminated soil to the extent practicable. Ecology (2012) issued a Partial Sufficiency and Further Action letter for the North Building City Place III Site stating that the cleanup action performed met the MTCA cleanup levels for petroleum hydrocarbons in soil and groundwater, but that further action was necessary for PCE and vinyl chloride in soil and groundwater. Information provided in the Ecology Letter indicated a north to northwesterly groundwater flow direction, cross-gradient from the Block 38 West Property.
- BMR-Dexter Property. The BMR-Dexter Property has confirmed releases of CVOCs to soil and groundwater at concentrations exceeding MTCA cleanup levels. Confirmed impacts to groundwater associated with the BMR-Dexter CVOC Plume extend northeast past Valley Street, south across Roy Street, and east across Westlake Avenue North onto the western portion of the Block 37 Property. The extents of CVOC impacts to soil and groundwater have not been sufficiently defined for the BMR-Dexter Property, including the BMR-Dexter CVOC Plume. Groundwater quality at the Block 38 West Property is affected by the BMR-Dexter CVOC Plume.

5.5 NATURE AND EXTENT OF CONTAMINATION

Based on the results of the subsurface investigations performed by Farallon from 2014 through 2019, the nature and extent of contamination at the Block 38 West Property is shown on Figure 6 for soil and on Figure 8 for groundwater. Figures 4 and 5 show the nature and extent of contamination at the Block 38 West Property in vertical cross sections. Tables 1 through 4 and 6 through 8 summarize analytical results for COPCs detected in soil and groundwater samples collected at the Block 38 West Property and the east-adjacent alley.

5.5.1 Soil

COCs detected in soil at concentrations exceeding MTCA Method A cleanup levels at the Block 38 West Property are bounded vertically by soil samples collected from boring FB-1 at a depth of 15 feet bgs, boring FB-2 at a depth of 25 feet bgs, boring FB-4 at a depth of 15 feet bgs, boring FB-6 at a depth of 10 feet bgs, and the boring for monitoring well FMW-133 at a depth of 10 feet bgs. An estimated volume of 28,000 tons of contaminated soil will be removed during the planned interim action.

COCs detected in soil at concentrations exceeding MTCA Method cleanup levels at the Block 38 West Property are generally bounded laterally to the west by soil samples collected from the boring for monitoring well FMW-135 and from borings FB-3 and FB-5, and generally bounded laterally to the south by soil samples collected from the borings for monitoring wells FMW-134 and FMW-136 (Figure 6). The lateral extent of COCs detected in soil at concentrations exceeding MTCA cleanup levels is bounded to the east (with the source of such contamination east of the Block 38 West Property from releases at adjacent properties) with confirmation soil samples from the 2008 remedial excavation conducted at the Interurban Exchange 2 Site (Appendix E). The lateral extent of COCs detected in soil at concentrations exceeding MTCA cleanup levels is not bounded to the north, as soil samples could not be collected during the subsurface investigations because of access limitations. During redevelopment of the Block 38 West Property, soil samples will be collected to refine the lateral distribution of shallow soil contamination encountered at the Block 38 West Property.

5.5.2 Groundwater

The lateral extent of COCs in the Shallow Water-Bearing Zone at concentrations exceeding MTCA Method A cleanup levels is not bounded off the Block 38 West Property to the west, south, and east (Figure 8). Monitoring wells were not installed outside the Block 38 West Property during the subsurface investigations performed by Farallon. No data have been generated to date that suggest soil or groundwater contamination at the Block 38 West Property extends to the Intermediate-Water Bearing Zone. The nature and extent of groundwater contamination will be defined as part of the RI for the Block 38 West Site.

5.6 CONTAMINANT FATE AND TRANSPORT

Releases from the east-adjacent Interurban Exchange 2 Site and former heating oil UST at the Rosen Site on the Block 38 East Property, and potentially from the north-adjacent Westlake 76

Station Site on the Block 37 Property, have affected soil and groundwater on portions of the Block 38 West Property. Advective transport of petroleum hydrocarbons (including GRO, benzene, DRO, and ORO) and naphthalenes with groundwater has occurred from these source areas proximate to the northern Block 38 West Property boundary.

In addition, historical operations at the Block 38 East Property have resulted in impacts to shallow soil affected by GRO, DRO, ORO, total naphthalenes, and total cPAH TEC. It is possible that historical regrading activities of such soil, air and dust deposition, and/or surface water sheet flow at the Block 38 East Property could have affected soil quality on the Block 38 West Property and the east-adjacent alley.

6.0 PERMITS AND OTHER REGULATORY REQUIREMENTS

This section summarizes applicable local, state, and federal laws pertaining to the interim action, and the permitting and substantive requirements applicable to the interim action.

6.1 APPLICABLE LOCAL, STATE, AND FEDERAL LAWS

Pursuant to WAC 173-340-710, the interim action will comply with applicable local, state, and federal laws, and include applicable regulatory guidelines. The cleanup standards, waste disposal criteria, and documentation standards are:

- MTCA (WAC 173-340);
- The Water Quality Standards for Groundwaters of the State of Washington (WAC 173-200);
- The Hazardous Waste Management Act (Chapter 70.105 of the Revised Code of Washington [RCW 70.105]);
- Washington State Solid Waste Management Laws and Regulations (RCW 70.95 and WAC 173-351 and 173-304);
- Dangerous Waste Regulations (WAC 173-303);
- Accreditation of Environmental Laboratories (WAC 173-50);
- The Occupational Safety and Health Act (Part 1910 of Title 29 of the Code of Federal Regulations [29 CFR 1910] and WAC 296-62);
- The State Environmental Policy Act (RCW 43.21 and WAC 197-11 and 173-802);
- The State National Pollutant Discharge Elimination System Program (WAC 173-220);
- The State Waste Discharge General Permit Program (WAC 173-226);
- Maximum Contaminant Levels, National Primary Drinking Water Regulations (WAC 246-290-310 and 46 CFR 141);
- Safety Standards for Construction Work (WAC 296-155);
- Minimum Standards for Construction and Maintenance of Wells (WAC 173-160); and
- Applicable local permits and ordinances indicated by the City of Seattle/City of Tukwila Municipal Code.

6.2 PERMITTING AND SUBSTANTIVE REQUIREMENTS

The following sections describe the permitting and substantive requirements applicable to the interim action.

6.2.1 State Environmental Policy Act

The State Environmental Policy Act (SEPA) (WAC 197-11) and the SEPA procedures (WAC 173-802) provide the framework for state agencies to evaluate the environmental consequences of a project and ensure appropriate measures are taken to mitigate environmental impacts. SEPA is applicable to the redevelopment project. City Investors prepared and submitted a SEPA Checklist for the redevelopment project, which included an Environmental Media Management Plan (EMMP). Elements of the EMMP are incorporated into this IAWP. The City of Seattle has determined that the project will not have a significant adverse impact on the environment.

6.2.2 City of Seattle Master Use Permit

City Investors has obtained a Master Use Permit from the City of Seattle for the redevelopment project.

6.2.3 City of Seattle Grading and Shoring Permits

City Investors has obtained a grading permit from the City of Seattle. Substantive requirements of a grading permit include erosion control, which is addressed by implementation of best management practices in accordance with a project-specific temporary erosion and sediment control plan.

6.2.4 Construction Stormwater General Permit

Construction-generated dewatering water or stormwater will need to comply with the requirements of a National Pollution Discharge Elimination System Construction Stormwater General Permit and an Administrative Order issued by the Ecology Water Quality Program. The Administrative Order established Indicator Levels for the project based on known contaminants for compliance with Water Quality Standards for the Surface Water of the State of Washington (WAC 173-200). The Administrative Order defines the conditions and actions necessary to comply with the Construction Stormwater General Permit.

6.2.5 Historical and Cultural Resource Protection

As required by state law, appropriate measures will be taken to evaluate the potential presence of historical, archaeological, or cultural resources. City Investors prepared a Cultural Resources Assessment, which was submitted to the Washington State Department of Archaeology and Historic Preservation. The Washington State Department of Archaeology and Historic Preservation concurred with the findings of the Cultural Resources Assessment requiring archeological monitoring during excavations with potential to intersect native soil. In addition, City Investors will prepare a Monitoring and Inadvertent Discovery Plan for the project.

7.0 INTERIM ACTION IMPLEMENTATION

Investigations conducted at the Block 38 West Property have identified COCs in soil and groundwater at concentrations exceeding applicable MTCA cleanup levels. The interim action will eliminate and/or reduce the threat to human health and the environment by removal of impacted soil, the Shallow Water-Bearing Zone, and the upper portion of the Intermediate Water-Bearing Zone from within the property boundary during the Block 38 West Property redevelopment project. Components of the interim action include excavation of impacted soil to eliminate source material, construction dewatering and treatment of contaminated groundwater, construction of the exterior walls and floor slab for the underground portion of the Building using waterproof concrete, and installation of a vapor barrier.

Redevelopment of the Block 38 West Property is scheduled to begin in mid- to late October 2019 and will entail construction of the Building. The planned finish floor elevation of the lowest level of parking is -3.25 feet NAVD88. Construction of the Building will require mass excavation across the entirety of the Block 38 West Property. The excavation sidewalls will be retained using soldier pile and lagging shoring methods in conjunction with four rows of tiebacks. The bottom of the majority of the foundation will be at an approximate elevation of -8 feet NAVD88, or approximately 30 to 35 feet below existing grade, throughout the Block 38 West Property. Excavation for elevator cores likely will extend below the mass excavation subgrade.

7.1 INTERIM ACTION OBJECTIVES

The objective of the interim action is to eliminate and/or reduce the threat to human health and the environment at the Block 38 West Property. Impacted soil will be transported off the Block 38 West Property for disposal at permitted treatment, storage, and disposal facilities. The interim action will remove the shallow water-bearing zone and the top of the intermediate water-bearing zone beneath the Block 38 West Property. The extraction and treatment of contaminated groundwater also will prevent impacted groundwater from entering the Block 38 West Property and is expected to remove contaminant mass from groundwater with dissolved hazardous substances withdrawn by permitted construction dewatering. The new building foundation design includes the installation of a vapor barrier to mitigate the potential vapor intrusion exposure pathway. The interim action for the Block 38 West Property will be protective of both human health and the environment.

7.2 PROPERTY PREPARATION AND MOBILIZATION

Preparation for implementation of the interim action and for construction of the Building includes installation of security and erosion control measures per permitted construction plans. Work related to re-routing underground utilities out of the construction area or decommissioning of utilities will be completed prior to excavation activities. Current construction plans specify that a system of soldier piles and lagging will be installed around the outside perimeter of the Block 38 West Property concurrent with implementation of the interim action. As detailed in the 2019 Ecology Letter, hazardous building materials, including asbestos, lead-based paint, and polychlorinated biphenyls

associated with the building structures have been properly abated, handled, and disposed of by a licensed contractor during the demolition of the Block 38 West Property buildings.

Monitoring wells within the footprint of the redevelopment area, including monitoring wells FMW-130 and FMW-132 through FMW-136, will be decommissioned by a licensed well driller in accordance with the Washington State Water Well Construction Act (RCW 18.104 and WAC 173-160-460) (Table 9). Following well decommissioning, the required documentation will be submitted to Ecology. Excavation activities will not begin until the monitoring wells have been decommissioned.

Monitoring wells FMW-137 and FMW-138, located just off the northeastern and southeastern corners of the Block 38 West Property (i.e., at the northern and southern ends of the east-adjacent alley) (Figure 2), will remain in place for future monitoring and sampling adjacent to the Block 38 West Property.

7.3 INSTALLATION OF DEWATERING WELLS

Prior to the construction excavation, 18 dewatering wells (DW-1 through DW-18) will be installed along the perimeter of the Block 38 West Property (Appendix F Figure 2). The dewatering wells will be installed by Malcom Drilling of Kent, Washington. Based on information provided by Middour Consulting LLC (2018), the dewatering wells will be installed to an elevation of -30 feet NAVD88 with a screen interval set at elevation ranging from 10 to 30 feet NAVD88 (Appendix F). Farallon will collect soil samples in 5-foot intervals during the drilling of select dewatering wells and perform lithologic logging and field screening for indications of contamination. The soil sample collection methodology will be determined based on the drilling methods implemented by Malcolm Drilling. Analytical data collected from the dewatering well installation will be used to refine the estimated extent of impacted soil at the Block 38 West Property.

7.4 CONSTRUCTION DEWATERING AND TREATMENT

To facilitate redevelopment of the Block 38 West Property, construction dewatering will be required.

Middour Consulting LLC (2018) prepared a groundwater control plan and specifications for a dewatering system to draw groundwater below the maximum excavation depth required for the redevelopment design (Appendix F). The groundwater control plan design includes eighteen 12-inch-diameter dewatering wells installed in 30- to 36-inch-diameter boreholes drilled around the perimeter of the Block 38 West Property and screened from an elevation ranging from 10 to 30 feet NAVD88 to extract groundwater at a combined rate of about 800 gallons per minute after approximately 1 week of pumping, tapering to approximately 540 gallons per minute after a period of approximately 1 month of operation. Each well will have a pump capable of initially discharging up to 100 gallons per minute under 70 feet of total dynamic head. The dewatering system will achieve drawdown to approximately 2 feet below final subgrade to an elevation of -10 feet NAVD88 across the Block 38 West Property for a period of up to approximately 10 months. The dewatering system will be operated continuously until the excavation is complete, the exterior walls and the floor slab are constructed with waterproof concrete below the water table, a vapor

barrier has been installed above the water table, and sufficient structural weight of the Building or other measures to secure the Building are in place to counteract buoyancy.

Groundwater initially collected during the construction dewatering has the potential to be impacted by COCs for groundwater at the Block 38 West Site, and later by CVOCs[16] primarily associated with the up-gradient BMR-Dexter CVOC Plume as described in Section 4.3. The BMR-Dexter CVOC Plume will be drawn toward dewatering wells on the northern and western portions of the Block 38 West Property, but will prevent migration of the plume, already present at the Block 38 West Property, from moving beyond the Block 38 West Property. Also, low concentrations of vinyl chloride may be drawn during operation of the construction dewatering system from impacted shallow groundwater at the Block 32 Property toward dewatering wells along the eastern boundary of the Block 38 West Property.

A water treatment system constructed per plans and specifications provided by WaterTectonics of Everett, Washington is present on the Block 37 Property and will be connected to the dewatering wells via headers and conveyance lines under Mercer Street. The construction dewatering system has three separate water conveyance lines: a west conveyance line associated with dewatering wells on the western and northern Block 38 West Property boundaries; an east conveyance line associated with dewatering wells on the eastern and southern Block 38 West Property boundaries; and a stormwater conveyance line. The water treatment system comprises baffled sedimentation tanks, an air stripper and associated vapor-phase granular activated carbon vessels, liquid-phase granular activated carbon vessels, and contingency measures for pH balancing to treat the groundwater extracted from the Block 38 West Property.

The water treatment system will treat groundwater extracted from the Shallow and Intermediate Water-Bearing Zones and the Deep Outwash Aquifer, and any stormwater generated during construction activities, sufficient to achieve permit requirements prior to discharge to Lake Union or, alternatively, to meet criteria for discharge to the municipal sanitary sewer.

7.5 SUPPLEMENTAL SOIL CHARACTERIZATION

Supplemental characterization of soil will include collection of soil samples from test pits advanced after building demolition, installation of dewatering wells, and advancement of borings or test pits in the east-adjacent alley. Results from the supplemental characterization activities will be used to define the nature and extent of COC-contaminated soil and to support profiling for soil disposal[17]. Soil samples collected may serve the purpose of performance or confirmation soil

[16] Although the BMR-Dexter CVOC Plume is composed of PCE, TCE, cDCE, and vinyl chloride, the distal end of this plume is primarily cDCE and vinyl chloride. It is unlikely that detectable concentrations of PCE or TCE will be found in the construction dewatering system influent due to the current distribution of these compounds, higher retardation (slower rate of transport in groundwater), and biotic or abiotic transformation during migration in the Deep Outwash Aquifer. Nevertheless, City Investors has requested, and Ecology has established discharge standards for all of these compounds in connection with the treatment and discharge of groundwater impacted by the BMR-Dexter CVOC Plume.

[17] Additional investigation regarding the nature and extent of contamination will be performed as part of an RI conducted pursuant to an Agreed Order with Ecology.

sampling detailed in Section 8.0, Compliance Monitoring. Collection of soil samples from test pits for laboratory analysis will be conducted by Farallon using equipment and an operator provided by the excavation subcontractor, Hos Bros. Construction of Woodinville, Washington.

7.6 EXCAVATION OF CONTAMINATED SOIL

Based on previous investigations, impacted soil (Impacted Soil, defined below) extends to an approximate elevation of -5 feet NAVD88 for the northern half of the Block 38 West Property and to 0 feet NAVD88 across the majority of the Block 38 West Property. Impacted Soil is defined as soil with detectable concentrations of COCs and COPCs, and includes contaminated soil with COCs detected at concentrations exceeding MTCA Method A cleanup levels (Contaminated Soil). Based on data collected to date, approximately 76,000 tons of Impacted Soil is estimated to be present at the Block 38 West Property, of which less than 10 percent is estimated to be Contaminated Soil (Appendix G; Table 10).

Impacted soil, including the Contaminated Soil removed during construction of the Building, will require special handling and disposal measures beyond those used for handling and disposing of clean soil. Contaminated Soil will be excavated, segregated, stored temporarily, and disposed of off the Block 38 West Property in accordance with Washington State Solid Waste Management Laws and Regulations (RCW 70.95 and WAC 173-351 and 173-304) and the Guidance for Remediation of Petroleum Contaminated Sites revised June 2016, prepared by Ecology (2016) (Ecology Guidance). Management of Impacted Soil, including Contaminated Soil, will be conducted concurrently with other construction activities such as shoring, dewatering, and excavation of Category 1 soil or clean soil that meets criteria for reuse as clean fill or acceptance criteria for disposal at an off-Property facility. Construction excavation will result in elimination of Impacted Soil, the Shallow Water-Bearing Zone, and the upper portion of the Intermediate Water-Bearing Zone within the Block 38 West Property boundary.

Appendix E includes Figures 1 through 7 that show the estimated extent of Impacted Soil at the Block 38 West Property and provide lift maps in 30-foot-square grid cells and 5-foot-thick lifts (Farallon 2018). The estimated extent of Impacted Soil shown on the lift maps is based on results from field observations and laboratory analytical results from the previous investigations. The lift maps will be updated continually with field-screening observations and soil laboratory analytical data from performance soil samples collected during the interim action.

Excavated soil that will be transported off the Block 38 West Property for reuse or disposal will be segregated by category according to Ecology Guidance and/or acceptance criteria of the disposal facility. Four general categories of soil are anticipated to be managed during construction excavation and implementation of the interim action, and are described below in Section 7.7, Off-Property Disposal of Contaminated Soil.

Farallon will observe soil cuttings during the installation of select shoring piles and dewatering wells to depths where Impacted Soil or Contaminated Soil are no longer anticipated, as reflected on the lift maps. Farallon will conduct field screening, following the procedures described in the Sampling and Analysis Plan provided in Appendix D of the EMMP (Farallon 2018), in areas of

confirmed or suspected Impacted Soil to classify the soil as Category 2 or Category 3 Soil. Field screening may consist of visual observation for evidence of soil staining or discoloration, and/or notation of noticeable odors, and may also include use of field instrumentation such as a photoionization detector for detection of volatile vapors. Farallon will conduct performance and confirmation soil sampling per Section 8.0, Compliance Soil Monitoring, and the Sampling and Analysis Plan. Farallon will consult with Hos Bros. Construction and Malcolm Drilling as needed regarding management of Impacted Soil based on soil categorization.

If direct loading of excavated soil into trucks is not feasible, temporary stockpiles will be maintained by Hos Bros. Construction as needed to segregate soil by disposal category until it can be loaded into trucks. Hos Bros. Construction will use discretion on best means and methods to construct and maintain stockpiles and to prevent intermixing of soil segregated by disposal category to the maximum extent practicable given the constraints of the construction project. Hos Bros. Construction may consider use of physical barriers such as traffic plates beneath stockpiles to protect clean underlying soil, and/or concrete blocks between stockpiles to prevent commingling of segregated soil. Plastic sheeting should be placed on top of inactive stockpiles to prevent wind or runoff transport of Impacted Soil, and to prevent stockpile cross-contamination pending load-out. Plastic sheeting is not suitable for use beneath stockpiles of Impacted Soil placed on clean soil.

Farallon will assist City Investors with manifesting trucks loaded with Impacted Soil, and tracking quantities of soil delivered to disposal facilities. Documentation of soil disposal will be maintained in the project file and used for purposes of regulatory closure under MTCA.

7.7 OFF-PROPERTY DISPOSAL OF CONTAMINATED SOIL

Impacted Soil, including Contaminated Soil, will be exported and disposed of off the Block 38 West Property. The categories of soil that will be generated during the construction and the corresponding disposal facility are described below.

- **Category 1 Soil** has no olfactory, visual, or other evidence of contamination (e.g., odor, staining, sheen, elevated photoionization detector readings) and meets criteria for reuse as clean fill or acceptance criteria for disposal at the 5 Mile disposal facility in Snoqualmie, Washington or other disposal facilities identified and used by Hos Bros. Construction. Category 1 Soil does not include Impacted Soil and is not a threat to human health or the environment as indicated by Ecology Guidance, and can be reused where allowed under other regulations. Category 1 Soil will be segregated from Impacted Soil to the maximum extent practicable and transported off the Block 38 West Property to the selected destination. Estimated Category 1 Soil areas are indicated by blue-green hatching on the lift maps (Appendix G).
- **Category 2 Soil** contains COCs or other constituents at concentrations meeting acceptance criteria for disposal at the Cadman, Inc. disposal facility in Everett, Washington. Category 2 Soil includes soil that may not contain detected concentrations of petroleum hydrocarbons, but exhibits olfactory, visual, or other evidence of potential contamination. Category 2 Soil includes Impacted Soil (but not Contaminated Soil) containing COCs and other constituents at concentrations meeting acceptance criteria for the Category 2 Soil

disposal facility, and not meeting the criteria for handling as Category 1 Soil. Estimated Category 2 Soil areas are indicated by yellow shading on the lift maps (Appendix G).

- **Category 3 Soil** is excavated Contaminated Soil containing concentrations of COCs that exceed MTCA cleanup levels and Impacted Soil containing COCs or other COPCs at concentrations not meeting acceptance criteria for the Category 2 Soil disposal facility, but meeting acceptance criteria at the following disposal facilities:
    - Cadman, Inc disposal facility;
    - Republic Services Regional Subtitle D Landfill in Roosevelt, Washington; and
    - Waste Management Columbia Ridge Subtitle D Landfill in Arlington, Oregon.

  Estimated Category 3 Soil areas are indicated by orange shading on the lift maps (Appendix G).

- **Category 3+ Soil** is excavated Contaminated Soil with concentrations of COCs exceeding the Cadman, Inc. disposal facility criteria and Contaminated or Impacted Soil containing greater than 15 percent organic material not meeting acceptance criteria for disposal at the Cadman, Inc. disposal facility, but meeting acceptance criteria for disposal at the following Category 3+ disposal facilities:
    - Republic Services Regional Subtitle D Landfill; and
    - Waste Management Columbia Ridge Subtitle D Landfill.

  Estimated Category 3+ Soil areas are indicated by red shading on the lift maps (Appendix G).

The actual volumes and location of each category of contaminated soil may vary substantially from the estimates and figures presented in this IAWP based upon actual subsurface conditions encountered during the remedial excavation.

7.8 WATERPROOF CONCRETE AND VAPOR BARRIER INSTALLATION

Current construction plans specify that the exterior walls of the underground portion of the Building will be constructed along the boundaries of the Block 38 West Property and the floor slab will be constructed at an elevation of -3.25 feet NAVD88. The exterior walls and floor slab of the underground portion of the Building will be constructed of waterproof concrete below the water table, and a vapor barrier will be installed above the water table. No provisions for drainage are planned or needed. The exterior walls and floor slab of the underground portion of the Building and the additional protective measures of the waterproof concrete and vapor barrier will prevent future migration of and potential exposure to contaminated groundwater and associated soil vapor, if present, from properties adjacent to or in the vicinity of the Block 38 West Property.

8.0 COMPLIANCE MONITORING

Three types of compliance monitoring have been identified for remedial actions performed under MTCA (WAC 173-340-410): protection monitoring, performance monitoring, and confirmational monitoring. A paraphrased purpose for each is presented below (WAC 173-340-410[1]):

- **Protection Monitoring** confirms whether human health and the environment are adequately protected during the interim action;
- **Performance Monitoring** confirms that the interim action has attained the remediation levels at the points of compliance; and
- **Confirmational Monitoring** confirms the long-term effectiveness of the interim action once remediation levels or other performance standards have been attained.

8.1 PROTECTION MONITORING

A Health and Safety Plan will be prepared for the interim action that meets the minimum requirements for such a plan identified in federal (29 CFR 1910.120 and 1926) and state (WAC 173-340-810 and 296) regulations. The Health and Safety Plan identifies all known physical, chemical, and biological hazards; hazard monitoring protocols; and administrative and engineering controls required to mitigate the identified hazards (Appendix H).

Construction workers encountering Impacted Soil will have completed 40-Hour Hazardous Waste Operations and Emergency Response training in accordance with 29 CFR 1910.120 and will have completed Annual 8-Hour Hazardous Waste Operations and Emergency Response refresher training, as needed.

8.2 SOIL PERFORMANCE MONITORING

Performance monitoring provides soil analytical results to refine, classify, and/or identify the presence of COCs and/or COPCs exceeding MTCA Method A or B cleanup levels in an excavation area with confirmation or evidence of potentially contaminated soil. The soil analytical results define whether COCs are present at concentrations exceeding MTCA Method A or B cleanup levels and, if contamination is present, the lateral and vertical extent of excavation requiring off-site disposal to achieve the cleanup levels established for COCs under MTCA to the extent practicable.

Performance monitoring will involve collecting in-situ samples for laboratory analysis to quantify concentrations of COCs in soil. Discrete soil samples will be collected from the excavation areas to serve as confirmation samples where cleanup levels are attained.

Soil samples collected for performance monitoring, for confirmation monitoring, and to support soil profiling and disposal will be analyzed for the COCs identified Section 5.1, Constituents of

Potential Concern. Samples of confirmed or potentially contaminated soil may be analyzed by one or more of the following:

- ORO by Northwest Method NWTPH-Dx; and/or
- PAHs, including naphthalenes and cPAHs, by EPA Method 8270D.

The performance and confirmation soil samples will be analyzed on an appropriate turnaround schedule to facilitate soil cleanup activities during construction. The procedures for soil sample collection (e.g., frequency, location) and sample handling are described in the following sections.

8.2.1 Soil Sampling Frequency

The frequency of performance soil sampling will depend on the existing analytical data set and qualitative indications of potentially contaminated soil observed by the Farallon field personnel using the field-screening methods described in Section 7.6, Excavation of Contaminated Soil. The frequency of performance soil sampling may be higher near the lateral and vertical limits of an excavation area to provide sufficient samples for confirmational monitoring.

8.2.2 Soil Sample Locations

The locations of the performance soil samples will depend on the existing analytical data set, excavation progress each day, and the configuration of the final excavation limits. The soil sample locations will be selected at the discretion of the Farallon field personnel based on the grid excavation areas and field-screening observations of soil conditions.

8.2.3 Soil Sample Identification

The soil samples collected for performance monitoring from each sample location will be assigned a unique sample identifier and number. The sample identification will be placed on the sample label, the Field Report form, Sample Summary forms, and the Chain of Custody form.

8.2.4 Soil Sample Collection and Handling Procedures

The performance soil samples will be collected and handled following the procedures listed below.

- Soil samples will be collected directly from in-situ soil if the target sample interval is less than 4 feet below the depth of the surrounding land surface at the time of sampling (e.g., from a test pit less than 4 feet deep at the base of the mass excavation area), or from the center of the track hoe bucket if the target sample interval is from a test pit greater than 4 feet deep or if potentially hazardous conditions exist due to physical hazards or vapors. The samples will be collected using either stainless steel or plastic sampling tools. Non-dedicated sampling equipment, with the exception of the track hoe bucket, will be decontaminated between uses as appropriate.
- Information for each excavation and during each sampling event will be logged, including at a minimum: sample depth, Unified Soil Classification System description, soil moisture, physical indications of potential COCs (visual observations and olfactory indications), and field-screening results obtained using a photoionization detector and/or sheen testing.

- Soil samples will be transferred immediately into laboratory-supplied sample containers. Care will be taken to not handle the seal or inside cap of the container when the sample is placed into the containers, and the seals/caps will be secured.
- The sample container will be labeled with the medium (soil), date, time sampled, sample identification and number, project name, project number, and sampler's initials.
- The sample will be logged on a Chain of Custody form and placed into a chilled cooler for transport to the laboratory under chain-of-custody protocols.
- Disposable sampling and health and safety supplies and equipment will be discarded in an appropriate waste dumpster at the Site.
- The excavation and sample locations will be identified relative to a landmark at the Block 38 West Property using a measuring tape or other measuring device, and the soil sample location will be plotted on a scaled site plan. Digital photographs will be taken of each excavation when the final limits of the excavation have been defined.

8.3 GROUNDWATER PERFORMANCE MONITORING

The Shallow-Water Bearing Zone and the upper portion of the Intermediate-Water Bearing Zone will be removed from the Block 38 West Property as part of the planned redevelopment project. Groundwater conditions post-interim action will be addressed in the draft RI/FS Work Plan and evaluated during the Block 38 West Site-wide RI in accordance with the Agreed Order.

8.4 DEEP OUTWASH AQUIFER GROUNDWATER PERFORMANCE MONITORING

Performance groundwater monitoring will be conducted during construction dewatering activities at, and in the vicinity of, the Block 38 West Property for the Deep Outwash Aquifer. The purpose of the performance groundwater monitoring will be to monitor concentrations of CVOCs in groundwater associated with the BMR-Dexter CVOC Plume. The data collected during the groundwater monitoring program will be used to assess treatment options for extracted groundwater and make any necessary modifications to the dewatering treatment system. Groundwater monitoring data will also document the anticipated reduction in CVOC mass in the southeastern portion of the BMR-Dexter CVOC Plume area.

Groundwater samples collected for performance monitoring will be analyzed for CVOCs by EPA Method 8260C. The monitoring wells to be sampled and the frequency of the sampling events are provided in Appendix I.

The procedures for groundwater sample collection (e.g., frequency, location) and sample handling are described in the following sections.

8.4.1 Groundwater Sampling Locations and Frequency

The monitoring and/or interim action dewatering wells to be included for the performance groundwater monitoring events and the schedule for those events are as follows:

- Perform a groundwater sampling event for monitoring wells FMW-129, FMW-131, FMW-137, FMW-138, FMW-140, FMW-141, FMW-142, FMW-143, and GEI-2 in October 2019 prior to dewatering scheduled to commence later that same month;
- Perform monthly groundwater sampling events from October 2019 to July 2020 at multiple monitoring wells, interim action interception wells, and construction dewatering wells as detailed in Appendix I; and
- Perform a final post-dewatering groundwater monitoring event in August 2020.

8.4.2 Groundwater Sample Identification

The groundwater samples collected for performance monitoring from each monitoring well, interim action interception well, and construction dewatering well will be assigned a unique sample identifier and number. The sample identification will be placed on the sample label, the Field Report form, Sample Summary forms, and the Chain of Custody form.

8.4.3 Groundwater Sample Collection and Handling Procedures

The monitoring wells and interim action interception wells will be sampled in general accordance with protocols detailed in the *Low Stress (Low Flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells* revised September 19, 2017, prepared by EPA (1996), as follows:

- The well cap will be removed and the groundwater level will be allowed to equilibrate to atmospheric pressure.
- The depth to groundwater will be measured from the surveyed location at each monitoring well casing to the nearest 0.01 foot using an electronic water-level measuring device. The depth to the monitoring well bottom also will be measured to evaluate siltation of the monitoring wells and to calculate the estimated purge water volume. Reusable equipment will be decontaminated between uses.
- Each monitoring well will be purged using a peristaltic or a bladder pump at flow rates of between 100 and 500 milliliters per minute.
- Groundwater geochemical parameters, including temperature, pH, specific conductivity, dissolved oxygen, and oxidation-reduction potential, will be recorded approximately every 3 minutes during purging using a multiparameter meter equipped with a flow-through cell.
- Groundwater samples will be collected directly from the pump outlet following stabilization of the geochemical parameters.
- Groundwater samples will be decanted directly into laboratory-supplied sample containers, with care taken to minimize turbulence. Care will be taken not to handle the seal or lid of

the container when the sample is placed into the container. Each container will be filled to eliminate headspace, and the seal/lid will be secured.

- Sample information will be logged on a Chain of Custody form, and the sample(s) will be placed into a cooler maintained at approximately 4 degrees Celsius for transport to the laboratory.
- Groundwater samples will be submitted to OnSite for laboratory analysis of CVOCs by EPA Method 8260C on a 7-day turnaround schedule.
- The well caps and monuments will be secured following sampling.

Samples collected from dewatering wells will be taken from a dedicated sample port placed prior to the discharge header. Low-flow sampling protocols are not feasible with an actively pumping dewatering well and grab groundwater samples will be collected from dewatering wells.

A Well Purging and Sampling Data form will be completed by a Field Scientist for each monitoring well, dewatering well, and/or interim action interception well sampled.

8.5 CONFIRMATIONAL SOIL MONITORING

Confirmational monitoring for soil will be conducted once performance soil sampling results indicate the excavation is approaching the lateral and vertical limits of Contaminated Soil or the Block 38 West Property boundary. Confirmational monitoring will consist of collecting in-situ soil samples from the base and sidewalls of the Contaminated Soil excavation to confirm that no COCs are present at concentrations exceeding MTCA cleanup levels. Performance monitoring soil sample locations will be used as confirmation soil sampling points in cases where the analytical results for the performance soil samples confirm that cleanup levels have been attained at the limits of each excavation area. Confirmation soil samples will be collected from the final lateral and vertical limits of Contaminated Soil or at the Block 38 West Property boundary using the sampling methodology described in Section 8.2.1, Soil Sampling Frequency.

9.0 REPORTING AND SCHEDULE

An interim action report will be prepared after completion of the interim action. In the event the interim action described this IAWP is made a part of and ultimately conducted under the Agreed Order, an Agency Review Draft Interim Action Report will be submitted within 60 days after completion of the interim action or within such other time frame as is set out in the Ecology-approved completion schedule to be included in the Agreed Order. The Draft Interim Action Report will be submitted to Ecology for review and comment, and will describe the activities and the results from the interim action. Ecology comments will be addressed and, if necessary, changes will be incorporated into the Final Interim Action Report.

Pursuant to WAC 173-340-840(5), all sampling data will be submitted to Ecology in both printed and electronic formats in accordance with Section VII (Work to be Performed), Ecology Toxics Cleanup Program Policy 840 (Data Submittal Requirements), and/or any subsequent procedures specified by Ecology for data submittal.

The anticipated start date of the interim action is late October 2019. The final permits, including the Construction Stormwater General Permit, and authorizations from the City of Seattle, the lead jurisdiction for the redevelopment, have been obtained and/or confirmed.

10.0 REFERENCES

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11.0 LIMITATIONS

11.1 GENERAL LIMITATIONS

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

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

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

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

11.2 LIMITATION ON RELIANCE BY THIRD PARTIES

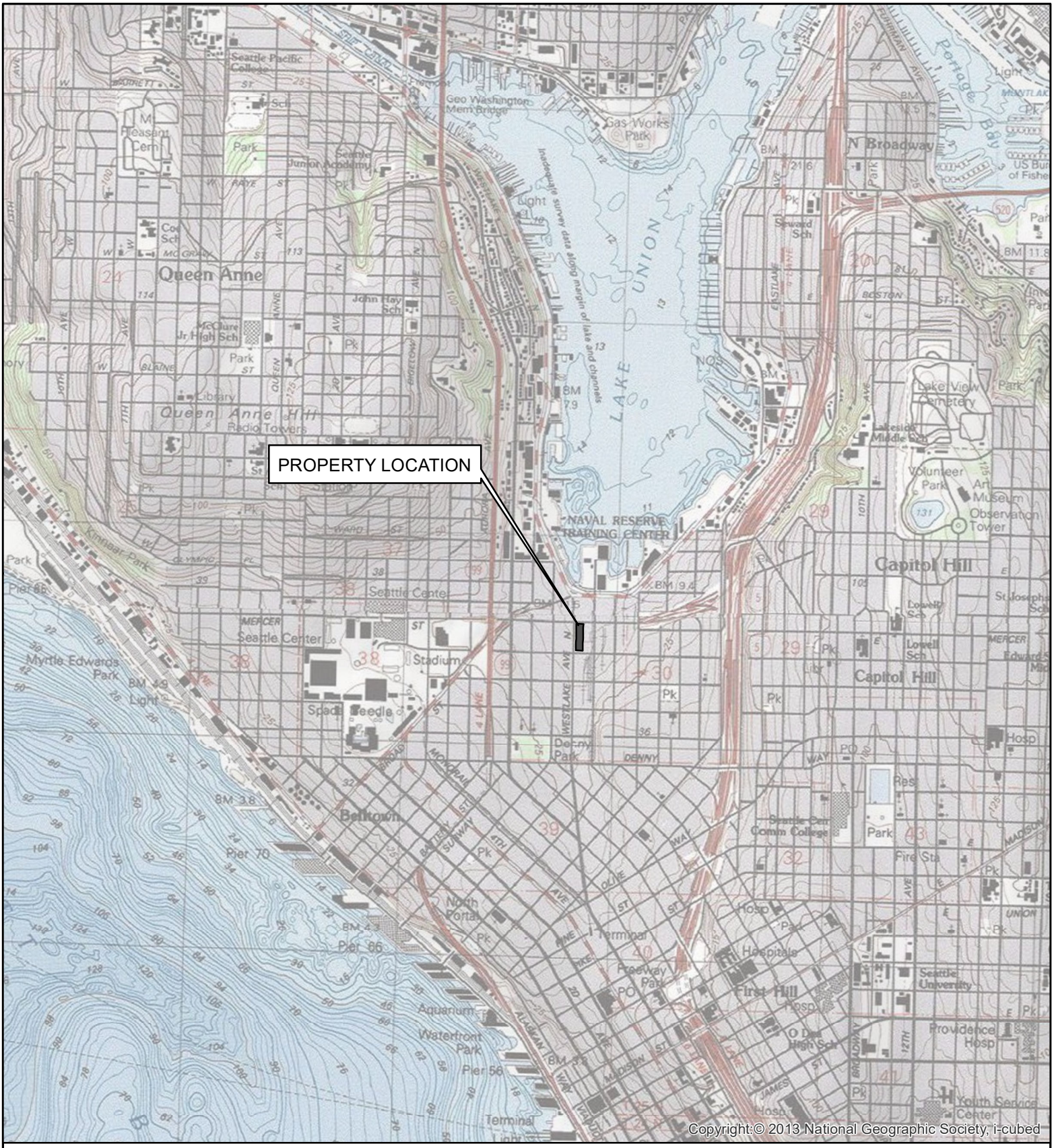
Reliance by third parties is prohibited. This report/assessment has been prepared for the exclusive use of City Investors IX LLC to address the unique needs of City Investors IX LLC at the Property at a specific point in time.

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

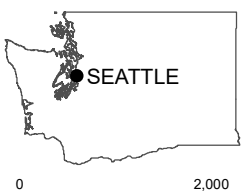
FIGURES

INTERIM ACTION WORK PLAN
Block 38 West Property
500 through 536 Westlake Avenue North
Seattle, Washington

Farallon PN: 397-019



REFERENCE: 7.5 MINUTE USGS QUADRANGLE SEATTLE NORTH, WASHINGTON, DATED 1983



N

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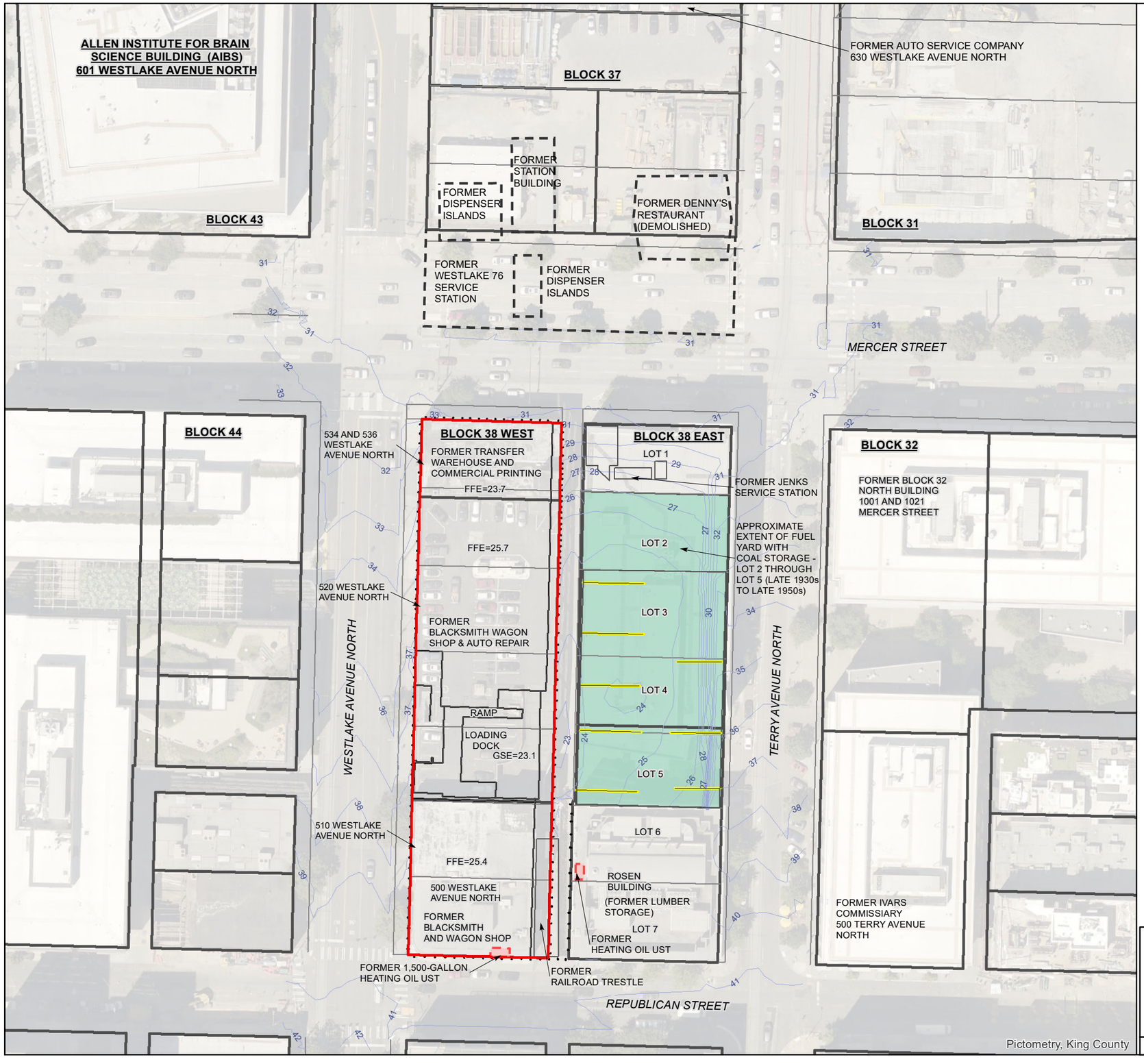
FIGURE 1

VICINITY MAP
BLOCK 38 WEST PROPERTY
SEATTLE, WASHINGTON

FARALLON PN: 397-019

Drawn By: jjones | Checked By: BJ | Date: 10/29/2018 | Disc Reference:

Document Path: Q:\Projects\397 VULCAN\019_Block38\Mapfiles\004_Reporting\Figure-01_SiteVicinity.mxd



LEGEND

- FORMER COAL STORAGE BINS (BASED ON 1953 AERIAL)
- BUILDING FEATURES
- LOT LINE
- 30 GROUND SURFACE ELEVATION CONTOUR
- FORMER FEATURE
- APPROXIMATE LOCATION OF FORMER HEATING OIL USTs
- PROPERTY BOUNDARY
- KING COUNTY PARCEL BOUNDARY

NOTES:
LOADING DOCK HIGHER THAN GSE
ELEVATION SOURCE: BUSH, ROED, & HITCHINGS, INC. (2014)
ELEVATION DATA PRESENTED IN FEET ABOVE MEAN SEA LEVEL IN THE NORTH AMERICAN VERTICAL DATUM OF 1988

FFE = APPROXIMATE FINISH FLOOR ELEVATIONS OF GROUND FLOOR OF EXISTING BUILDING
GSE = APPROXIMATE GROUND SURFACE ELEVATION OF EXISTING LOADING DOCK AREA
UST = UNDERGROUND STORAGE TANK

N

0 80
SCALE IN FEET

ALL LOCATIONS ARE APPROXIMATE.
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FIGURE 2

PROPERTY MAP WITH HISTORICAL FEATURES
BLOCK 38 WEST PROPERTY
SEATTLE, WASHINGTON

FARALLON PN: 397-019

Drawn By: tperrin | Checked By: CS | Date: 10/30/2019 | Disc Reference:
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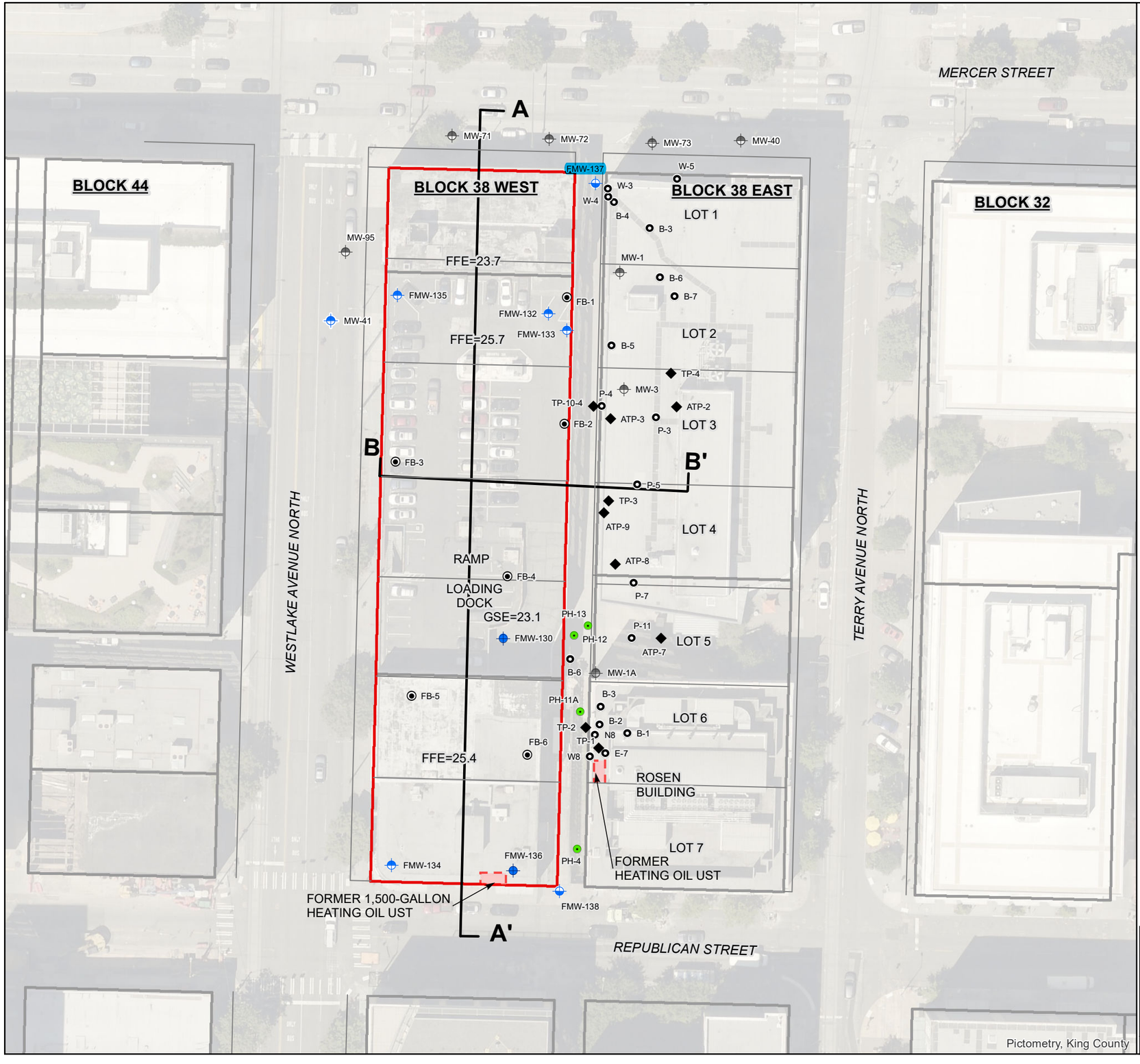

LEGEND

- BORING (FARALLON)
- BORING (OTHERS)
- EXCAVATION BORING
- POTHOLE
- TESTPIT
- SHALLOW WATER-BEARING ZONE MONITORING WELL
- DECOMMISSIONED SHALLOW WATER-BEARING ZONE WELL
- INTERMEDIATE WATER-BEARING ZONE WELL
- DEEP OUTWASH AQUIFER WELL
- APPROXIMATE LOCATION OF FORMER HEATING OIL USTs
- PROPERTY BOUNDARY
- KING COUNTY PARCEL BOUNDARY
- A A' LINE OF CROSS SECTION

NOTES:
LOADING DOCK HIGHER THAN GSE
ELEVATION SOURCE: BUSH, ROED, & HITCHINGS, INC. (2014)
ELEVATION DATA PRESENTED IN FEET ABOVE MEAN SEA LEVEL IN THE NORTH AMERICAN VERTICAL DATUM OF 1988

FFE = APPROXIMATE FINISH FLOOR ELEVATIONS OF GROUND FLOOR OF EXISTING BUILDING
GSE = APPROXIMATE GROUND SURFACE ELEVATION OF EXISTING LOADING DOCK AREA
UST = UNDERGROUND STORAGE TANK

N

0 60
SCALE IN FEET

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FIGURE 3

PROPERTY MAP WITH
BORING LOCATIONS
BLOCK 38 WEST PROPERTY
SEATTLE, WASHINGTON

FARALLON PN: 397-019

Drawn By: tperrin | Checked By: CS | Date: 10/30/2019 | Disc Reference:
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MERCER STREET
BLOCK 38 WEST PROPERTY
REPUBLICAN STREET
FORMER BUILDING
A
(NORTH)
A'
(SOUTH)
SIDEWALK
FFE = 23.7 MSL
FFE = 25.7 MSL
FFE = 25.4 MSL
GSE = 23.1 MSL
GROUND SURFACE / FLOOR ELEVATION
MW-72 (TP39'W)
MW-71 (TP16'E)
FB-01 (TP 53'W)
FMW-135 (TP 46'E)
FMW-132 (TP 42'W)
FMW-133 (TP 52'W)
FB-02 (TP 53'W)
FB-03 (TP 45'E)
FB-04 (TP 22'W)
FMW-130 (TP 20'W)
FB-05 (TP 32'E)
FB-06 (TP 37'W)
FMW-134 (TP 41'E)
FMW-136 (TP 31'W)
SILTY SAND AND SILT (FILL)
SAND/GRAVEL (FILL)
SILT/SANDY SILT (FILL)
SAND
WOOD DEBRIS/ ORGANICS(FILL)
SILT/SANDY SILT
SAND/SILTY SAND
SILT
GRAVEL
GRAVELY SILT
ESTIMATED DIRECTION OF GROUNDWATER FLOW
KING COUNTY SEWER MAIN
PROPERTY LINE
BUILDING FOUNDATION EXCAVATION AREA
FILL + RECENT DEPOSITS
GLACIALLY CONSOLIDATED SOIL
SHALLOW WATER-BEARING ZONE
INTERMEDIATE WATER-BEARING ZONE
DEEP OUTWASH AQUIFER
FEET ABOVE OR BELOW MEAN SEA LEVEL (MSL)
[5.0'|<27.9|<0.0857|---]
[5.0'|<27.1|<0.0891|---]
[10.0'|<27.7|<0.0868|---]
[10.0'|<28.0|<0.0861|---]
[12.0'|<29.3|<0.0910|---]
[15.0'|403|<0.702|---]
[15.0'|298|6.49|---]
[20.0'|99.6|<0.312|---]
[5.0'|3,700|3.29|3.43]
[5.0'|2,600|6.6|12.5]
[5.0'|670|3.3|15]
<100|<250|<1.0|---
<100|280|<1.0|<0.291
[10.0'|470|<0.165|<0.042]
[10.0'|270|---|---]
[10.0'|<65|<0.0258|<0.0065]
[5.0'|540|---|---]
[15.0'|250|<0.033|<0.008]
[15.0'|680|0.029|<0.017]
(<100|660|<1.0|<1.3)
[15.0'|<65|---|---]
[10.0'|---|0.276|0.52]
[15.0'|---|0.192|0.036]
{+++|---|5.1|---}
[20.0'|---|0.33|<0.0060]
[20.0'|<58|---|---]
[20.0'|<60|0.424|<0.0060]
[25.0'|<60|0.127|<0.0060]
[25.0'|<59|---|---]
[30.0'|<58|---|---]
[30.0'|---|0.132|<0.0062]
[30.0'|<59|---|---]
[35.0'|<62|---|---]
[35.0'|---|<0.024|<0.0060]
[5.0'|<61|---|---]
[15.0'|---|<0.0267|<0.0067]
(<100|<260|<1.0|---)
[20.0'|<61|---|---]
[20.0'|<62|---|---]
[2.5.0'|310|0.176|0.65]
[10.0'|---|<0.048|<0.012]
[20.0'|<61|0.070|<0.0061]
[5.0'|1,900|---|---]
[10.0'|<76|---|---]
140|540|<1.0|---
[15.0'|<61|0.18|<0.0061]
[20.0'|<63|0.030|<0.0063]
[30.0'|<59|---|---]
GROUNDWATER ANALYTICAL RESULTS
1 [11/3/2005|71.3|<236|0.980|---]
[11/14/2010|261|159|<1.0|<1.0]
2 [11/3/2005|18,100|5,880|240|---]
[11/14/2010|244|541|<1.0|3.3]
LEGEND
MW-56 (TP79'E)
BORING OR MONITORING WELL LOCATION TRANSPOSED (TP) IN FEET, EAST (E) OR WEST (W), TO CROSS-SECTION LINE.
SOIL SAMPLE LOCATION
GROUNDWATER SAMPLE LOCATION WITH DATA REFERENCE NUMBER
APPROXIMATE GROUNDWATER ELEVATION
STRATIGRAPHIC CONTACT
BLANK CASING OR BORING
BLOW COUNT (SUM OF SECOND AND THIRD 6" PENETRATION BLOW COUNTS)
STATIC GROUNDWATER ELEVATION (3/2019)
GROUNDWATER ELEVATION AT TIME OF DRILLING
PRESENCE OF ORGANIC LAYER / WOOD
TEMPORARY WELL SCREEN INTERVAL
WELL SCREEN INTERVAL
FFE = APPROXIMATE FINISH FLOOR ELEVATIONS OF GROUND FLOOR OF EXISTING BUILDING
GSE = APPROXIMATE GROUND SURFACE ELEVATION OF EXISTING LOADING DOCKS
ALL GROUNDWATER ANALYTICAL RESULTS IN MICROGRAMS PER LITER (µg/l)
[11/2/2008|51.8|<245|<0.5|---] GROUNDWATER ANALYTICAL RESULT DATE SAMPLED | GRO | DRO | BENZENE | TOTAL NAPHTHALENES
<100|<250|<0.20|<0.291 GROUNDWATER ANALYTICAL RESULT GRO | DRO | BENZENE | TOTAL NAPHTHALENES (3/26/2019)
(<100|<250|<0.20|<0.291) GROUNDWATER ANALYTICAL RESULT GRO | DRO | BENZENE | TOTAL NAPHTHALENES (8/23/2018)
{2,100|---|5.1|---} GROUNDWATER ANALYTICAL RESULT GRO | DRO | BENZENE | TOTAL NAPHTHALENES (7/21/2014)
+++ GRO REPORTED AT CONCENTRATION OF 2,100 µg/l; HOWEVER, RE-EVALUATION BY THE ANALYTICAL LABORATORY INDICATED THAT THE REPORTED CONCENTRATION WAS NOT SIMILAR TO A TYPICAL GAS
[5.0'|1,900|---|---] ALL SOIL ANALYTICAL RESULTS IN MILLIGRAMS PER KILOGRAM (mg/kg)
SOIL ANALYTICAL RESULT [DEPTH IN FEET BELOW GROUND SURFACE | ORO | TOTAL NAPHTHALENES | TOTAL cPAHs TEC]
DRO = TOTAL PETROLEUM HYDROCARBONS (TPH) AS DIESEL-RANGE ORGANICS
GRO = TPH AS GASOLINE-RANGE ORGANICS
ORO = TPH AS OIL-RANGE ORGANICS
cPAH TEC = CARCINOGENIC POLYCYCLIC AROMATIC HYDROCARBONS TOXIC EQUIVALENT CONCENTRATION
BOLD = INDICATES CONCENTRATIONS EXCEED THE CLEANUP LEVELS
--- = SAMPLE NOT ANALYZED FOR CONSTITUENT
< = DENOTES ANALYTE NOT DETECTED AT OR EXCEEDING THE REPORTING LIMIT LISTED
APPROXIMATE AREA OF WOOD DEBRIS/ORGANIC LAYER
Washington Issaquah | Bellingham | Seattle
Oregon Portland | Baker City
California Oakland | Folsom | Irvine
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FIGURE 4
CROSS SECTION A-A'
BLOCK 38 WEST PROPERTY
SEATTLE, WASHINGTON
FARALLON PN:397-019
Drawn By: NM
Checked By: SS
Date: 11/07/2019
Disk Reference: 397-019 X Section
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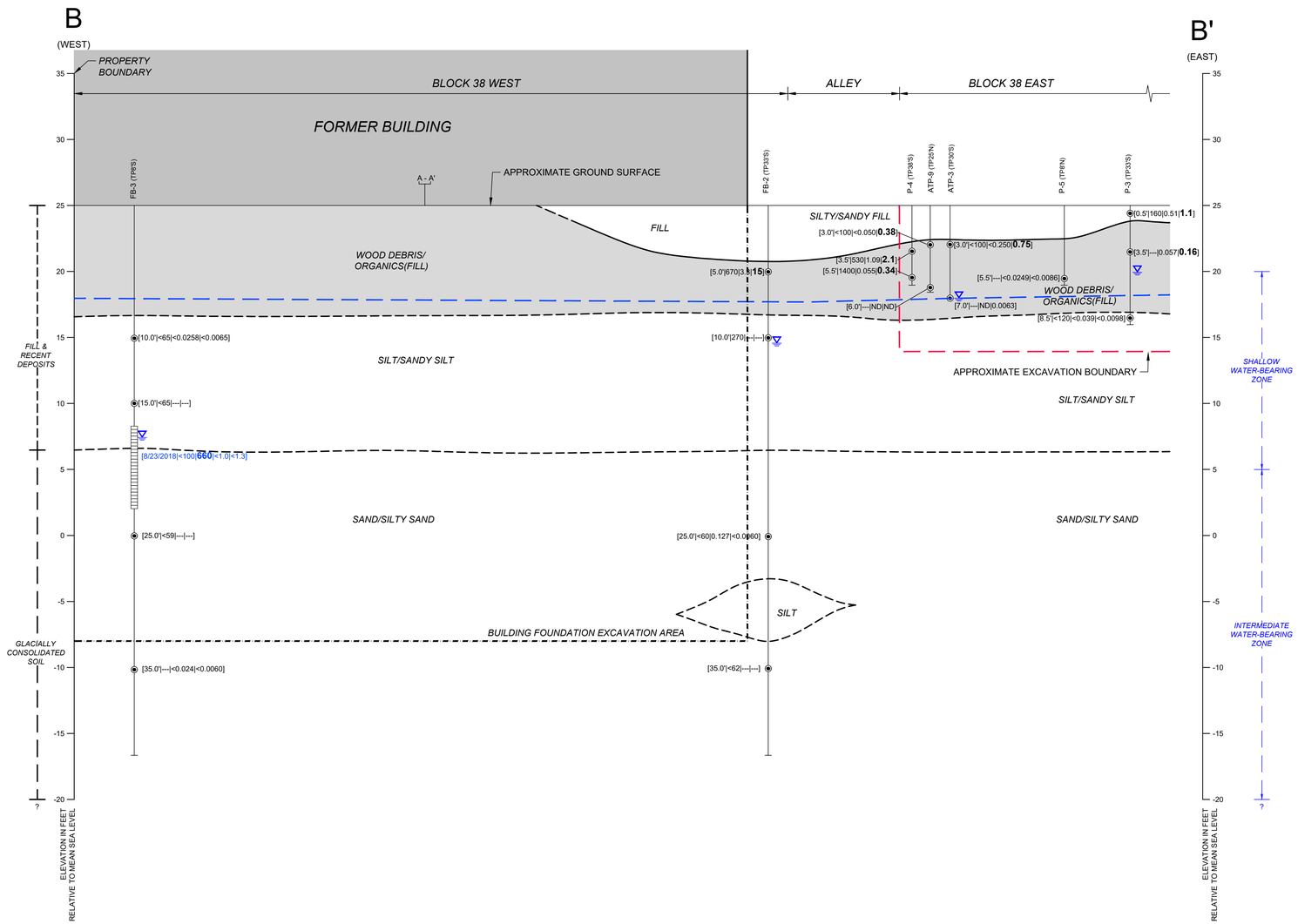

LEGEND

FB-3 (TP8'S)

BORING OR WELL LOCATION TRANSPOSED (TP) IN FEET, NORTH (N), SOUTH (S), EAST (E), OR WEST (W) OF CROSS-SECTION LINE.

SOIL SAMPLE
[35'|---|<0.0080|<0.0060] = SOIL ANALYTICAL RESULTS
DEPTH BGS | ORO | NAPHTHALENES | cPAH TEC

STRATIGRAPHIC CONTACT - DASHED WHERE INFERRED

APPROXIMATE GROUNDWATER ELEVATION - DASHED WHERE INFERRED

GROUNDWATER ELEVATION AT TIME OF DRILLING

RECONNAISSANCE GROUNDWATER SAMPLE

[8/23/2018|490|<1.3|---] = GROUNDWATER ANALYTICAL RESULTS
DATE SAMPLED|GRO|DRO|BENZENE|TOTAL NAPHTHALENES

TEMPORARY WELL SCREEN INTERVAL

SOIL ANALYTICAL RESULTS IN MILLIGRAMS PER KILOGRAM (mg/kg)
GROUNDWATER ANALYTICAL RESULTS IN MICROGRAMS PER LITER (µg/l)

BGS = BELOW GROUND SURFACE
GRO = TOTAL PETROLEUM HYDROCARBONS (TPH) AS GASOLINE-RANGE ORGANICS
DRO = TPH AS DIESEL-RANGE ORGANICS
ORO = TPH AS OIL-RANGE ORGANICS
cPAH TEC = CARCINOGENIC POLYCYCLIC AROMATIC HYDROCARBONS TOXIC EQUIVALENT CONCENTRATION
BOLD = INDICATES CONCENTRATIONS EXCEEDING THE CLEANUP LEVEL
< = INDICATES CONCENTRATIONS NOT DETECTED AT OR EXCEEDING THE STATED LABORATORY PRACTICAL QUANTITATION LIMIT
--- = INDICATES SAMPLE NOT ANALYZED
ND= NOT DETECTED

APPROXIMATE AREA OF WOOD DEBRIS/ORGANIC LAYER

5'
0'
0'
10'

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FIGURE 5

CROSS SECTION B-B'
BLOCK 38 WEST PROPERTY
SEATTLE, WASHINGTON

FARALLON PN:397-019

Drawn By:NM Checked By:SS Date: 11/07/2019 Disk Reference: 397-019 X Section

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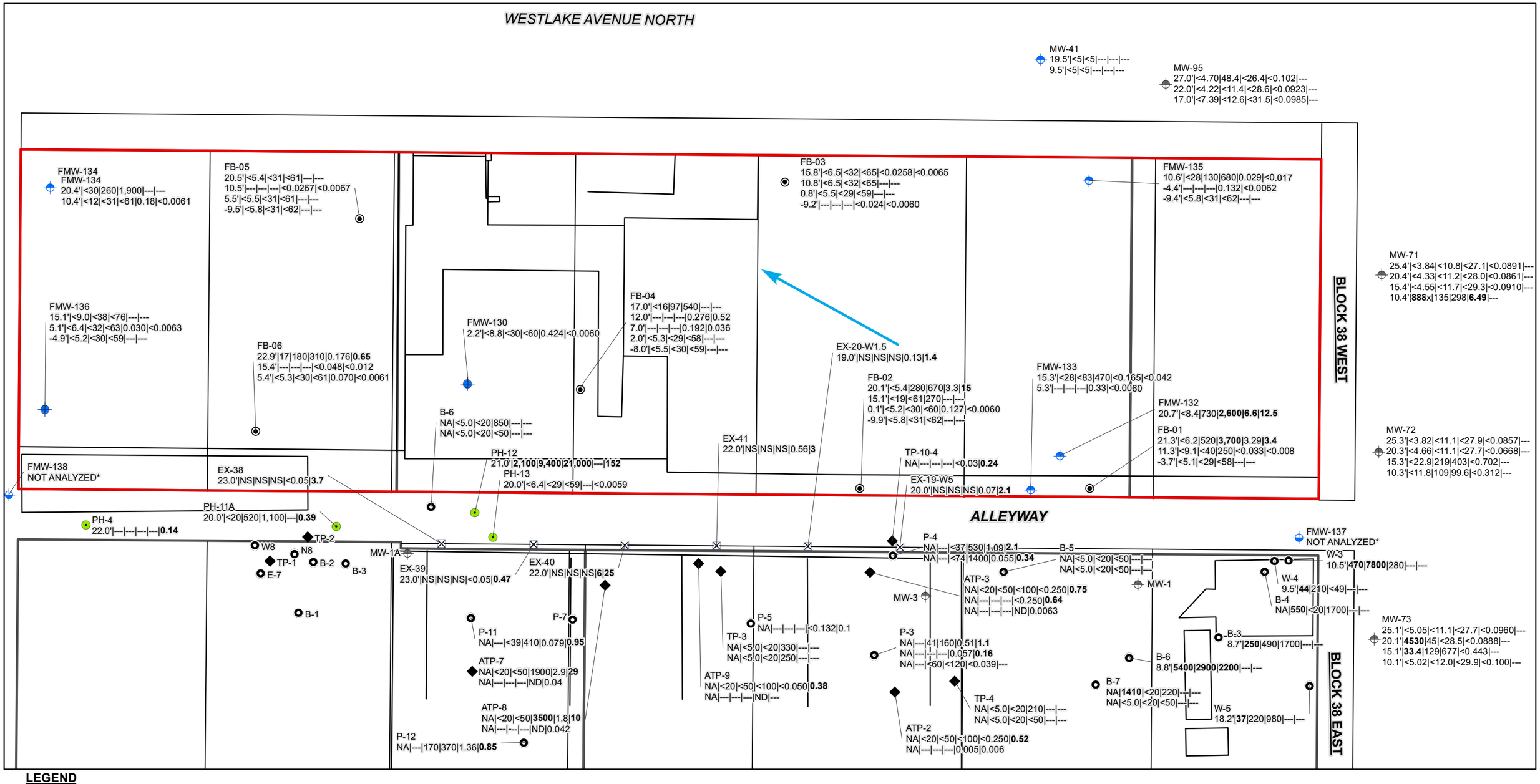

LEGEND

- BORING FARALLON
- BORING
- EXCAVATION BORING
- TESTPIT
- POTHOLE
- SHALLOW WATER-BEARING ZONE MONITORING WELL
- DECOMMISSIONED SHALLOW WATER-BEARING ZONE MONITORING WELL
- INTERMEDIATE WATER-BEARING ZONE WELL
- DEEP OUTWASH AQUIFER
- INFERRED GROUNDWATER FLOW DIRECTION MARCH 2019
- LOT LINE
- KING COUNTY PARCEL BOUNDARY

NOTES:
SOIL DEPTH AND CONCENTRATIONS REPORTED AS:
ELEVATION IN FEET ACCORDING TO MSL |
GRO | DRO | ORO | TOTAL NAPTHALENES | cPAH TEC
ANALYTICAL RESULTS IN MILLIGRAMS PER KILOGRAM

cPAH TEC	=	CARCINOGENIC POLYCYCLIC AROMATIC HYDROCARBON TOXIC EQUIVALENT CONCENTRATION
COC	=	CHEMICAL OF CONCERN
DRO	=	TOTAL PETROLEUM HYDROCARBONS (TPH) AS DIESEL-RANGE ORGANICS
GRO	=	TPH AS GASOLINE-RANGE ORGANICS
ORO	=	TPH AS OIL-RANGE ORGANICS
BOLD	=	CONCENTRATIONS THAT EXCEED MTCA CLEANUP LEVELS
<	=	ANALYTE NOT DETECTED AT OR EXCEEDING THE REPORTING LIMIT LISTED
---	=	SAMPLE NOT ANALYZED
MTCA	=	WASHINGTON STATE MODEL TOXICS CONTROL ACT CLEANUP REGULATION
MSL	=	MEAN SEA LEVEL
NA	=	NOT ANALYZED
ND	=	NOT DETECTED

ELEVATION SOURCE: BUSH, ROED, & HITCHINGS, INC. (2014)
ELEVATION DATA IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

ESTIMATED GROUND SURFACE: 25' NAVD88
DATA SOURCE FOR ROSEN PROPERTY:
GEOENGINEERS CLEANUP ACTION REPORT 2008,
ADAPT PHASE II 2006, GEOENGINEERS PHASE I 1999
INTERURBAN EXCHANGE BY GEOENGINEERS, 10/28/2008

ALL LOCATIONS ARE APPROXIMATE.
FIGURES WERE PRODUCED IN COLOR. GRAYSCALE COPIES MAY NOT REPRODUCE ALL ORIGINAL INFORMATION.

N
0 30
SCALE IN FEET

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FIGURE 6

SOIL ANALYTICAL RESULTS
BLOCK 38 WEST PROPERTY
AND ADJACENT PROPERTIES
SEATTLE, WASHINGTON

FARALLON PN: 397-019

Drawn By: tperrin | Checked By: CS | Date: 10/30/2019 | Disc Reference:
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LEGEND

- SHALLOW WATER-BEARING ZONE
- INTERMEDIATE WATER-BEARING ZONE
- DEEP OUTWASH AQUIFER
- (18.48) GROUNDWATER ELEVATION (03/26/19) MEASURED IN FEET RELATIVE TO NAVD 88
- (17.44)** ELEVATION NOT USED IN CONTOURING
- 18.00 APPROXIMATE GROUNDWATER ELEVATION CONTOUR IN FEET NAVD88 (INFERRED WHERE DASHED)
- INFERRED GROUNDWATER FLOW DIRECTION
- PROPERTY BOUNDARY
- KING COUNTY PARCEL BOUNDARY

FFE = APPROXIMATE FINISH FLOOR ELEVATIONS OF GROUND FLOOR OF EXISTING BUILDING
GSE = APPROXIMATE GROUND SURFACE ELEVATION OF EXISTING LOADING DOCK AREA
UST = UNDERGROUND STORAGE TANK

NOTES:
LOADING DOCK HIGHER THAN GSE
ELEVATION SOURCE: BUSH, ROED, & HITCHINGS, INC. (2014)
ELEVATION DATA PRESENTED IN FEET ABOVE MEAN SEA LEVEL IN THE NORTH AMERICAN VERTICAL DATUM OF 1988

N

0 60
SCALE IN FEET

ALL LOCATIONS ARE APPROXIMATE.
FIGURES WERE PRODUCED IN COLOR. GRAYSCALE COPIES MAY NOT REPRODUCE ALL ORIGINAL INFORMATION.

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FIGURE 7

GROUNDWATER ELEVATION CONTOURS
FOR MARCH 26, 2019
BLOCK 38 WEST PROPERTY
SEATTLE, WASHINGTON
FARALLON PN: 397-019

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WESTLAKE AVENUE NORTH

BLOCK 38 WEST

BLOCK 38 EAST

ALLEYWAY

MW-41
11/5/1991|<1,000|<1,000|--|---|---
8/14/2012|<50.0|<88.9|<444|<1.0|---

MW-95
11/2/2005|545|<236|<472|---|---
11/15/2010|85.7|<77.7|<388|<1.0|---

FMW-134
8/30/2018|++|1,000|<410|312|<0.0075
12/28/2018|<100|560|<410|25|<0.0083
12/28/2018|<100|680|490|66|<0.0076
3/26/2019|140Z|540|<400|---|<0.0076

FB-5
**8/22/2018|<100|<260|<410|---|---

FB-3
**8/23/2018|<100|660|490|<1.3|---

FMW-135
8/30/2018|<100|<260|<410|1.32|<0.0072
12/28/2018|<100|370|<410|0.56|<0.0075
3/26/2019|<100|<250|<410|---|<0.0083

MW-71
11/3/2005|18,100|5,880|<472|---|---
11/14/2010|244|541|2,600|3.3|---

FMW-130
**7/21/2014|+++|---|---|650E|---
7/24/2014|<100|---|---|---|---
7/3/2017|<100|---|---|---|---
8/30/2018|<100|<250|<410|<0.097|<0.0073
12/28/2018|<100|<260|<410|<0.11|<0.0083
3/26/2019|<100|<250|<400|---|0.0099

FB-4

FMW-133
8/30/2018|<100|270|<410|<0.291|<0.0073
12/28/2018|<100|310|<410|<0.30|<0.0076
3/26/2019|<100|280|<400|---|<0.0083

FMW-132
8/30/2018|<100|260|<400|<0.096|<0.0072
12/28/2018|<100|<260|<410|<0.10|<0.0076
3/26/2019|<100|<250|<400|---|<0.0076

FMW-136
8/30/2018|<100|<250|<400|0.39|<0.0072
12/28/2018|<100|<260|<410|<0.30|<0.0076
3/26/2019|<100|<250|<410|---|<0.0076

FB-6

MW-72
11/3/2005|71.3|<236|<472|---|---
11/14/2010|261|159|749|<1.0|---

FB-2

FB-1

FMW-137
NOT ANALYZED*

FMW-138
NOT ANALYZED*

MW-1A
1/4/1999|<100|<200|<500|---|---

MW-3
1/4/1999|<100|<200|<500|---|---

MW-1
1/4/1999|<100|<300|<500|---|---

MW-73
11/3/2005|1,070|249|<472|---|---
11/14/2010|1,410|407|1,670|<1.0|---

N

0 30

SCALE IN FEET

LEGEND

- BORING FARALLON
- SHALLOW WATER-BEARING ZONE MONITORING WELL
- DECOMMISSIONED SHALLOW WATER-BEARING ZONE MONITORING WELL
- INTERMEDIATE WATER-BEARING ZONE WELL
- DEEP OUTWASH AQUIFER WELL
- INFERRED GROUNDWATER FLOW DIRECTION MARCH 2019
- LOT LINE
- PROPERTY BOUNDARY
- KING COUNTY PARCEL BOUNDARY

NOTES:
DATE SAMPLED AND CONCENTRATIONS REPORTED AS:
SAMPLE DATE | GRO | DRO | ORO | TOTAL NAPTHALENES | cPAH TEC
ANALYTICAL RESULTS IN MICROGRAMS PER LITER (µg/l)
* = NOT ANALYZYED FOR GRO | DRO | ORO | TOTAL NAPTHALENES | cPAH TEC

ALL LOCATIONS ARE APPROXIMATE.
FIGURES WERE PRODUCED IN COLOR. GRAYSCALE COPIES MAY NOT REPRODUCE ALL ORIGINAL INFORMATION.

cPAH TEC = CARCINOGENIC POLYCYCLIC AROMATIC HYDROCARBON TOXIC EQUIVALENT CONCENTRATION
DRO = TOTAL PETROLEUM HYDROCARBONS (TPH) AS DIESEL-RANGE ORGANICS
GRO = TPH AS GASOLINE-RANGE ORGANICS
ORO = TPH AS OIL-RANGE ORGANICS
BOLD = CONCENTRATIONS THAT EXCEED MTCA CLEANUP LEVELS
< = ANALYTE NOT DETECTED AT OR EXCEEDING THE REPORTING LIMIT LISTED
--- = SAMPLE NOT ANALYZED
MTCA = WASHINGTON STATE MODEL TOXICS CONTROL ACT CLEANUP REGULATION
MSL = MEAN SEA LEVEL
** = INDICATES RESULTS ARE FROM A RECONNAISSANCE GROUNDWATER SAMPLE
µg/l = MICROGRAMS PER LITER
E = CONCENTRATION IS ESTIMATED BASED ON THE REPORTED VALUE EXCEEDING THE QUANTITATION RANGE

DATA SOURCE FOR ROSEN PROJECT: CLEANUP ACTION REPORT INTERURBAN EXCHANGE BY GEOENGINEERS, 10/28/2008
LABORATORY INDICATED THE REPORTED CONCENTRATION WAS DUE TO A SINGLE
+++ = GRO REPORTED AT A CONCENTRATION OF 2,100 µg/l; HOWEVER, RE-EVALUATION BY THE ANALYTICAL LABORATORY INDICATED THAT THE REPORTED CONCENTRATION WAS NOT SIMILAR TO A TYPICAL GAS.
++ = GRO REPORTED AT A CONCENTRATION OF 1,100 µg/l; HOWEVER, RE-EVATLUATION BY THE ANALYTICAL LABORATORY INDICATED THAT THE REPORTED CONCENTRATION GRO WAS ATTRIBUTED TO A SINGLE PEAK ON THE CHROMATOGRAM, WHICH WAS IN THE RANGE OF NAPHTHALENE. NAPHTHALENE WAS QUANTIFIED AT A CONCENTRATION OF 290 µg/l AND TOTAL NAPHTHALENES AT 312 µg/l IN THIS GROUNDWATER SAMPLE.

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FIGURE 8

GROUNDWATER ANALYTICAL RESULTS BLOCK 38 WEST PROPERTY AND ADJACENT PROPERTIES SEATTLE, WASHINGTON

FARALLON PN: 397-019

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TABLES

INTERIM ACTION WORK PLAN
Block 38 West Property
500 through 536 Westlake Avenue North
Seattle, Washington

Farallon PN: 397-019

Table 1
Soil Analytical Results for TPH and BTEX
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Sample Location	Sample Identification	Sample Depth (feet)[1]	Sample Elevation (feet NAVD88)[1]	Sample Date	Analytical Results (milligrams per kilogram)								
					NWTPH-Dx[2]		NWTPH-Dx with Silica Gel[2]		NWTPH-Gx[3]	EPA Method 8021B[4]			
					DRO	ORO	DRO	ORO	GRO	Benzene	Toluene	Ethylbenzene	Xylenes
Block 38 West Property													
FB-01	FB-01-5.0-082118	5.0	21.3	8/21/2018	520	**3,700**	510 N	1,100	< 6.2	< 0.020	< 0.062	< 0.062	< 0.124
	FB-01-15.0-082118	15.0	11.3	8/21/2018	< 40	250	< 40	< 81	< 9.1	< 0.020	< 0.091	< 0.091	< 0.182
	FB-01-30.0-082118	30.0	-3.7	8/21/2018	< 29	< 58	---	---	< 5.1	< 0.020	< 0.051	< 0.051	< 0.102
FB-02	FB-02-5.0-082018	5.0	20.1	8/20/2018	280 N	670	---	---	< 5.4	< 0.020	< 0.054	< 0.054	< 0.108
	FB-02-10.0-082018	10.0	15.1	8/20/2018	< 61	270	---	---	< 19	< 0.037	< 0.19	< 0.19	< 0.38
	FB-02-25.0-082018	25.0	0.1	8/20/2018	< 30	< 60	---	---	< 5.2	< 0.020	< 0.052	< 0.052	< 0.104
	FB-02-35.0-082018	35.0	-9.9	8/20/2018	< 31	< 62	---	---	< 5.8	< 0.020	< 0.058	< 0.058	< 0.116
FB-03	FB-03-10.0-082318	10.0	15.8	8/23/2018	< 32	< 65	---	---	< 6.5	< 0.020	< 0.065	< 0.065	< 0.130
	FB-03-15.0-082318	15.0	10.8	8/23/2018	< 32	< 65	---	---	< 6.5	< 0.020	< 0.065	< 0.065	< 0.130
	FB-03-25.0-082318	25.0	0.8	8/23/2018	< 29	< 59	---	---	< 5.5	< 0.020	< 0.055	< 0.055	< 0.110
FB-04	FB-04-5.0-082118	5.0	17.0	8/21/2018	97 N	540	---	---	< 16	< 0.033	< 0.16	< 0.16	< 0.32
	FB-04-20.0-082118	20.0	2.0	8/21/2018	< 29	< 58	---	---	< 5.3	< 0.020	< 0.053	< 0.053	< 0.106
	FB-04-30.0-082118	30.0	-8.0	8/21/2018	< 30	< 59	---	---	< 5.5	< 0.020	< 0.055	< 0.055	< 0.110
FB-05	FB-05-5.0-082218	5.0	20.5	8/22/2018	< 31	< 61	---	---	< 5.4	< 0.020	< 0.054	< 0.054	< 0.108
	FB-05-20.0-082218	20.0	5.5	8/22/2018	< 31	< 61	---	---	< 5.5	< 0.020	< 0.055	< 0.055	< 0.110
	FB-05-35.0-082218	35.0	-9.5	8/22/2018	< 31	< 62	---	---	< 5.8	< 0.020	< 0.058	< 0.058	< 0.116
FB-06	FB-06-2.5-082218	2.5	22.9	8/22/2018	180	310	---	---	17 T	< 0.024	< 0.12	< 0.12	< 0.24
	FB-06-20.0-082218	20.0	5.4	8/22/2018	< 30	< 61	---	---	< 5.3	< 0.020	< 0.053	< 0.053	< 0.106
FMW-130	F-MW-130-20.0-072114	20.0	2.2	7/21/2014	< 30	< 60	---	---	< 8.8	< 0.020	< 0.088	< 0.088	< 0.176
FMW-132	FMW-132-5.0-082418	5.0	20.7	8/24/2018	730	**2,600**	---	---	< 8.4	< 0.020	< 0.084	< 0.084	< 0.168
FMW-133	FMW-133-10.0-082418	10.0	15.3	8/24/2018	< 83	470	---	---	< 28	< 0.057	< 0.28	< 0.28	< 0.56
FMW-134	FMW-134-5.0-082318	5.0	20.4	8/23/2018	260	1,900	---	---	< 30	< 0.059	< 0.30	< 0.30	< 0.60
	FMW-134-15.0-082318	15.0	10.4	8/23/2018	< 31	< 61	---	---	< 12	< 0.023	< 0.12	< 0.12	< 0.24
FMW-135	FMW-135-15.0-082418	15.0	10.6	8/24/2018	130	680	---	---	< 28	< 0.055	< 0.28	< 0.28	< 0.56
	FMW-135-35.0-082418	35.0	-9.4	8/24/2018	< 31	< 62	---	---	< 5.8	< 0.020	< 0.058	< 0.058	< 0.116
FMW-136	FMW-136-10.0-082218	10.0	15.1	8/22/2018	< 38	< 76	---	---	< 9.0	< 0.020	< 0.090	< 0.090	< 0.18
	FMW-136-20.0-082218	20.0	5.1	8/22/2018	< 32	< 63	---	---	< 6.4	< 0.020	< 0.064	< 0.064	< 0.128
	FMW-136-30.0-082218	30.0	-4.9	8/22/2018	< 30	< 59	---	---	< 5.2	< 0.020	< 0.052	< 0.052	< 0.104
PH-11A	PH-11A-4.0-011919	4.0	20.0	1/19/2019	520 N	1,100	---	---	< 20	---	---	---	---
PH-12	PH-12-4.0-011919	4.0	21.0	1/19/2019	**9,400 N,M**	**21,000**	---	---	**2,100**	---	---	---	---
PH-13	PH-13-3.0-011219	3.0	20.0	1/12/2019	< 29	< 59	---	---	< 6.4	---	---	---	---
MTCA Method A Cleanup Levels for Soil[5]					**2,000**	**2,000**	**2,000**	**2,000**	**30/100[6]**	**0.03**	**7**	**6**	**9**

Table 1
Soil Analytical Results for TPH and BTEX
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Sample Location	Sample Identification	Sample Depth (feet)[1]	Sample Elevation (feet NAVD88)[1]	Sample Date	Analytical Results (milligrams per kilogram)								
					NWTPH-Dx[2]		NWTPH-Dx with Silica Gel[2]		NWTPH-Gx[3]	EPA Method 8021B[4]			
					DRO	ORO	DRO	ORO	GRO	Benzene	Toluene	Ethylbenzene	Xylenes
Block 38 East Property													
ATP-3	ATP-3/S-1	2.0 - 3.0	NA	8/12/2006	< 50	< 100	---	---	< 20	---	---	---	---
ATP-8	ATP-8/S-1	1.5 - 3.0	NA	8/13/2006	< 50	**3,500**	---	---	< 20	---	---	---	---
ATP-9	ATP-9/S-1	1.5 - 3.0	NA	8/13/2006	< 50	< 100	---	---	< 20	---	---	---	---
B-3	B-3	10.0	8.7	10/11/1993	490	1,700	---	---	**250**	< 0.12	0.30	0.27	1.2
B-6 (a)	B-6 (a)	8.0	8.8	10/11/1993	**2,900**	**2,200**	---	---	**5,400**	< 1.6	6.4	**21**	**110**
B-4	B-4-13	13.0	NA	12/15/1998	< 20	1,700	---	---	**550**	< 50	< 50	**1,440**	**4,000**
B-5	B-5-8	8.0	NA	12/16/1998	< 20	< 50	---	---	< 5.0	< 50	< 50	< 50	**1,340**
	B-5-23	23.0	NA	12/16/1998	< 20	< 50	---	---	< 5.0	< 50	< 50	< 50	< 50
B-6	B-6-3	3.0	NA	12/29/1998	< 20	850	---	---	< 5.0	< 50	< 50	< 50	< 50
	B-6-13	13.0	NA	12/29/1998	< 20	< 50	---	---	< 5.0	< 50	< 50	< 50	< 50
P-3	P-3-0.5	0.5	NA	6/12/2002	41	160	---	---	---	---	---	---	---
	P-3-3.5	3.5	NA	6/12/2002	---	---	---	---	---	---	---	---	---
	P-3-3.5 (Wet Weight)	3.5	NA	6/12/2002	---	---	---	---	---	---	---	---	---
	P-3-8.5	8.5	NA	6/12/2002	< 60	< 120	---	---	---	---	---	---	---
P-4	P-4-3.5	3.5	NA	6/12/2002	< 37	530	---	---	---	---	---	---	---
	P-4-5.5	5.5	NA	6/12/2002	< 74	1,400	---	---	---	---	---	---	---
P-5	P-5-5.5	5.5	NA	6/12/2002	---	---	---	---	---	---	---	---	---
	P-5-5.5 (Wet Weight)	5.5	NA	6/12/2002	---	---	---	---	---	---	---	---	---
P-11	P-11-1.5	1.5	NA	6/12/2002	< 39	410	---	---	---	---	---	---	---
P-12	P-12-1.5	1.5	NA	6/12/2002	170	370	---	---	---	---	---	---	---
TP-3	TP-3-2	2.0	NA	1/18/1999	< 20	330	---	---	< 5.0	< 50	< 50	< 50	< 50
	TP-3-4	4.0	NA	1/18/1999	< 20	250	---	---	< 5.0	< 50	< 50	< 50	< 50
MTCA Method A Cleanup Levels for Soil[5]					**2,000**	**2,000**	**2,000**	**2,000**	**30/100[6]**	**0.03**	**7**	**6**	**9**

Table 1
Soil Analytical Results for TPH and BTEX
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Sample Location	Sample Identification	Sample Depth (feet)[1]	Sample Elevation (feet NAVD88)[1]	Sample Date	Analytical Results (milligrams per kilogram)								
					NWTPH-Dx[2]		NWTPH-Dx with Silica Gel[2]		NWTPH-Gx[3]	EPA Method 8021B[4]			
					DRO	ORO	DRO	ORO	GRO	Benzene	Toluene	Ethylbenzene	Xylenes
Block 37 Property													
MW-41	MW-41-3	7.5	19.5	10/28/1991	< 5	---	---	---	< 5	< 0.040	< 0.040	< 0.040	< 0.040
	MW-41-7	17.5	9.5	10/28/1991	< 5	---	---	---	< 5	---	---	---	---
MW-71	MW-71-5	5.0	25.4	10/12/2005	< 10.8	< 27.1	---	---	< 3.84	< 0.0267	< 0.0891	< 0.0891	< 0.267
	MW-71-10	10.0	20.4	10/12/2005	< 11.2	< 28.0	---	---	< 4.33	**0.189**	< 0.0861	0.341	0.262
	MW-71-15	15.0	15.4	10/12/2005	< 11.7	< 29.3	---	---	< 4.55	< 0.0273	< 0.0910	< 0.0910	< 0.273
	MW-71-20	20.0	10.4	10/12/2005	135	298	---	---	**888**	**1.02**	0.724	**9.97**	**29.1**
MW-72	MW-72-5	5.0	25.3	10/12/2005	< 11.1	< 27.9	---	---	< 3.82	< 0.0257	< 0.0857	< 0.0857	< 0.257
	MW-72-10	10.0	20.3	10/12/2005	< 11.1	< 27.7	---	---	< 4.66	< 0.0260	< 0.0868	< 0.0868	< 0.260
	MW-72-15	15.0	15.3	10/12/2005	219	403	---	---	< 22.9	**0.533**	< 0.702	< 0.702	< 2.10
	MW-72-20	20.0	10.3	10/12/2005	109	99.6	---	---	< 11.8	< 0.0405	< 0.312	< 0.312	< 0.936
MW-73	MW-73-5	5.0	25.1	10/12/2005	< 11.1	< 27.7	---	---	< 5.05	< 0.0288	< 0.0960	< 0.0960	< 0.288
	MW-73-10	10.0	20.1	10/12/2005	45	< 28.5	---	---	**4,530**	< 0.0266	< 0.0888	< 0.0888	< 0.266
	MW-73-16	15.0	15.1	10/12/2005	129	677	---	---	**33.4**	**0.261**	< 0.443	< 0.443	< 1.33
	MW-73-20	20.0	10.1	10/12/2005	< 12.0	< 29.9	---	---	< 5.02	< 0.0131	< 0.100	< 0.100	< 0.301
MW-95	MW-95-5	5.0	27.0	10/19/2005	48.4	< 26.4	---	---	< 4.70	**0.0346**	< 0.0508	< 0.0508	< 0.102
	MW-95-10	10.0	22.0	10/19/2005	< 11.4	< 28.6	---	---	< 4.22	< 0.0277	< 0.0462	< 0.0462	< 0.0923
	MW-95-15	15.0	17.0	10/19/2005	< 12.6	< 31.5	---	---	< 7.39	< 0.0295	< 0.0492	< 0.0492	< 0.0985
MTCA Method A Cleanup Levels for Soil[5]					**2,000**	**2,000**	**2,000**	**2,000**	**30/100[6]**	**0.03**	**7**	**6**	**9**

NOTES:

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

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

— denotes sample not analyzed.

[1]Depth in feet below ground surface. Elevation in feet referenced to North American Vertical Datum of 1988 (NAVD88).

[2]Analyzed by Northwest Method NWTPH-Dx. Results denoted as analyzed by NWTPH-Dx with silica gel were analyzed using a sample extract treated with sulfuric acid/silica gel cleanup procedure.

[3]Analyzed by Northwest Method NWTPH-Gx.

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

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

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

Adapt Engineering = Adapt Engineering, Inc.

BTEX = benzene, toluene, ethylbenzene, and xylenes

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

Enviros = Enviros Group, Ltd.

Farallon = Farallon Consulting, L.L.C.

GeoEngineers = GeoEngineers, Inc.

GRO = TPH as gasoline-range organics

M = hydrocarbons in the gasoline range are impacting the diesel-range result

N = hydrocarbons in the oil-range are impacting the diesel-range result

NA = not available

ORO = TPH as oil-range organics

T = the sample chromatogram is not similar to a typical gasoline standard

Table 2
Soil Analytical Results for PAHs
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Sample Location	Sample Identification	Sample Composition	Sample Depth (feet)[1]	Sample Elevation (feet NAVD88)[1]	Sample Date	Analytical Results (milligrams per kilogram)[2]																			
						Non-Carcinogenic PAHs												Carcinogenic PAHs							
						Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Naphthalenes[3,5]	Acenaphthene	Acenaphthylene	Anthracene	Benzo(g,h,i)Perylene	Fluoranthene	Fluorene	Phenanthrene	Pyrene	Benzo(a)Pyrene	Benzo(a)Anthracene	Benzo(b)Fluoranthene	Benzo(j,k)Fluoranthene	Chrysene	Dibenzo(a,h)Anthracene	Indeno(1,2,3-cd)Pyrene	Total cPAHs TEC[4,5]
Block 38 West Property																									
FB-01	FB-01-5.0-082118	Soil	5.0	21.3	8/21/2018	0.99	1.1	1.2	3.29	0.46	0.32	1.0	1.9	4.8	0.46	5.4	6.8	2.5	2.6	2.9	0.76	3.1	0.45	1.6	**3.4**
	FB-01-15.0-082118	Soil	15.0	11.3	8/21/2018	< 0.011	< 0.011	< 0.011	< 0.033	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.008
FB-02	FB-02-5.0-082018	Soil	5.0	20.1	8/20/2018	1.1	0.86	1.3	3.3	1.4	0.45	3.3	8.5	18	1.3	12	25	11	9.8	12	3.5	9.7	1.6	8.0	**15**
	FB-02-25.0-082018	Soil	25.0	0.1	8/20/2018	0.083	0.020	0.024	0.127	0.027	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0060
FB-03	FB-03-10.0-082318	Soil	10.0	15.8	8/23/2018	< 0.0086	< 0.0086	< 0.0086	< 0.0258	< 0.0086	< 0.0086	< 0.0086	< 0.0086	0.011	< 0.0086	0.015	0.012	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0065
	FB-03-35.0-082318	Soil	35.0	-9.2	8/23/2018	< 0.0080	< 0.0080	< 0.0080	< 0.024	< 0.0080	< 0.0080	< 0.0080	< 0.0080	0.015	< 0.0080	0.017	0.017	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0060
FB-04	FB-04-10.0-082118	Soil	10.0	12.0	8/21/2018	0.12	0.057	0.099	0.276	0.21	0.045	0.29	0.21	0.97	0.22	1.0	1.1	0.36	0.67	0.47	0.18	0.95	0.041	0.19	**0.52**
	FB-04-15.0-082118	Soil	15.0	7.0	8/21/2018	0.052	0.048	0.092	0.192	0.049	< 0.0082	0.029	0.018	0.078	0.043	0.16	0.1	0.027	0.027	0.025	0.0099	0.028	< 0.0082	0.017	0.036
FB-05	FB-05-15.0-082218	Soil	15.0	10.5	8/22/2018	< 0.0089	< 0.0089	< 0.0089	< 0.0267	< 0.0089	< 0.0089	< 0.0089	< 0.0089	< 0.0089	< 0.0089	< 0.0089	< 0.0089	< 0.0089	< 0.0089	< 0.0089	< 0.0089	< 0.0089	< 0.0089	< 0.0089	< 0.0067
FB-06	FB-06-2.5-082218	Soil	2.5	22.9	8/22/2018	0.087	0.044	0.045	0.176	0.13	0.042	0.20	0.35	0.81	0.094	0.89	1.1	0.49	0.47	0.52	0.17	0.50	0.054	0.34	**0.65**
	FB-06-10.0-082218	Soil	10.0	15.4	8/22/2018	< 0.016 H	< 0.016 H	< 0.016 H	< 0.048	< 0.016 H	< 0.016 H	< 0.016 H	< 0.016 H	< 0.016 H	< 0.016 H	< 0.016 H	0.020 H	< 0.016 H	< 0.016 H	< 0.016 H	< 0.016 H	< 0.016 H	< 0.016 H	< 0.016 H	< 0.016 H	< 0.012
	FB-06-20.0-082218	Soil	20.0	5.4	8/22/2018	0.070	< 0.0081	< 0.0081	0.070	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0061
FMW-130	F-MW-130-20.0-072114	Soil	20.0	2.2	7/21/2014	0.38	0.016	0.028	0.424	0.014	< 0.0079	< 0.0079	< 0.0079	< 0.0079	< 0.0079	< 0.0079	< 0.0079	< 0.0079	< 0.0079	< 0.0079	< 0.0079	< 0.0079	< 0.0079	< 0.0079	< 0.0060
FMW-132	FMW-132-5.0-082418	Soil	5.0	20.7	8/24/2018	2.0	2.0	2.6	**6.6**	1.5	0.10	3.3	4.4	15	0.84	18	27	9.4	11	10	2.9	13	1.4	4.1	**12.5**
FMW-133	FMW-133-10.0-082418	Soil	10.0	15.3	8/24/2018	< 0.055	< 0.055	< 0.055	< 0.165	< 0.055	< 0.055	< 0.055	< 0.055	< 0.055	< 0.055	< 0.055	< 0.055	< 0.055	< 0.055	< 0.055	< 0.055	< 0.055	< 0.055	< 0.055	< 0.042
	FMW-133-20.0-082418	Soil	20.0	5.3	8/24/2018	0.25	0.035	0.042	0.33	0.021	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0060
FMW-134	FMW-134-15.0-082318	Soil	15.0	10.4	8/23/2018	0.14	0.012	0.028	0.18	0.014	< 0.0081	< 0.0081	< 0.0081	< 0.0081	0.016	0.021	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0061
FMW-135	FMW-135-15.0-082418	Soil	15.0	10.6	8/24/2018	0.029	< 0.022	< 0.022	0.029	0.039	< 0.022	< 0.022	< 0.022	0.042	< 0.022	0.068	0.073	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.017
	FMW-135-30.0-082418	Soil	30.0	-4.4	8/24/2018	0.12	0.012	< 0.0082	0.132	< 0.0082	< 0.0082	< 0.0082	< 0.0082	< 0.0082	< 0.0082	< 0.0082	< 0.0082	< 0.0082	< 0.0082	< 0.0082	< 0.0082	< 0.0082	< 0.0082	< 0.0082	< 0.0062
FMW-136	FMW-136-20.0-082218	Soil	20.0	5.1	8/22/2018	0.030	< 0.0084	< 0.0084	0.030	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0063
PH-4	PH-4-4.5-012619	Soil	4.5	22.0	1/26/2019	---	---	---	---	---	---	---	---	---	---	---	---	0.11	0.079	0.10	0.035	0.086	0.013	0.078	**0.14**
PH-11A	PH-11A-4.0-011919	Soil	4.0	20.0	1/19/2019	---	---	---	---	---	---	---	---	---	---	---	---	0.30	0.25	0.31	0.081	0.26	0.031	0.20	**0.39**
PH-12	PH-12-4.0-011919	Soil	4.0	21.0	1/19/2019	---	---	---	---	---	---	---	---	---	---	---	---	120	110	100	31	110	9.9	63	**152**
PH-13	PH-13-3.0-011219	Soil	3.0	20.0	1/12/2019	---	---	---	---	---	---	---	---	---	---	---	---	< 0.0078	< 0.0078	< 0.0078	< 0.0078	< 0.0078	< 0.0078	< 0.0078	< 0.0059
Block 38 East Property																									
ATP-3	ATP-3/S-1	Soil	2.0 - 3.0	NA	8/12/2006	< 0.250	---	---	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	3.2	< 0.250	0.800	2.4	0.550	0.840	0.740	< 0.250	0.850	< 0.250	< 0.250	**0.75**
	ATP-3/S-2	Soil	4.0	NA	8/12/2006	< 0.250	---	---	< 0.250	< 0.250	< 0.250	< 0.250	0.310	0.990	< 0.250	1.0	1.2	0.490	0.490	0.540	< 0.250	0.530	< 0.250	< 0.250	**0.64**
	ATP-3/S-2	Inside of Wood	7.0	NA	8/12/2006	< 0.005	---	---	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.0038
	ATP-3/S-2	Outside of Wood	7.0	NA	8/12/2006	< 0.005	---	---	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.0038
	ATP-3/S-2	Pulp	7.0	NA	8/12/2006	< 0.005	---	---	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.011	< 0.005	0.0069	0.011	0.0072	0.0071	0.0099	< 0.005	0.0068	< 0.005	< 0.005	0.0097
	ATP-3/S-2	Wood + Pulp	7.0	NA	8/12/2006	ND			ND	ND	ND	ND	ND	0.008	ND	0.005	0.008	0.005	0.0052	0.007	ND	0.005	ND	ND	0.0063
ATP-8	ATP-8/S-1	Soil	1.5 - 3.0	NA	8/13/2006	1.8	---	---	1.8	2.5	< 0.500	3.9	4.3	14	2.4	18	17	7.4	7.1	8.6	2.2	7.3	1.0	8.9	**10**
	ATP-8/S-2	Inside of Wood	6.5	NA	8/13/2006	< 0.032	---	---	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	< 0.024
	ATP-8/S-2	Outside of Wood	6.5	NA	8/13/2006	< 0.030	---	---	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.023
	ATP-8/S-2	Pulp	6.5	NA	8/13/2006	< 0.025	---	---	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	0.110	< 0.025	0.120	0.130	0.063	0.050	0.073	0.025	0.058	< 0.025	< 0.025	0.081
	ATP-8/S-2	Wood + Pulp	6.5	NA	8/13/2006	ND			ND	ND	ND	ND	ND	0.059	ND	0.065	0.070	0.034	0.027	0.039	0.014	0.031	ND	ND	0.042
ATP-9	ATP-9/S-1	Soil	1.5 - 3.0	NA	8/13/2006	< 0.050	---	---	< 0.050	< 0.050	< 0.050	0.080	0.140	0.580	< 0.050	0.410	0.710	0.300	0.270	0.300	0.096	0.300	< 0.050	0.110	**0.38**
	ATP-9/S-2	Inside of Wood	6.0	NA	8/13/2006	< 0.025	---	---	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	0.019
	ATP-9/S-2	Outside of Wood	6.0	NA	8/13/2006	< 0.250	---	---	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.19
	ATP-9/S-2	Outside of Wood	6.0	NA	8/13/2006	< 0.025	---	---	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.019
	ATP-9/S-2	Pulp	6.0	NA	8/13/2006	< 0.250	---	---	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.19
	ATP-9/S-2-RE	Pulp	6.0	NA	8/13/2006	< 0.100	---	---	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.076
	ATP-9/S-2	Wood + Pulp	6.0	NA	8/13/2006	ND			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
EX-19-W5 (EL20)	EX-19-W5 (EL20)	Soil	5.0	20.0	7/3/2008	0.07	---	---	0.07	0.42	0.11	0.98	2.0	2.9	0.30	2.3	3.6	1.7	0.97	1.3	0.55	0.88	0.50	0.78	**2.1**
EX-20-W1.5 (EL19.5)	EX-20-W1.5 (EL19.5)	Soil	5.5	19.0	7/3/2008	0.13	---	---	0.13	0.63	0.12	1.5	3.0	4.4	0.42	4.2	5.5	0.75	1.2	2.1	0.75	1.2	0.76	1.2	**1.4**
EX-39-EL23	EX-39-EL23	Soil	1.0	23.0	7/18/2008	< 0.05	---	---	< 0.05	0.13	< 0.05	0.27	0.39	0.51	0.13	0.27	0.0	0.32	0.73	0.23	0.31	0.21	< 0.01	0.18	**0.47**
EX-40-EL22	EX-40-EL22	Soil	2.0	22.0	7/18/2008	6	---	---	**6**	0.61	7.2	40	12	43	4.9	53	53	19	17	17	20	9.4	1.4	5.7	**25**
EX-41-EL22	EX-41-EL22	Soil	3.0	22.0	7/18/2008	0.56	---	---	0.56	0.16	0.49	1.4	1.7	4.1	0.31	3.3	4.7	2.3	2.9	1.3	1.1	2.1	0.62	0.69	**2.98**
MTCA Method A Cleanup Level for Soil [6]									**5**	**4,800[7]**	**NE**	**24,000[7]**	**NE**	**3,200[7]**	**3,200[7]**	**NE**	**2,400[7]**								**0.1**

Table 2
Soil Analytical Results for PAHs
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Sample Location	Sample Identification	Sample Composition	Sample Depth (feet)[1]	Sample Elevation (feet NAVD88)[1]	Sample Date	Analytical Results (milligrams per kilogram)[2]																			
						Non-Carcinogenic PAHs												Carcinogenic PAHs							
						Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Naphthalenes[3,5]	Acenaphthene	Acenaphthylene	Anthracene	Benzo(g,h,i)Perylene	Fluoranthene	Fluorene	Phenanthrene	Pyrene	Benzo(a)Pyrene	Benzo(a)Anthracene	Benzo(b)Fluoranthene	Benzo(j,k)Fluoranthene	Chrysene	Dibenzo(a,h)Anthracene	Indeno(1,2,3-cd)Pyrene	Total cPAHs TEC[4,5]
P-3	P-3-0.5	Soil	0.5	NA	6/12/2002	0.11	0.20	0.20	0.51	0.10	0.029	0.15	0.67	0.83	0.093	0.78	0.97	0.87	0.49	0.66	0.63	0.62	0.21	0.59	**1.1**
	P-3-3.5 (Wet Weight)	Soil/Wood	3.5	NA	6/12/2002	0.023	< 0.0083	< 0.0083	0.023	0.013	0.012	0.014	0.028	0.096	0.013	0.078	0.058	0.037	0.020	0.14	0.083	0.049	< 0.0083	0.017	0.064
	P-3-3.5	Soil/Wood	3.5	NA	6/12/2002	0.057	< 0.021	< 0.021	0.057	0.031	0.029	0.036	0.070	0.24	0.033	0.19	0.15	0.092	0.051	0.34	0.21	0.12	< 0.021	0.042	**0.16**
	P-3-8.5	Soil	8.5	NA	6/12/2002	< 0.013	< 0.013	< 0.013	< 0.039	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.0098
P-4	P-4-3.5	Soil/Wood	3.5	NA	6/12/2002	0.52	0.21	0.36	1.09	0.39	0.39	0.60	1.1	2.4	0.39	3.4	3.5	1.6	1.1	1.1	1.0	1.4	0.34	0.95	**2.1**
	P-4-5.5	Soil/Wood	5.5	NA	6/12/2002	0.055	< 0.025	< 0.025	0.055	0.047	< 0.025	0.067	0.17	0.36	0.042	0.33	0.24	0.21	0.090	0.56	0.48	0.18	0.026	0.12	**0.34**
P-5	P-5-5.5 (Wet Weight)	Wood	5.5	NA	6/12/2002	< 0.0083	< 0.0083	< 0.0083	< 0.0249	< 0.0083	< 0.0083	< 0.0083	< 0.0083	0.028	< 0.0083	0.018	0.018	< 0.0083	< 0.0083	< 0.0083	0.026	0.015	< 0.0083	< 0.0083	< 0.0086
	P-5-5.5	Wood	5.5	NA	6/12/2002	< 0.044	< 0.044	< 0.044	< 0.132	< 0.044	< 0.044	< 0.044	< 0.044	0.15	< 0.044	0.093	0.095	< 0.044	< 0.044	0.58	0.14	0.079	< 0.044	< 0.044	0.10
P-11	P-11-1.5	Soil/Wood	1.5	NA	6/12/2002	0.037	0.024	0.018	0.079	0.11	0.023	0.21	0.51	1.1	0.089	0.92	1.1	0.77	0.40	0.41	0.40	0.48	0.091	0.41	**0.95**
P-12	P-12-1.5	Soil	1.5	NA	6/12/2002	0.41	0.40	0.55	1.36	0.061	0.047	0.15	0.70	0.58	0.048	0.63	0.49	0.67	0.24	0.42	0.46	0.33	0.12	0.49	**0.85**
TP-10-4	TP-10-4	Soil	4.0	NA	5/5/2008	< 0.03	---	---	< 0.03	< 0.03	< 0.03	< 0.03	0.1	0.21	0.04	< 0.03	0.33	0.16	0.17	0.25	0.36	0.29	< 0.03	< 0.03	**0.24**
Block 37 Property																									
MW-71	MW-71-5	Soil	5.0	25.4	10/12/2005	< 0.0891	---	---	< 0.0891	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	MW-71-10	Soil	10.0	20.4	10/12/2005	< 0.0861	---	---	< 0.0861	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	MW-71-15	Soil	15.0	15.4	10/12/2005	< 0.0910	---	---	< 0.0910	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	MW-71-20	Soil	20.0	10.4	10/12/2005	6.49	---	---	**6.49**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-72	MW-72-5	Soil	5.0	25.3	10/12/2005	< 0.0857	---	---	< 0.0857	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	MW-72-10	Soil	10.0	20.3	10/12/2005	< 0.0668	---	---	< 0.0668	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	MW-72-15	Soil	15.0	15.3	10/12/2005	< 0.702	---	---	< 0.702	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	MW-72-20	Soil	20.0	10.3	10/12/2005	< 0.312	---	---	< 0.312	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-73	MW-73-5	Soil	5.0	25.1	10/12/2005	< 0.0960	---	---	< 0.0960	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	MW-73-10	Soil	10.0	20.1	10/12/2005	< 0.0888	---	---	< 0.0888	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	MW-73-16	Soil	15.0	15.1	10/12/2005	< 0.443	---	---	< 0.443	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	MW-73-20	Soil	20.0	10.1	10/12/2005	< 0.100	---	---	< 0.100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-95	MW-95-5	Soil	5.0	27.0	10/19/2005	< 0.102	---	---	< 0.102	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	MW-95-10	Soil	10.0	22.0	10/19/2005	< 0.0923	---	---	< 0.0923	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	MW-95-15	Soil	15.0	17.0	10/19/2005	< 0.0985	---	---	< 0.0985	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MTCA Method A Cleanup Level for Soil [6]									**5**	**4,800[7]**	**NE**	**24,000[7]**	**NE**	**3,200[7]**	**3,200[7]**	**NE**	**2,400[7]**								**0.1**

NOTES:

Results in **bold** denote concentrations exceeding applicable cleanup levels.
--- denotes sample not analyzed.
< denotes analyte not detected at or exceeding the reporting limit listed.
[1]Depth in feet below ground surface. Elevation in feet referenced to North American Vertical Datum of 1988 (NAVD88).
[2]Analyzed by U.S. Environmental Protection Agency Method 8270D/SIM.
[3]Sum of naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene.
[4]Total cPAHs derived using the total toxicity equivalency method in Section 708(8) of Chapter 173-340 of the Washington Administrative Code.
[5]For concentrations reported at less than the laboratory reporting limit, half the reporting limit was used to calculate total. If all constituent concentrations are non-detect, calculated total is indicated non-detect.
[6]Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013, unless otherwise noted.
[7]Washington State Department of Ecology Cleanup Levels and Risk Calculations, under MTCA Standard Method B Formula Values for Soil (Unrestricted Land Use) - Direct Contact (Ingestion Only) and Leaching Pathway, https://fortress.wa.gov/ecy/clarc/Reporting/ChemicalQuery.aspx

Adapt Engineering = Adapt Engineering, Inc.
cPAHs = carcinogenic polycyclic aromatic hydrocarbons
Enviros = Enviros Group, Ltd.
Farallon = Farallon Consulting, L.L.C.
GeoEngineers = GeoEngineers, Inc.
H = sample analyzed outside of holding time
J = result is an estimate
NA = not available
NE = not established
PAHs = polycyclic aromatic hydrocarbons
TEC = toxic equivalent concentration

Table 3
Soil Analytical Results for Select CVOCs
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Sample Location	Sample Identification	Sample Depth (feet)[1]	Sample Elevation (feet NAVD88)[1]	Sample Date	Analytical Results (milligrams per kilogram)[2]							
					PCE	TCE	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,2-Dibromoethane	1,2 Dichloroethane	Methyl Tertiary Butyl Ether (MTBE)
Block 38 West Property												
FB-02	FB-02-10.0-082018	10.0	15.1	8/20/2018	< 0.0028	< 0.0028	< 0.0028	< 0.0028	< 0.0028	---	---	---
	FB-02-25.0-082018	25.0	0.1	8/20/2018	< 0.00085	< 0.00085	< 0.00085	< 0.00085	< 0.00085	---	---	---
FB-04	FB-04-20.0-082118	20.0	2.0	8/21/2018	< 0.00093	< 0.00093	< 0.00093	< 0.00093	< 0.00093	---	---	---
FB-05	FB-05-20.0-082218	20.0	5.5	8/22/2018	< 0.00090	< 0.00090	< 0.00090	< 0.00090	< 0.00090	---	---	---
FMW-135	FMW-135-50.0-082418	50.0	-24.4	8/24/2018	< 0.00074	< 0.00074	< 0.00074	< 0.00074	< 0.00074	---	---	---
FMW-136	FMW-136-10.0-082218	10.0	15.1	8/22/2018	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	---	---	---
	FMW-136-20.0-082218	20.0	5.1	8/22/2018	< 0.00094	< 0.00094	< 0.00094	< 0.00094	< 0.00094	---	---	---
Block 37 Property												
MW-71	MW-71-5	5.0	25.4	10/12/2005	---	---	---	---	---	---	---	< 0.0891
	MW-71-10	10.0	20.4	10/12/2005	---	---	---	---	---	---	---	< 0.0861
	MW-71-15	15.0	15.4	10/12/2005	---	---	---	---	---	---	---	< 0.0910
	MW-71-20	20.0	10.4	10/12/2005	---	---	---	---	---	---	---	< 0.0623
MW-72	MW-72-5	5.0	25.3	10/12/2005	---	---	---	---	---	---	---	< 0.0857
	MW-72-10	10.0	20.3	10/12/2005	---	---	---	---	---	---	---	< 0.0868
	MW-72-15	15.0	15.3	10/12/2005	---	---	---	---	---	---	---	< 0.0912
	MW-72-20	20.0	10.3	10/12/2005	---	---	---	---	---	---	---	< 0.0405
MW-73	MW-73-5	5.0	25.1	10/12/2005	---	---	---	---	---	---	---	< 0.0960
	MW-73-10	10.0	20.1	10/12/2005	---	---	---	---	---	---	---	< 0.0888
	MW-73-16	15.0	15.1	10/12/2005	---	---	---	---	---	---	---	< 0.0576
	MW-73-20	20.0	10.1	10/12/2005	---	---	---	---	---	---	---	< 0.100
MW-95	MW-95-5	5.0	26.99	10/19/2005	---	---	---	---	---	---	---	< 0.102
	MW-95-10	10.0	21.99	10/19/2005	---	---	---	---	---	---	---	< 0.0923
	MW-95-15	15.0	16.99	10/19/2005	---	---	---	---	---	---	---	< 0.0985
MTCA Cleanup Levels for Soil[3]					**0.05**	**0.03**	**160[4]**	**1,600[4]**	**0.67[4]**	**0.0053**	**11[4]**	**0.1[3]**

NOTES:

Results in **bold** denote concentrations exceeding applicable cleanup levels.
— denotes sample not analyzed.
< denotes analyte not detected at or exceeding the reporting limit listed.
'Depth in feet below ground surface. Elevation in feet referenced to North American Vertical Datum of 1988 (NAVD88).

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

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

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

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

CVOC = chlorinated volatile organic compound
PCE = tetrachloroethene
TCE = trichloroethene

Table 4
Soil Analytical Results for Metals
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Sample Location	Sample Identification	Sample Depth (feet) [1]	Sample Elevation (feet NAVD88) [1]	Sample Date	Analytical Results (milligrams per kilogram)[2]							
					Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
Block 38 West Property												
FB-01	FB-01-15.0-082118	15.0	11.3	8/21/2018	< 16	110	< 0.81	60	< 8.1	< 0.40	< 16	< 1.6
FB-02	FB-02-10.0-082018	10.0	15.1	8/20/2018	< 12	190	< 1.2	36	24	1.2	< 12	< 2.5
FB-03	FB-03-10.0-082318	10.0	15.8	8/23/2018	< 13	230	< 0.65	100	8.9	< 0.32	< 13	< 1.3
	FB-03-35.0-082318	35.0	-9.2	8/23/2018	< 12	44	< 0.60	42	< 6.0	< 0.30	< 12	< 1.2
FB-04	FB-04-5.0-082118	5.0	17.0	8/21/2018	< 11	290	< 1.1	53	56	< 0.55	< 11	< 2.2
FB-05	FB-05-35.0-082218	35.0	-9.5	8/22/2018	< 12	58	< 0.62	38	< 6.2	< 0.31	< 12	< 1.2
FMW-133	FMW-133-10.0-082418	10.0	15.3	8/24/2018	< 17	200	< 1.7	29	18	< 0.83	< 17	< 3.3
	FMW-133-20.0-082418	20.0	5.3	8/24/2018	< 12	50	< 0.60	27	< 6.0	< 0.30	< 12	< 1.2
FMW-134	FMW-134-5.0-082318	5.0	20.4	8/23/2018	< 17	110	< 1.7	19	< 17	< 0.83	< 17	< 3.3
	FMW-134-15.0-082318	15.0	10.4	8/23/2018	< 12	48	< 0.61	42	< 6.1	< 0.30	< 12	< 1.2
FMW-135	FMW-135-5.0-082418	5.0	20.6	8/24/2018	< 12	120	< 0.61	48	16	< 0.31	< 12	< 1.2
	FMW-135-25.0-082418	25.0	0.6	8/24/2018	< 14	120	< 0.69	60	< 6.9	< 0.35	< 14	< 1.4
	FMW-135-30.0-082418	30.0	-4.4	8/24/2018	< 12	66	< 0.62	44	< 6.2	< 0.31	< 12	< 1.2
FMW-136	FMW-136-20.0-082218	20.0	5.1	8/22/2018	< 13	46	< 0.63	42	< 6.3	< 0.32	< 13	< 1.3
	FMW-136-30.0-082218	30.0	-4.9	8/22/2018	< 12	45	< 0.59	41	< 5.9	< 0.30	< 12	< 1.2
Block 38 East Property												
B-3	B-3	10.0	8.3	10/11/1993	---	---	---	---	16	---	---	---
B-6 (a)	B-6 (a)	8.0	8.8	10/11/1993	---	---	---	---	68	---	---	---
EX-19-W5 (EL20)	EX-19-W5 (EL20)	5.0	20.0	7/3/2008	---	---	< 2.0	---	64	---	---	---
EX-20-W1.5 (EL19.5)	EX-20-W1.5 (EL19.5)	5.5	19.5	7/3/2008	---	---	< 2.0	---	120	---	---	---
EX-39-EL23	EX-39-EL23	1.0	23.0	7/18/2008	---	---	< 2.0	---	86	---	---	---
EX-40-EL22	EX-40-EL22	2.0	22.0	7/18/2008	---	---	< 2.0	---	**1,800**	---	---	---
EX-41-EL22	EX-41-EL22	3.0	22.0	7/18/2008	---	---	< 2.0	---	**1,200**	---	---	---
P-3	P-3-0.5	0.5	NA	6/12/2002	---	---	< 0.57	---	5.9	---	---	---
	P-3-3.5	3.5	NA	6/12/2002	---	---	< 1.3	---	150	---	---	---
	P-3-3.5 (Wet Weight)	3.5	NA	6/12/2002	---	---	< 0.50	---	59	---	---	---
	P-3-8.5	8.5	NA	6/12/2002	---	---	< 1.2	---	39	---	---	---
P-4	P-4-3.5	3.5	NA	6/12/2002	---	---	**2.1**	---	**1,500**	---	---	---
	P-4-5.5	5.5	NA	6/12/2002	---	---	< 1.5	---	200	---	---	---
P-5	P-5-5.5	5.5	NA	6/12/2002	---	---	< 2.6	---	< 26	---	---	---
	P-5-5.5 (Wet Weight)	5.5	NA	6/12/2002	---	---	< 0.50	---	< 5.0	---	---	---
P-11	P-11-1.5	1.5	NA	6/12/2002	---	---	< 0.78	---	130	---	---	---
P-12	P-12-1.5	1.5	NA	6/12/2002	---	---	< 0.67	---	43	---	---	---
TP-10-4	TP-10-4	4.0	NA	5/5/2008	---	---	**2.4**	---	**1,900**	---	---	---
W-3	W-3	10.0	10.5	10/11/1993	---	---	---	---	18	---	---	---
W-4	W-4	11.0	9.5	10/11/1993	---	---	---	---	2.4	---	---	---
MTCA Cleanup Levels for Soil [3]					**20**	**16,000[4]**	**2**	**2,000**	**250**	**2**	**400[4]**	**400[4]**

Table 4
Soil Analytical Results for Metals
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Sample Location	Sample Identification	Sample Depth (feet) [1]	Sample Elevation (feet NAVD88) [1]	Sample Date	Analytical Results (milligrams per kilogram)[2]							
					Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
Block 37 Property												
MW-41	MW-41-3	7.5	19.5	10/28/1991	---	---	---	---	---	---	---	---
	MW-41-7	17.5	9.5	10/28/1991	---	---	---	---	---	---	---	---
MW-71	MW-71-5	5.0	25.4	10/12/2005	---	---	---	---	2.73	---	---	---
	MW-71-10	10.0	20.4	10/12/2005	---	---	---	---	5.39	---	---	---
	MW-71-15	15.0	15.4	10/12/2005	---	---	---	---	4.43	---	---	---
	MW-71-20	20.0	10.4	10/12/2005	---	---	---	---	7.1	---	---	---
MW-72	MW-72-5	5.0	25.3	10/12/2005	---	---	---	---	3.58	---	---	---
	MW-72-10	10.0	20.3	10/12/2005	---	---	---	---	5.42	---	---	---
	MW-72-15	15.0	15.3	10/12/2005	---	---	---	---	124	---	---	---
	MW-72-20	20.0	10.3	10/12/2005	---	---	---	---	20.9	---	---	---
MW-73	MW-73-5	5.0	25.1	10/12/2005	---	---	---	---	5.62	---	---	---
	MW-73-10	10.0	20.1	10/12/2005	---	---	---	---	3.54	---	---	---
	MW-73-16	15.0	15.1	10/12/2005	---	---	---	---	71.9	---	---	---
	MW-73-20	20.0	10.1	10/12/2005	---	---	---	---	20.9	---	---	---
MW-95	MW-95-5	5.0	27.0	10/19/2005	---	---	---	---	4.02	---	---	---
	MW-95-10	10.0	22.0	10/19/2005	---	---	---	---	5.4	---	---	---
	MW-95-15	15.0	17.0	10/19/2005	---	---	---	---	16.8	---	---	---
MTCA Cleanup Levels for Soil [3]					**20**	**16,000[4]**	**2**	**2,000**	**250**	**2**	**400[4]**	**400[4]**

NOTES:

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

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

— denotes sample not analyzed.

NA = not available

[1]Depth in feet below ground surface. Elevation in feet referenced to North American Vertical Datum of 1988 (NAVD88).

[2]Analyzed by U.S. Environmental Protection Agency Methods 6010D/7471B.

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

[4]Washington State Department of Ecology Cleanup Levels and Risk Calculations, under MTCA Standard Method B Formula Values for Soil (Unrestricted Land Use) - Direct Contact (Ingestion Only) and Leaching Pathway, https://fortress.wa.gov/ecy/clarc/Reporting/ChemicalQuery.aspx

Table 5
Groundwater Elevations
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Location	Screened Interval (feet bgs)[1]	Screened Interval (feet NAVD88)[2]	Top of Casing Elevation (feet NAVD88)[2]	Monitoring Date	Depth to Water (feet)[3]	Water Level Elevation (feet NAVD88)[2]
FMW-130	45.0 to 55.0	-22.8 to -32.8	21.86	8/30/2018	5.14	16.72
				12/28/2018	4.98	16.88
				3/26/2019	4.42	17.44
FMW-132	5.0 to 10.0	20.7 to 15.7	25.48	8/30/2018	7.44	18.04
				12/28/2018	6.80	18.68
				3/26/2019	7.01	18.47
FMW-133	6.5 to 11.5	18.8 to 13.8	24.87	8/30/2018	6.86	18.01
				12/28/2018	6.21	18.66
				3/26/2019	6.41	18.46
FMW-134	12.0 to 17.0	13.4 to 8.4	24.98	8/30/2018	8.66	16.32
				12/28/2018	7.80	17.18
				3/26/2019	7.51	17.47
FMW-135	7.0 to 12.0	18.6 to 13.6	25.29	8/30/2018	7.14	18.15
				12/28/2018	6.78	18.51
				3/26/2019	6.81	18.48
FMW-136	30.0 to 40.0	-4.9 to -14.9	24.79	8/30/2018	8.10	16.69
				12/28/2018	7.74	17.05
				3/26/2019	7.41	17.38
FMW-137	72.0 to 85.0	-41.9 to -54.9	30.09	11/20/2018	13.02	8.84
				12/28/2018	12.74	9.12
				3/14/2019	12.56	9.30
				5/6/2019	12.08	9.78
				7/8/2019	12.25	9.61
FMW-138	90.0 to 100.0	-49.96 to -59.96	40.44	11/20/2018	24.50	-24.50
				12/28/2018	24.38	-24.38
				3/14/2019	24.14	-24.14
				5/6/2019	23.80	-23.80
				7/8/2019	23.84	-23.84

NOTES:

[1]Depth in feet below ground surface.

bgs = below ground surface

[2]In feet referenced to North American Vertical Datum of 1988 (NAVD88).

[3]In feet below top of well casing.

Table 6
Groundwater Analytical Results for TPH and BTEX
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Sample Location	Sample Date	Sample Identification	Screened Interval (feet NAVD88)[1]	Analytical Results (micrograms per liter)							
				DRO[2]	ORO[2]	GRO[3]	Kerosone	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Xylenes[4]
Block 38 West Property											
Reconnaissance Groundwater Samples from Borings											
FB-03	8/23/2018	FB-03-082318	8.8 to 3.8	**660**	490	< 100	---	< 1.0	< 1.0	< 1.0	< 2.0
FB-05	8/22/2018	FB-05-082218	8.5 to 3.5	< 260	< 410	< 100	---	< 1.0	< 1.0	< 1.0	< 2.0
FMW-130	7/21/2014	F-MW-130-GW1-072114	7.2 to 2.2	---	---	**2,100** T	---	**5.1**	7.5	2.2	6.7
Groundwater Samples from Monitoring Wells											
FMW-130	7/24/2014	F-MW-130-072414	-22.8 to -32.8	---	---	< 100	---	< 1.0	< 1.0	< 1.0	< 2.0
	7/3/2017	FMW-130-070317		---	---	< 100	---	< 0.20	< 1.0	< 0.20	< 0.60
	8/30/2018	FMW-130-083018		< 250	< 410	< 100	---	< 0.20	< 1.0	< 0.20	< 0.60
	12/28/2018	FMW130-122818		< 260	< 410	< 100	---	< 0.20	< 1.0	< 0.20	< 0.60
	3/26/2019	FMW-130-032619		< 250	< 400	< 100	---	< 1.0	< 1.0	< 1.0	< 2.0
FMW-132	8/30/2018	FMW-132-083018	20.7 to 15.7	260	< 400	< 100	---	< 0.20	< 1.0	< 0.20	< 0.60
	12/28/2018	FMW132-122818		< 260	< 410	< 100	---	< 0.20	< 1.0	< 0.20	< 0.60
	3/26/2019	FMW-132-032619		< 250	< 400	< 100	---	< 1.0	< 1.0	< 1.0	< 2.0
FMW-133	8/30/2018	FMW-133-083018	18.8 to 13.8	270	< 410	< 100	---	< 0.20	< 1.0	< 0.20	< 0.60
	12/28/2018	FMW133-122818		310	< 410	< 100	---	< 0.20	< 1.0	< 0.20	< 0.60
	3/26/2019	FMW-133-032619		280	< 400	< 100	---	< 1.0	< 1.0	< 1.0	< 2.0
FMW-134	8/30/2018	FMW-134-083018	13.4 to 8.4	**1,000** M	< 410	**1,100** Z	---	< 1.0	< 5.0	< 1.0	< 3.0
	12/28/2018	FMW134-122818		**560**	< 410	< 100	---	< 0.20	< 1.0	< 0.20	< 0.60
	12/28/2018	FMW500-122818		**680**	490	< 100	---	< 0.20	< 1.0	< 0.20	< 0.60
	3/26/2019	FMW-134-032619		**540** M	< 400	140 Z	---	< 1.0	< 1.0	< 1.0	< 2.0
FMW-135	8/30/2018	FMW-135-083018	18.6 to 13.6	< 260	< 410	< 100	---	< 0.20	< 1.0	< 0.20	< 0.60
	12/28/2018	FMW135-122818		370	< 410	< 100	---	< 0.20	< 1.0	< 0.20	< 0.60
	3/26/2019	FMW-135-032619		< 250	< 410	< 100	---	< 1.0	< 1.0	< 1.0	< 2.0
FMW-136	8/30/2018	FMW-136-083018	-4.9 to -14.9	< 250	< 400	< 100	---	< 0.20	< 1.0	< 0.20	< 0.60
	12/28/2018	FMW136-122818		< 260	< 410	< 100	---	< 0.20	< 1.0	< 0.20	< 0.60
	3/26/2019	FMW-136-032619		< 250	< 410	< 100	---	< 1.0	< 1.0	< 1.0	< 2.0
Potable Water Sample											
Potable Well	8/21/2018	POTABLE-082118	Unknown	---	---	---	---	< 0.20	< 1.0	< 0.20	< 0.60
Block 38 East Property											
MW-1	1/4/1999	MW-1	Unknown	< 300	< 500	< 100	---	< 1.0	< 1.0	< 1.0	< 1.0
MTCA Method A Cleanup Level for Groundwater[4]				**500**	**500**	**800/1,000[5]**	**500**	**5**	**1,000**	**700**	**1,000**

Table 6
Groundwater Analytical Results for TPH and BTEX
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Sample Location	Sample Date	Sample Identification	Screened Interval (feet NAVD88)[1]	Analytical Results (micrograms per liter)							
				DRO[2]	ORO[2]	GRO[3]	Kerosone	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Xylenes[4]
Block 37 Property											
Groundwater Samples from Monitoring Wells											
MW-41	11/5/1991	MW-41	22.0 to 7.0	< 1,000	---	< 1,000	---	**67**	< 0.5	< 0.5	< 0.5
	12/29/1993	MW-41		< 250	< 750	< 100	---	4.6	< 0.5	< 0.5	< 0.5
	7/14/1994	MW-41		< 250	< 750	< 100	---	**10**	< 0.5	< 0.5	< 0.5
	10/25/1994	MW-41		500	< 750	< 50	---	< 0.5	< 0.5	< 0.5	< 1.0
	3/8/1995	MW-41		< 250	< 750	< 50	---	1.6	< 0.5	< 0.5	< 1.0
	6/6/1995	MW-41		< 250	< 750	< 50	---	< 0.5	< 0.5	< 0.5	< 1.0
	9/7/1995	MW-41		< 250	< 750	< 50	---	< 0.5	< 0.5	< 0.5	< 1.0
	12/8/1995	MW-41		< 250	< 750	< 50	---	< 0.5	< 0.5	< 0.5	< 1.0
	4/1/1996	MW-41		< 250	< 750	< 50	---	< 0.5	< 0.5	< 0.5	< 1.0
	6/25/1996	MW-41		< 250	< 750	< 50	---	< 0.5	< 0.5	< 0.5	< 1.00
	9/27/1996	MW-41		< 250	< 750	< 50	---	< 0.5	< 0.5	< 0.5	< 1.00
	6/2/2005	MW-41		< 237	< 474	< 100	---	< 1	< 1	< 1	< 2
	7/26/2005	MW-41		258	**977**	< 50	---	< 0.2	< 0.2	< 0.2	< 0.50
	11/2/2005	MW-41		< 238	< 476	< 50	---	< 0.5	< 0.5	< 0.5	< 3.00
	2/23/2006	MW-41		< 250	< 500	< 50	---	< 0.5	< 0.5	< 0.5	< 3.00
	5/9/2006	MW-41		< 253	< 505	< 50	---	< 0.5	< 0.5	< 0.5	< 3.00
	8/30/2006	MW-41		< 240	< 481	< 80	---	< 0.5	< 0.5	< 0.5	< 3.00
	12/12/2006	MW-41		< 243	< 485	< 50	---	< 0.5	< 0.5	< 0.5	< 3.00
	3/7/2007	MW-41		< 263	< 526	< 50	---	< 0.5	< 0.5	< 0.5	< 3.00
	6/14/2007	MW-41		< 236	< 472	79.2	---	< 0.5	< 0.5	< 0.5	< 3.00
	9/13/2007	MW-41		< 236	< 472	< 50	---	< 0.5	< 0.5	< 0.5	< 3.00
	12/18/2007	MW-41		< 236	< 472	< 50	---	< 1	< 1	< 1	< 3
	3/17/2008	MW-41		< 236	< 472	< 50	< 1	< 236	< 0.5	< 0.5	< 0.5
	6/3/2008	MW-41		< 236	< 472	< 50	< 236	< 0.5	< 0.5	< 0.5	< 3
	8/4/2008	MW-41		< 236	< 472	< 50	< 236	< 0.5	< 0.5	< 0.5	< 3
	11/4/2008	MW-41		< 245	< 490	< 50.0	< 245	< 0.500	< 0.500	< 0.500	< 3.00
	2/24/2009	MW-41		< 240	< 481	< 50.0	< 240	< 0.500	< 0.500	< 0.500	< 3.00
	5/17/2009	MW-41		< 250	< 500	< 50.0	< 250	< 0.500	< 0.500	< 0.500	< 3.00
	8/16/2009	MW-41		470	< 480	< 50	< 240	< 0.50	< 0.50	< 0.50	< 2.0
	11/15/2009	MW-41		< 280	< 560	< 50	< 280	< 0.50	< 0.50	< 0.50	< 2.0
	2/21/2010	MW-41		98.4	< 379	< 50.0	< 75.8	< 1.0	< 1.0	< 1.0	< 3.0
	5/23/2010	MW-41		< 76.9	< 385	< 50.0	< 76.9	< 1.0	< 1.0	< 1.0	< 3.0
	11/15/2010	MW-41		< 77.7	< 388	< 50.0	< 77.7	< 1.0	1.8	< 1.0	< 3.0
	2/28/2011	MW-41		< 77.7	< 388	< 50.0	< 77.7	< 1.0	< 1.0	< 1.0	< 3.0
	6/14/2011	MW-41		< 82.5	< 412	< 50.0	---	< 1.0	< 1.0	< 1.0	< 3.0
	8/29/2011	MW-41		< 84.2	< 421	< 50.0	< 84.2	< 1.0	< 1.0	< 1.0	< 3.0
	12/5/2011	MW-41		< 85.1	< 426	< 50.0	< 85.1	< 1.0	< 1.0	< 1.0	< 3.0
	2/15/2012	MW-41		< 76.2	< 381	< 50.0	< 76.2	< 1.0	< 1.0	< 1.0	< 3.0
	5/16/2012	MW-41		< 81.6	< 408	< 50.0	< 81.6	< 1.0	< 1.0	< 1.0	< 3.0
	8/14/2012	MW-41		< 88.9	< 444	< 50.0	< 88.9	< 1.0	< 1.0	< 1.0	< 3.0
MTCA Method A Cleanup Level for Groundwater[4]				**500**	**500**	**800/1,000[5]**	**500**	**5**	**1,000**	**700**	**1,000**

Table 6
Groundwater Analytical Results for TPH and BTEX
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Sample Location	Sample Date	Sample Identification	Screened Interval (feet NAVD88)[1]	Analytical Results (micrograms per liter)							
				DRO[2]	ORO[2]	GRO[3]	Kerosone	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Xylenes[4]
MW-71	11/3/2005	MW-71	25.42 to 10.42	**5,880**	< 472	**18,100**	---	**240**	59.3	**925**	**1,750**
	2/23/2006	MW-71		**1,770**	< 485	**21,800**	---	**190**	28	**848**	**1,710**
	5/10/2006	MW-71		**733**	< 495	**25,100**	---	**195**	< 20	**803**	**1,338**
	8/29/2006	MW-71		**664**	< 476	**15,400**	---	**207**	4.61	698	834
	12/12/2006	MW-71		**609**	< 476	**11,300**	---	**127**	68.2	237	512
	3/7/2007	MW-71		**567**	< 490	**22,100**	---	**211**	< 20	**836**	**1,220**
	6/14/2007	MW-71		**851**	< 490	**19,200**	---	**186**	2.67	647	667
	9/14/2007	MW-71		**901**	< 485	**7,230**	---	**128**	2	329	122
	12/17/2007	MW-71		**823**	< 472	**16,500**	---	**200**	17	600	694
	3/17/2008	MW-71		**1,070**	< 472	**15,900**	< 1	**5,710**	124	2.7	454
	6/2/2008	MW-71		**566**	< 472	**9,480**	**4,280**	**94**	24.5	291	328
	8/4/2008	MW-71		**550**	< 472	**4,140**	**1,860**	**31.7**	1.06	103	62.3
	11/3/2008	MW-71		**524**	< 485	**5,820**	**2,450**	**49.2**	1.03	69	10.4
	2/23/2009	MW-71		**828**	< 481	**11,600**	**4,340**	**136**	2.3	358	213
	5/17/2009	MW-71		**1,380**	< 481	**13,400**	**5,820**	**104**	2.38	260	201
	8/16/2009	MW-71		**660**	< 480	**2,300**	**1,700**	**37**	< 0.50	56	14
	11/15/2009	MW-71		**940**	< 470	**2,500**	**1,100**	**6.2**	0.6	25	6.5
	2/21/2010	MW-71		**3,990**	**4,500**	**6,390**	**4,980**	**97.1**	1.9	403	101
	5/23/2010	MW-71		**3,860**	**4,440**	**2,550**	**4,410**	**39.7**	3.8	84	12.7
	8/15/2010	MW-71		**912**	**729**	**5,130**	**2,710**	**99.1**	< 1.0	148	12.1
	11/14/2010	MW-71		**541**	**2,600**	244	267	< 1.0	1.8	< 1.0	< 3.0
MW-72	11/3/2005	MW-72	25.32 to 10.32	< 236	< 472	71.3	---	0.98	< 0.5	< 0.500	2.32
	2/23/2006	MW-72		408	< 500	**1,900**	---	**11**	1.22	98.2	25.3
	5/10/2006	MW-72		< 250	< 500	**1,540**	---	**8.2**	1.12	70.4	< 6
	8/29/2006	MW-72		< 253	< 505	**810**	---	**6.28**	< 0.5	10.2	< 3
	12/12/2006	MW-72		< 250	< 500	**970**	---	3.29	< 0.5	1.95	< 3
	3/7/2007	MW-72		< 260	< 521	560	---	**5.45**	0.59	38.5	< 3
	6/14/2007	MW-72		< 255	< 510	**1,140**	---	**5.29**	< 0.5	2.72	< 3
	9/14/2007	MW-72		< 250	< 500	239	---	1.76	< 0.5	< 0.500	< 3
	12/17/2007	MW-72		< 238	< 476	489	---	1.8	< 1	< 1.00	< 2
	3/17/2008	MW-72		< 236	< 472	**983**	< 1	**407**	3.3	< 0.5	4.34
	6/2/2008	MW-72		< 238	< 476	**1,160**	474	2.89	< 0.5	4.77	< 3
	8/4/2008	MW-72		< 236	< 472	330	247	0.81	< 0.5	< 0.5	< 3
	11/3/2008	MW-72		< 243	< 485	577	278	< 0.500	< 0.500	< 0.500	< 3.00
	2/23/2009	MW-72		< 243	< 485	780	**3,130**	< 0.500	< 0.500	< 0.500	< 3.00
	5/17/2009	MW-72		**634**	< 476	786	**962**	3.55	< 0.500	24.1	< 3.00
	8/16/2009	MW-72		< 240	< 490	170	< 240	< 0.50	< 0.50	0.82	< 2.0
	11/15/2009	MW-72		430	**2,500**	110	< 240	< 0.50	0.77	< 0.50	< 2.0
	2/21/2010	MW-72		**1,810**	**1,720**	258	**803**	< 1.0	1.7	< 1.0	< 3.0
	5/23/2010	MW-72		**6,100**	**2,250**	329	**5,630**	2.3	< 1.0	< 1.0	< 3.0
	8/15/2010	MW-72		**641**	**3,460**	330	236	1.4	< 1.0	3.1	< 3.0
	11/14/2010	MW-72		159	**749**	261	147	< 1.0	< 1.0	1.6	< 3.0
MTCA Method A Cleanup Level for Groundwater[4]				**500**	**500**	**800/1,000[5]**	**500**	**5**	**1,000**	**700**	**1,000**

Table 6
Groundwater Analytical Results for TPH and BTEX
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Sample Location	Sample Date	Sample Identification	Screened Interval (feet NAVD88)[1]	Analytical Results (micrograms per liter)							
				DRO[2]	ORO[2]	GRO[3]	Kerosone	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Xylenes[4]
MW-73	11/3/2005	MW-73	25.11 to 10.11	249	< 472	**1,070**	---	**23.1**	1.74	3.58	4.74
	2/23/2006	MW-73		**731**	< 500	**2,420**	---	**13.2**	2.13	4.52	< 3
	4/10/2006	MW-73		< 236	< 472	**2,460**	---	**9.56**	2.19	4.51	2.44
	8/29/2006	MW-73		< 236	< 472	**1,130**	---	**12.6**	2.4	1.89	< 3
	12/12/2006	MW-73		< 243	< 485	**2,360**	---	**14.5**	2.01	4.32	< 3
	3/7/2007	MW-73		< 236	< 472	**2,260**	---	**17.5**	1.47	2.72	3.11
	6/14/2007	MW-73		< 260	< 521	**2,450**	---	**11.6**	1.56	2.63	< 3
	9/14/2007	MW-73		< 236	< 472	**1,380**	---	**12.1**	1.88	0.65	< 3
	12/17/2007	MW-73		< 236	< 472	**2,390**	---	**18**	1.4	3.3	1.4
	3/17/2008	MW-73		< 238	< 476	**2,670**	1.17	**707**	10.1	1.35	2.16
	6/2/2008	MW-73		< 236	< 472	**2,260**	**767**	**15.8**	0.76	1.14	< 3
	8/4/2008	MW-73		< 236	< 472	**1,250**	465	**10.3**	1.15	< 0.5	< 3
	11/3/2008	MW-73		< 243	< 485	**1,790**	466	**21.3**	1.38	< 0.500	< 3.00
	2/23/2009	MW-73		< 240	< 481	**2,800**	**7,510**	**25.6**	2.05	1.59	< 3.00
	5/17/2009	MW-73		< 243	< 485	**1,510**	430	**9.97**	1	0.73	< 3.00
	8/16/2009	MW-73		430	< 480	**1,200**	**1,100**	5	< 0.50	< 0.50	< 2.0
	11/15/2009	MW-73		**1,100**	< 480	**2,700**	**1,500**	**26**	2	3.8	< 2.0
	2/21/2010	MW-73		**946**	**624**	**2,190**	**1,110**	**39**	2.4	3.3	6.9
	5/23/2010	MW-73		**1,030**	**659**	**2,260**	**1,670**	**31.2**	2.2	2.1	< 3.0
	8/15/2010	MW-73		173	< 392	**1,960**	**671**	**37.3**	1.8	1.7	< 3.0
	11/14/2010	MW-73		407	**1,670**	**1,410**	**733**	**26**	3.4	< 1.0	< 3.0
MW-95	11/2/2005	MW-95	Unknown	< 236	< 472	545	---	1	1	1	10
	2/23/2006	MW-95		240	< 481	278	---	**10**	6	8	19
	5/9/2006	MW-95		< 255	< 510	326	---	3	1	1	16
	8/30/2006	MW-95		< 248	< 495	94.3	---	---	---	---	---
	12/12/2006	MW-95		< 243	< 485	**1,330**	---	**53**	15	33	119
	3/7/2007	MW-95		< 250	< 500	60.2	---	4	< 0.5	1	11
	6/14/2007	MW-95		< 236	< 472	215	---	4	< 0.5	2	42
	9/13/2007	MW-95		< 238	< 476	< 50.0	---	< 0.5	< 0.5	< 0.500	< 3
	12/18/2007	MW-95		< 238	< 476	< 50	---	< 1	< 1	< 1	< 3
	3/17/2008	MW-95		< 236	< 472	< 50	< 1	< 236	< 0.5	< 0.5	< 0.5
	6/3/2008	MW-95		< 236	< 472	< 50	< 236	< 0.5	< 0.5	< 0.5	< 3
	8/4/2008	MW-95		< 236	< 472	< 50	< 236	< 0.5	< 0.5	< 0.5	< 3
	11/4/2008	MW-95		< 248	< 495	< 50.0	< 248	< 0.500	< 0.500	< 0.500	< 3.00
	2/24/2009	MW-95		< 240	< 481	< 50.0	< 240	< 0.500	< 0.500	< 0.500	< 3.00
	5/17/2009	MW-95		< 240	< 481	< 50.0	< 240	< 0.500	< 0.500	< 0.500	< 3.00
	8/16/2009	MW-95		< 240	< 480	< 50	< 240	< 0.50	< 0.50	< 0.50	< 2.0
	11/15/2009	MW-95		< 240	< 480	110	< 240	< 0.50	< 0.50	< 0.50	< 2.0
	2/21/2010	MW-95		202	< 388	< 50.0	< 77.7	< 1.0	< 1.0	< 1.0	< 3.0
	5/23/2010	MW-95		80	< 392	< 50.0	83.2	< 1.0	< 1.0	< 1.0	< 3.0
	8/16/2010	MW-95		< 78.4	< 392	56.5	< 78.4	< 1.0	< 1.0	< 1.0	5
	11/15/2010	MW-95		< 77.7	< 388	85.7	97	< 1.0	< 1.0	< 1.0	24
MTCA Method A Cleanup Level for Groundwater[4]				**500**	**500**	**800/1,000[5]**	**500**	**5**	**1,000**	**700**	**1,000**

NOTES:

Results in **bold** denote concentrations exceeding applicable cleanup levels.
< denotes analyte not detected at or exceeding the reporting limit listed.
— denotes sample not analyzed.

[1]In feet referenced to North American Vertical Datum of 1988 (NAVD88).
[2]Analyzed by Northwest Method NWTPH-Dx.
[3]Analyzed by Northwest Method NWTPH-Gx.
[4]Analyzed by U.S. Environmental Protection Agency Method 8021B.
[5]Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Cleanup Levels for Groundwater, Table 721-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as amended 2013.
[6]Cleanup level is 800 micrograms per liter if benzene is detected and 1,000 micrograms per liter if benzene is not detected.

BTEX = benzene, toluene, ethylbenzene, and xylenes
DRO = total petroleum hydrocarbons (TPH) as diesel-range organics
GRO = TPH as gasoline-range organics
M = hydrocarbons in the gasoline range are impacting the diesel-range result
ORO = TPH as oil-range organics
T = the sample chromatogram is not similar to a typical gas
Z = the gasoline result is mainly attributed to a single peak (naphthalene)

Table 7
Groundwater Analytical Results for PAHs
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Sample Location	Sample Date	Sample Identification	Screened Interval (feet NAVD88)[1]	Analytical Results (micrograms per liter)[2]																		
				Non-Carcinogenic PAHs											Carcinogenic PAHs							
				Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Naphthalenes[3]	Acenaphthene	Acenaphthylene	Anthracene	Benzo(g,h,i)Perylene	Fluoranthene	Fluorene	Phenanthrene	Pyrene	Benzo(a)pyrene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(j,k)Fluoranthene	Chrysene	Dibenzo(a,h)Anthracene	Indeno(1,2,3-cd)Pyrene	Total cPAHs TEC[4,5]
Block 38 West Property																						
Reconnaissance Groundwater Samples from Borings																						
FB-03	8/23/2018	FB-03-082318	8.8 to 3.8	< 1.3	---	---	< 1.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
FMW-130	7/21/2014	F-MW-130-GW1-072114	7.2 to 2.2	650 J	---	---	**650**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Groundwater Samples from Monitoring Wells																						
FMW-130	8/30/2018	FMW-130-083018	-22.8 to -32.8	< 0.097	< 0.097	< 0.097	< 0.291	< 0.097	< 0.097	< 0.097	< 0.0097	< 0.097	< 0.097	< 0.097	< 0.097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0073
	12/28/2018	FMW130-122818		< 0.11	< 0.11	< 0.11	< 0.33	< 0.11	< 0.11	< 0.11	< 0.011	< 0.11	< 0.11	< 0.11	< 0.11	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.0083
	3/26/2019	FMW-130-032619		---	---	---	---	---	---	---	---	---	---	---	---	< 0.011	0.015	0.011	< 0.011	0.015	< 0.011	< 0.011	0.0099
FMW-132	8/30/2018	FMW-132-083018	20.7 to 15.7	< 0.096	< 0.096	< 0.096	< 0.288	0.40	< 0.096	< 0.096	< 0.0096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0072
	12/28/2018	FMW132-122818		< 0.10	< 0.10	< 0.10	< 0.30	0.29	< 0.10	< 0.10	< 0.010	< 0.10	< 0.10	< 0.10	< 0.10	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.0076
	3/26/2019	FMW-132-032619		---	---	---	---	---	---	---	---	---	---	---	---	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.0076
FMW-133	8/30/2018	FMW-133-083018	18.8 to 13.8	< 0.097	< 0.097	< 0.097	< 0.291	0.38	< 0.097	< 0.097	< 0.0097	< 0.097	0.098	< 0.097	< 0.097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0073
	12/28/2018	FMW133-122818		< 0.10	< 0.10	< 0.10	< 0.30	0.33	< 0.10	< 0.10	< 0.010	< 0.10	< 0.10	< 0.10	< 0.10	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.0076
	3/26/2019	FMW-133-032619		---	---	---	---	---	---	---	---	---	---	---	---	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.0083
FMW-134	8/30/2018	FMW-134-083018	13.4 to 8.4	290	10	12	**312**	8.3	0.12	< 0.099	< 0.0099	< 0.099	1.6	0.48	< 0.099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0075
	12/28/2018	FMW134-122818		23	0.67	0.77	25	0.71	< 0.11	< 0.11	< 0.011	< 0.11	< 0.11	< 0.11	< 0.11	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.0083
	12/28/2018	FMW500-122818		62	1.7	2.3	66	1.6	< 0.10	< 0.10	< 0.010	< 0.10	0.15	< 0.10	< 0.10	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.0076
	3/26/2019	FMW-134-032619		---	---	---	---	---	---	---	---	---	---	---	---	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.0076
FMW-135	8/30/2018	FMW-135-083018	18.6 to 13.6	0.35	0.68	0.29	1.32	0.39	< 0.096	< 0.096	< 0.0096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0072
	12/28/2018	FMW135-122818		< 0.099	0.45	0.11	0.56	0.33	< 0.099	< 0.099	< 0.0099	< 0.099	< 0.099	< 0.099	< 0.099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0075
	3/26/2019	FMW-135-032619		---	---	---	---	---	---	---	---	---	---	---	---	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.0083
FMW-136	8/30/2018	FMW-136-083018	-4.9 to -14.9	0.39	< 0.096	< 0.096	0.39	< 0.096	< 0.096	< 0.096	< 0.0096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0072
	12/28/2018	FMW136-122818		< 0.10	< 0.10	< 0.10	< 0.30	< 0.10	< 0.10	< 0.10	< 0.010	< 0.10	< 0.10	< 0.10	< 0.10	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.0076
	3/26/2019	FMW-136-032619		---	---	---	---	---	---	---	---	---	---	---	---	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.0076
MTCA Method A Cleanup Level for Groundwater [6]							**160**	**960[7]**		**4,800[7]**		**640[7]**	**640[7]**		**480[7]**							**0.1**

Table 7
Groundwater Analytical Results for PAHs
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Sample Location	Sample Date	Sample Identification	Screened Interval (feet NAVD88)[1]	Analytical Results (micrograms per liter)[2]																		
				Non-Carcinogenic PAHs											Carcinogenic PAHs							
				Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Naphthalenes[3]	Acenaphthene	Acenaphthylene	Anthracene	Benzo(g,h,i)Perylene	Fluoranthene	Fluorene	Phenanthrene	Pyrene	Benzo(a)pyrene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(j,k)Fluoranthene	Chrysene	Dibenzo(a,h)Anthracene	Indeno(1,2,3-cd)Pyrene	Total cPAHs TEC[4,5]
Block 37 Property																						
Groundwater Samples from Monitoring Wells																						
MW-41	7/26/2005	MW-41	22.0 to 7.0	< 0.5	---	---	< 0.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2/23/2006	MW-41		< 1	---	---	< 1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/9/2006	MW-41		< 1	---	---	< 1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8/30/2006	MW-41		< 5	---	---	< 5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	12/12/2006	MW-41		< 5	---	---	< 5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	3/7/2007	MW-41		< 5	---	---	< 5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	6/14/2007	MW-41		< 5	---	---	< 5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	9/13/2007	MW-41		< 5	---	---	< 5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	12/18/2007	MW-41		< 1	---	---	< 1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	3/17/2008	MW-41		< 1	---	---	< 1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	6/3/2008	MW-41		< 5	---	---	< 5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8/4/2008	MW-41		< 5	---	---	< 5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	11/4/2008	MW-41		< 5.00	---	---	< 5.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2/24/2009	MW-41		< 5.00	---	---	< 5.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/17/2009	MW-41		< 5.00	---	---	< 5.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8/16/2009	MW-41		< 5.0	---	---	< 5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	11/15/2009	MW-41		< 5.0	---	---	< 5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2/21/2010	MW-41		< 1.0	---	---	< 1.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/23/2010	MW-41		< 1.0	---	---	< 1.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	11/15/2010	MW-41		< 1.0	---	---	< 1.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2/28/2011	MW-41		< 1.0	---	---	< 1.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8/29/2011	MW-41		< 1.0	---	---	< 1.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	12/5/2011	MW-41		< 10.0	---	---	< 10.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2/15/2012	MW-41		2	---	---	< 0.102	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/16/2012	MW-41		< 1.0	---	---	< 1.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8/14/2012	MW-41		< 1.0	---	---	< 1.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MTCA Method A Cleanup Level for Groundwater[6]							**160**	**960[7]**		**4,800[7]**		**640[7]**	**640[7]**		**480[7]**							**0.1**

Table 7
Groundwater Analytical Results for PAHs
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Sample Location	Sample Date	Sample Identification	Screened Interval (feet NAVD88)[1]	Analytical Results (micrograms per liter)[2]																		
				Non-Carcinogenic PAHs											Carcinogenic PAHs							
				Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Naphthalenes[3]	Acenaphthene	Acenaphthylene	Anthracene	Benzo(g,h,i)Perylene	Fluoranthene	Fluorene	Phenanthrene	Pyrene	Benzo(a)pyrene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(j,k)Fluoranthene	Chrysene	Dibenzo(a,h)Anthracene	Indeno(1,2,3-cd)Pyrene	Total cPAHs TEC[4,5]
MW-71	2/23/2006	MW-71	25.42 to 10.42	341	---	---	**341**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/10/2006	MW-71		410	---	---	**410**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8/29/2006	MW-71		364	---	---	**364**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	12/12/2006	MW-71		151	---	---	151	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	3/7/2007	MW-71		691	---	---	**691**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	6/14/2007	MW-71		326	---	---	**326**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	9/14/2007	MW-71		200	---	---	**200**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	3/17/2008	MW-71		< 1	---	---	< 1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	6/2/2008	MW-71		156	---	---	156	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8/4/2008	MW-71		89.4	---	---	89.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	11/3/2008	MW-71		68.7	---	---	68.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2/23/2009	MW-71		193	---	---	**193**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/17/2009	MW-71		151	---	---	151	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8/16/2009	MW-71		11	---	---	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	11/15/2009	MW-71		6.2	---	---	6.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2/21/2010	MW-71		126	---	---	126	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/23/2010	MW-71		56.4	---	---	56.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8/15/2010	MW-71		128	---	---	128	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	11/14/2010	MW-71		3.3	---	---	3.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-72	2/23/2006	MW-72	25.32 to 10.32	37.3	---	---	37.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/10/2006	MW-72		48.9	---	---	48.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8/29/2006	MW-72		48.4	---	---	48.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	12/12/2006	MW-72		12.5	---	---	12.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	3/7/2007	MW-72		6.68	---	---	6.68	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	6/14/2007	MW-72		10	---	---	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	9/14/2007	MW-72		< 5	---	---	< 5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	3/17/2008	MW-72		< 1	---	---	< 1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	6/2/2008	MW-72		< 5	---	---	< 5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8/4/2008	MW-72		6.4	---	---	6.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	11/3/2008	MW-72		< 5.00	---	---	< 5.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2/23/2009	MW-72		< 5.00	---	---	< 5.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/17/2009	MW-72		8.92	---	---	8.92	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8/16/2009	MW-72		< 5.0	---	---	< 5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	11/15/2009	MW-72		< 5.0	---	---	< 5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2/21/2010	MW-72		2.3	---	---	2.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/23/2010	MW-72		< 1.0	---	---	< 1.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8/15/2010	MW-72		< 1.0	---	---	< 1.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	11/14/2010	MW-72		< 1.0	---	---	< 1.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MTCA Method A Cleanup Level for Groundwater [6]							**160**	**960[7]**	**NE**	**4,800[7]**	**NE**	**640[7]**	**640[7]**	**NE**	**480[7]**								**0.1**

Table 7
Groundwater Analytical Results for PAHs
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Sample Location	Sample Date	Sample Identification	Screened Interval (feet NAVD88)[1]	Analytical Results (micrograms per liter)[2]																		
				Non-Carcinogenic PAHs											Carcinogenic PAHs							
				Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Naphthalenes[3]	Acenaphthene	Acenaphthylene	Anthracene	Benzo(g,h,i)Perylene	Fluoranthene	Fluorene	Phenanthrene	Pyrene	Benzo(a)pyrene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(j,k)Fluoranthene	Chrysene	Dibenzo(a,h)Anthracene	Indeno(1,2,3-cd)Pyrene	Total cPAHs TEC[4,5]
MW-73	2/23/2006	MW-73	25.11 to 10.11	< 1	---	---	< 1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	4/10/2006	MW-73		1.06	---	---	1.06	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8/29/2006	MW-73		< 5	---	---	< 5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	12/12/2006	MW-73		< 5	---	---	< 5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	3/7/2007	MW-73		< 5	---	---	< 5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	6/14/2007	MW-73		< 5	---	---	< 5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	9/14/2007	MW-73		< 5	---	---	< 5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	3/17/2008	MW-73		< 1	---	---	< 1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	6/2/2008	MW-73		< 5	---	---	< 5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8/4/2008	MW-73		< 5	---	---	< 5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	11/3/2008	MW-73		< 5.00	---	---	< 5.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2/23/2009	MW-73		< 5.00	---	---	< 5.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/17/2009	MW-73		< 5.00	---	---	< 5.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8/16/2009	MW-73		< 5.0	---	---	< 5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	11/15/2009	MW-73		< 5.0	---	---	< 5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2/21/2010	MW-73		2.4	---	---	2.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/23/2010	MW-73		< 1.0	---	---	< 1.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8/15/2010	MW-73		3.3	---	---	3.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	11/14/2010	MW-73		< 1.0	---	---	< 1.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MTCA Method A Cleanup Level for Groundwater[6]							**160**	**960[7]**	**NE**	**4,800[7]**	**NE**	**640[7]**	**640[7]**	**NE**	**480[7]**								**0.1**

Table 7
Groundwater Analytical Results for PAHs
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Sample Location	Sample Date	Sample Identification	Screened Interval (feet NAVD88)[1]	Analytical Results (micrograms per liter)[2]																		
				Non-Carcinogenic PAHs											Carcinogenic PAHs							
				Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Naphthalenes[3]	Acenaphthene	Acenaphthylene	Anthracene	Benzo(g,h,i)Perylene	Fluoranthene	Fluorene	Phenanthrene	Pyrene	Benzo(a)pyrene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(j,k)Fluoranthene	Chrysene	Dibenzo(a,h)Anthracene	Indeno(1,2,3-cd)Pyrene	Total cPAHs TEC[4,5]
MW-95	2/23/2006	MW-95	Unknown	3.31	---	---	3.31	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/9/2006	MW-95		5.56	---	---	5.56	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	12/12/2006	MW-95		10.6	---	---	10.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	3/7/2007	MW-95		< 5	---	---	< 5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	6/14/2007	MW-95		< 5	---	---	< 5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	9/13/2007	MW-95		< 5	---	---	< 5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	12/18/2007	MW-95		< 1	---	---	< 1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	3/17/2008	MW-95		< 1	---	---	< 1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	6/3/2008	MW-95		< 5	---	---	< 5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8/4/2008	MW-95		< 5	---	---	< 5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	11/4/2008	MW-95		< 5.00	---	---	< 5.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2/24/2009	MW-95		< 5.00	---	---	< 5.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/17/2009	MW-95		< 5.00	---	---	< 5.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8/16/2009	MW-95		< 5.0	---	---	< 5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	11/15/2009	MW-95		< 5.0	---	---	< 5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2/21/2010	MW-95		< 1.0	---	---	< 1.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/23/2010	MW-95		< 1.0	---	---	< 1.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8/16/2010	MW-95		< 1.0	---	---	< 1.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	11/15/2010	MW-95		< 1.0	---	---	< 1.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MTCA Method A Cleanup Level for Groundwater [6]							**160**	**960[7]**	**NE**	**4,800[7]**	**NE**	**640[7]**	**640[7]**	**NE**	**480[7]**								**0.1**

NOTES:

Results in **bold** denote concentrations exceeding applicable cleanup levels.
< denotes analyte not detected at or exceeding the reporting limit listed.
— denotes sample not analyzed.
cPAHs = carcinogenic polycyclic aromatic hydrocarbons
J = result is an estimate
NE = not established
PAHs = polycyclic aromatic hydrocarbons
TEC = toxic equivalent concentration

[1]In feet referenced to North American Vertical Datum of 1988 (NAVD88).
[2]Analyzed by U.S. Environmental Protection Agency (EPA) Method 8270D/SIM. FB-03, FMW-130, and Potable Well samples analyzed by EPA Method 8260C.
[3]Sum of naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene.
[4]Total cPAHs derived using the total toxicity equivalency method in Section 708(8) of Chapter 173-340 of the Washington Administrative Code.
[5]For concentrations reported at less than the laboratory reporting limit, half the reporting limit was used to calculate total. If all constituent concentrations are non-detect, calculated total is indicated non-detect.
[6]Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Cleanup Levels for Groundwater, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013, unless otherwise noted.

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

Table 8
Groundwater Analytical Results for Select CVOCs
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Sample Location	Sample Date	Sample Identification	Screened Interval (feet NAVD88)[1]	Analytical Results (micrograms per liter)[2]									
				PCE	TCE	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,1,1-Trichloroethane	Acetone	Bromodichloromethane	Chloroform	Methyl Tertiary Butyl Ether (MTBE)
Block 38 West Property													
Reconnaissance Groundwater Samples from Borings													
FB-03	8/23/2018	FB-03-082318	8.8 to 3.8	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	7.4	< 0.20	< 0.20	---
FB-05	8/22/2018	FB-05-082218	8.5 to 3.5	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---	< 0.20	< 0.20	---
FMW-130	7/21/2014	F-MW-130-GW1-072114	7.2 to 2.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---	< 0.20	< 0.20	---
Groundwater Samples from Monitoring Wells													
FMW-130	7/24/2014	F-MW-130-072414	-22.8 to -32.8	< 0.20	< 0.20	0.51	< 0.20	< 0.20	0.26	---	< 0.20	0.91	---
	7/3/2017	FMW-130-070317		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 5.0	< 0.20	< 0.20	---
	8/30/2018	FMW-130-083018		< 0.20	< 0.20	0.27	< 0.20	< 0.20	< 0.20	---	< 0.20	< 0.20	---
	12/28/2018	FMW130-122818		< 0.20	< 0.20	0.22	< 0.20	< 0.20	< 0.20	---	---	< 0.20	---
FMW-132	8/30/2018	FMW-132-083018	20.7 to 15.7	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---	< 0.20	< 0.20	---
	12/28/2018	FMW132-122818		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---	---	< 0.20	---
FMW-133	8/30/2018	FMW-133-083018	18.8 to 13.8	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---	< 0.20	< 0.20	---
	12/28/2018	FMW133-122818		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---	---	< 0.20	---
FMW-134	8/30/2018	FMW-134-083018	13.4 to 8.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	---	< 1.0	< 1.0	---
	12/28/2018	FMW134-122818		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
	12/28/2018	FMW500-122818		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---	---	< 0.20	---
FMW-135	8/30/2018	FMW-135-083018	18.6 to 13.6	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---	< 0.20	0.41	---
	12/28/2018	FMW135-122818		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---	---	< 0.20	---
FMW-136	8/30/2018	FMW-136-083018	-4.9 to -14.9	< 0.20	< 0.20	0.36	< 0.20	< 0.20	< 0.20	---	< 0.20	**2.7**	---
	12/28/2018	FMW136-122818		< 0.20	< 0.20	0.35	< 0.20	< 0.20	< 0.20	---	---	< 0.20	---
FMW-137	11/20/2018	FMW-137-112018	-41.9 to -54.9	< 0.20	< 0.20	1.2	< 0.20	< 0.20	---	---	---	---	---
	12/28/2018	FMW137-122818		< 0.20	< 0.20	1.1	< 0.20	< 0.20	---	---	---	---	---
	5/6/2019	FMW-137-050619		< 0.20	< 0.20	1.3	< 0.20	< 0.20	---	---	---	---	---
	7/8/2019	FMW-137-070819		< 0.20	< 0.20	1.3	< 0.20	< 0.20	---	---	---	---	---
FMW-138	11/20/2018	FMW-138-112018	-45.96 to -55.96	< 0.20	< 0.20	0.29	< 0.20	< 0.20	---	---	---	---	---
	12/28/2018	FMW138-122818		< 0.20	< 0.20	0.34	< 0.20	< 0.20	---	---	---	---	---
	5/6/2019	FMW-138-050619		< 0.20	< 0.20	0.38	< 0.20	< 0.20	---	---	---	---	---
	7/8/2019	FMW-138-070819		< 0.20	< 0.20	0.34	< 0.20	< 0.20	---	---	---	---	---
Potable Water Sample													
Potable Well	8/21/2018	POTABLE-082118	Unknown	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	10	**1.6**	**16**	---
MTCA Cleanup Levels for Groundwater[3]				**5**	**5**	**16[4]**	**160[4]**	**0.2**	**200**	**7,200**	**0.706**	**1.41[4]**	**20**

Table 8
Groundwater Analytical Results for Select CVOCs
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Sample Location	Sample Date	Sample Identification	Screened Interval (feet NAVD88)[1]	Analytical Results (micrograms per liter)[2]									
				PCE	TCE	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,1,1-Trichloroethane	Acetone	Bromodichloromethane	Chloroform	Methyl Tertiary Butyl Ether (MTBE)
Block 37 Property													
MW-41	6/2/2005	MW-41	22.0 to 7.0	---	---	---	---	---	---	---	---	---	< 1
	7/26/2005	MW-41		---	---	---	---	---	---	---	---	---	< 1
	11/2/2005	MW-41		---	---	---	---	---	---	---	---	---	< 1
	2/23/2006	MW-41		---	---	---	---	---	---	---	---	---	< 1
	5/9/2006	MW-41		---	---	---	---	---	---	---	---	---	< 1
	8/30/2006	MW-41		---	---	---	---	---	---	---	---	---	< 1
	12/12/2006	MW-41		---	---	---	---	---	---	---	---	---	< 1
	3/7/2007	MW-41		---	---	---	---	---	---	---	---	---	< 1
	6/14/2007	MW-41		---	---	---	---	---	---	---	---	---	< 1
	9/13/2007	MW-41		---	---	---	---	---	---	---	---	---	< 1
	12/18/2007	MW-41		---	---	---	---	---	---	---	---	---	< 1
	3/17/2008	MW-41		---	---	---	---	---	---	---	---	---	< 3
	6/3/2008	MW-41		---	---	---	---	---	---	---	---	---	< 1
	8/4/2008	MW-41		---	---	---	< 0.102	---	---	---	---	---	< 1
	11/4/2008	MW-41		---	---	---	---	---	---	---	---	---	< 1.00
	5/17/2009	MW-41		---	---	---	---	---	---	---	---	---	< 1.00
	8/16/2009	MW-41		---	---	---	---	---	---	---	---	---	< 1.0
	11/15/2009	MW-41		---	---	---	---	---	---	---	---	---	< 1.0
MW-71	11/3/2005	MW-71	25.42 to 10.42	---	---	---	---	---	---	---	---	---	< 20
	2/23/2006	MW-71		---	---	---	---	---	---	---	---	---	< 20
	5/10/2006	MW-71		---	---	---	---	---	---	---	---	---	< 40
	8/29/2006	MW-71		---	---	---	---	---	---	---	---	---	< 1
	12/12/2006	MW-71		---	---	---	---	---	---	---	---	---	< 1
	3/7/2007	MW-71		---	---	---	---	---	---	---	---	---	< 40
	6/14/2007	MW-71		---	---	---	---	---	---	---	---	---	< 1
	9/14/2007	MW-71		---	---	---	---	---	---	---	---	---	< 1
	12/17/2007	MW-71		---	---	---	---	---	---	---	---	---	< 1
	3/17/2008	MW-71		---	---	---	---	---	---	---	---	---	**259**
	6/2/2008	MW-71		---	---	---	---	---	---	---	---	---	< 1
	8/4/2008	MW-71		---	---	---	---	---	---	---	---	---	< 1
	11/3/2008	MW-71		---	---	---	---	---	---	---	---	---	< 1.00
	5/17/2009	MW-71		---	---	---	---	---	---	---	---	---	< 1.00
	8/16/2009	MW-71		---	---	---	---	---	---	---	---	---	< 1.0
	11/15/2009	MW-71		---	---	---	---	---	---	---	---	---	< 1.0
MW-72	11/3/2005	MW-72	25.32 to 10.32	---	---	---	---	---	---	---	---	---	< 2
	2/23/2006	MW-72		---	---	---	---	---	---	---	---	---	< 2
	5/10/2006	MW-72		---	---	---	---	---	---	---	---	---	< 2
	8/29/2006	MW-72		---	---	---	---	---	---	---	---	---	< 1
	12/12/2006	MW-72		---	---	---	---	---	---	---	---	---	< 1
	3/7/2007	MW-72		---	---	---	---	---	---	---	---	---	< 1
	6/14/2007	MW-72		---	---	---	---	---	---	---	---	---	< 1
	9/14/2007	MW-72		---	---	---	---	---	---	---	---	---	< 1
	12/17/2007	MW-72		---	---	---	---	---	---	---	---	---	< 1
	3/17/2008	MW-72		---	---	---	---	---	---	---	---	---	< 3
	6/2/2008	MW-72		---	---	---	---	---	---	---	---	---	< 1
	8/4/2008	MW-72		---	---	---	---	---	---	---	---	---	< 1
	11/3/2008	MW-72		---	---	---	---	---	---	---	---	---	< 1.00
	5/17/2009	MW-72		---	---	---	---	---	---	---	---	---	< 1.00
	8/16/2009	MW-72		---	---	---	---	---	---	---	---	---	< 1.0
	11/15/2009	MW-72		---	---	---	---	---	---	---	---	---	< 1.0
MTCA Cleanup Levels for Groundwater[3]				**5**	**5**	**16[4]**	**160[4]**	**0.2**	**200**	**7,200**	**0.706**	**1.41[4]**	**20**

Table 8
Groundwater Analytical Results for Select CVOCs
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Sample Location	Sample Date	Sample Identification	Screened Interval (feet NAVD88)[1]	Analytical Results (micrograms per liter)[2]									
				PCE	TCE	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,1,1-Trichloroethane	Acetone	Bromodichloromethane	Chloroform	Methyl Tertiary Butyl Ether (MTBE)
MW-73	11/3/2005	MW-73	25.11 to 10.11	---	---	---	---	---	---	---	---	---	< 2
	2/23/2006	MW-73		---	---	---	---	---	---	---	---	---	< 1
	4/10/2006	MW-73		---	---	---	---	---	---	---	---	---	< 1
	8/29/2006	MW-73		---	---	---	---	---	---	---	---	---	< 1
	12/12/2006	MW-73		---	---	---	---	---	---	---	---	---	< 1
	3/7/2007	MW-73		---	---	---	---	---	---	---	---	---	< 1
	6/14/2007	MW-73		---	---	---	---	---	---	---	---	---	< 1
	9/14/2007	MW-73		---	---	---	---	---	---	---	---	---	< 1
	12/17/2007	MW-73		---	---	---	---	---	---	---	---	---	< 1
	3/17/2008	MW-73		---	---	---	---	---	---	---	---	---	< 3
	6/2/2008	MW-73		---	---	---	---	---	---	---	---	---	< 1
	8/4/2008	MW-73		---	---	---	---	---	---	---	---	---	< 1
	11/3/2008	MW-73		---	---	---	---	---	---	---	---	---	< 1.00
	5/17/2009	MW-73		---	---	---	---	---	---	---	---	---	< 1.00
	8/16/2009	MW-73		---	---	---	---	---	---	---	---	---	< 1.0
	11/15/2009	MW-73		---	---	---	---	---	---	---	---	---	< 1.0
MW-95	11/2/2005	MW-95	Unknown	---	---	---	---	---	---	---	---	---	< 1
	2/23/2006	MW-95		---	---	---	---	---	---	---	---	---	< 1
	5/9/2006	MW-95		---	---	---	---	---	---	---	---	---	< 1
	12/12/2006	MW-95		---	---	---	---	---	---	---	---	---	< 1
	3/7/2007	MW-95		---	---	---	---	---	---	---	---	---	< 1
	6/14/2007	MW-95		---	---	---	---	---	---	---	---	---	< 1
	9/13/2007	MW-95		---	---	---	---	---	---	---	---	---	< 1
	12/18/2007	MW-95		---	---	---	---	---	---	---	---	---	< 1
	3/17/2008	MW-95		---	---	---	---	---	---	---	---	---	< 3
	6/3/2008	MW-95		---	---	---	---	---	---	---	---	---	< 1
	8/4/2008	MW-95		---	---	---	---	---	---	---	---	---	< 1
	11/4/2008	MW-95		---	---	---	---	---	---	---	---	---	< 1.00
	5/17/2009	MW-95		---	---	---	---	---	---	---	---	---	< 1.00
	8/16/2009	MW-95		---	---	---	---	---	---	---	---	---	< 1.0
	11/15/2009	MW-95		---	---	---	---	---	---	---	---	---	< 1.0
MTCA Cleanup Levels for Groundwater[3]				**5**	**5**	**16[4]**	**160[4]**	**0.2**	**200**	**7,200**	**0.706**	**1.41[4]**	**20**

NOTES:

Results in **bold** denote concentrations exceeding applicable cleanup levels.
< denotes analyte not detected at or exceeding the reporting limit listed.
— denotes sample not analyzed.

[1]In feet referenced to North American Vertical Datum of 1988 (NAVD88).
[2]Analyzed by U.S. Environmental Protection Agency Method 8260C. Only detected and select VOCs shown; see laboratory report for full list of analytes.

[3]Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Cleanup Levels for Groundwater, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as amended 2013, unless otherwise noted.
[4]MTCA Cleanup Regulation Cleanup Levels and Risk Calculations, Standard Method B Values for Groundwater, https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx.

ESP = elevation survey pending
VOCs = volatile organic compounds

Table 9
Monitoring Wells to be Decommissioned
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Location	Screened Interval (feet bgs)[1]	Screened Interval (feet NAVD88)[2]	Top of Casing Elevation (feet NAVD88)[2]	Monitoring Well to be Decommissioned (Y/N)
FMW-130	45.0 to 55.0	-22.8 to -32.8	21.86	Yes
FMW-132	5.0 to 10.0	20.7 to 15.7	25.48	Yes
FMW-133	6.5 to 11.5	18.8 to 13.8	24.87	Yes
FMW-134	12.0 to 17.0	13.4 to 8.4	24.98	Yes
FMW-135	7.0 to 12.0	18.6 to 13.6	25.29	Yes
FMW-136	30.0 to 40.0	-4.9 to -14.9	24.79	Yes
FMW-137	72.0 to 85.0	-41.9 to -54.9	30.09	No
FMW-138	90.0 to 100.0	-49.96 to 59.96	40.44	No

Notes:
[1]Depth in feet below ground surface.
[2]In feet referenced to North American Vertical Datum of 1988 (NAVD88).
[3]In feet below top of well casing.

bgs = below ground surface