WSDOT

SR 520 BRIDGE REPLACEMENT AND HOV PROGRAM

Remedial Investigation Report for Montlake Gas Station

SR 520 Bridge Replacement and HOV Program Seattle, Washington

Prepared for

Washington State Department of Transportation
SR 520 Bridge Replacement and HOV Program
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Washington State
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March 10, 2020

Mr. Ron Paananen
Washington State Department of Transportation
SR 520 Bridge Replacement and HOV Program
999 3rd Ave, Suite 2200
Seattle, WA 98104

Dear Mr. Paananen:

RE: REMEDIAL INVESTIGATION REPORT FOR MONTLAKE TEXACO, SR 520 BRIDGE REPLACEMENT AND HOV PROGRAM, SEATTLE, WASHINGTON

Shannon & Wilson prepared this report and participated in this project as a subconsultant to the Washington State Department of Transportation. Our scope of services was specified in Master Subconsultant Agreement Y-11848, Task Order DA.00. This document presents the Remedial Investigation Report and was prepared by the undersigned.

Mr. Ryan Peterson and Mr. Joe Sawdey prepared this report. Mr. Peterson is a professional engineer with over two years of experience with environmental investigations. Mr. Sawdey is a licensed geologist and has over nine years of experience conducting environmental assessments and remedial investigations. Preparation of this report was performed under the direction of Ms. Meg Strong, a licensed geologist and hydrogeologist with over 30 years of experience with remedial investigations. Ms. Strong reviewed this report for technical content.

We appreciate the opportunity to be of service to you on this project. If you have questions concerning this report, or we may be of further service, please contact us.

Sincerely,

SHANNON & WILSON

Joseph Sawdey, LG
Environmental Geologist

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State of Washington
Hydrogeologist
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Licensed Geologist
Margaret J. Strong

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Executive Summary

This Remedial Investigation (RI) Report was prepared for the Montlake Gas Station Site located at 2625 East Montlake Place East, Seattle, Washington (Site). The Site is currently enrolled in the Washington State Department of Ecology's (Ecology's) Voluntary Cleanup Program (VCP). The Site VCP number is NW3242.

The purpose of this RI was to document the nature and extent of contamination using historical and recently collected information. Recent investigation activities focused on addressing data gaps, because Site remediation and redevelopment are anticipated to occur during the spring of 2021. The Site will be redeveloped as part of Washington State Department of Transportation's (WSDOT's) State Route (SR) 520 Bridge Replacement and High Occupancy Vehicle (HOV) Program.

The Site is a triangular-shaped parcel at the intersection of the SR 520 eastbound offramp and East Montlake Place East. It is approximately 1,200 feet south of the Montlake Cut section of Lake Washington and 800 feet east of Portage Bay. The Site has operated as a gasoline service station and grocery store since at least 1926 (WSDOT Environmental Services Office [ESO], 2016). An auto repair facility was constructed on the Site in the 1980s. The gasoline service station, auto repair facility, and grocery store (called Market) are currently inactive and will be demolished in 2020.

Investigations to evaluate for the presence of subsurface contamination have included the collection and analysis of soil, groundwater, and soil gas samples. Detections have been screened against Model Toxics Control Act (MTCA) Method A (MTCA-A) cleanup levels (CULs).

Findings of the investigations indicate the following:

- Gasoline-range petroleum hydrocarbons and associated benzene, toluene, ethylbenzene, and xylene (BTEX) compounds are present in Site soil and groundwater at concentrations exceeding CULs. The concentration of constituents in soil gas, collected on the Site and at a location adjacent to the nearest occupied property, were below indoor air exposure thresholds at the time of sampling.
- The extent of contamination in soil, groundwater, and soil gas has been evaluated and indicate the source of contamination to be Site activities in proximity to underground storage tanks (USTs) and fueling islands. This is based on (1) contamination being geographically centered on these areas, (2) shallowest detections of contaminants were in these areas, and (3) concentrations of contaminants appear to decrease with distance from these areas.
- The groundwater flow direction in the vicinity of the Site is to the north and northeast based on groundwater-level measurements from monitoring wells. Contamination appears to have migrated downward through the subsurface until it intersected with the groundwater table and flowed offsite via groundwater transport. Groundwater is perched on the underlying glacially overridden till. Soil with contamination exists under the adjacent road; the soil contamination appears to be present due to the offsite flow of contaminated groundwater since overlying soil is not contaminated.
- The nearby combined sewer line backfill appears to be acting as a preferential pathway for migration of contaminated groundwater as detected in monitoring well MW-3-19. Contamination appears to extend along the combined sewer line no farther than monitoring well MW-5-20, located north of the Site and on the downslope side of the eastbound SR 520 onramp.

- Review of laboratory petroleum hydrocarbon chromatographs indicates that multiple releases appear to have occurred over time. This is based on the degree of weathering and the nature of the volatile partitioning as shown by sample analysis and chromatographs. In general, more weathering with less volatiles is indicative of older gasoline spills, while less weathering with more volatiles is indicative of fresher gasoline.

The contaminants of concern (COCs) are as follows:

Compound	Soil	Groundwater
Gasoline-Range Hydrocarbons	X	X
BTEX	X	X

The vertical and lateral extent of the contamination at the Site has been characterized to a level of confidence such that remediation is the next recommended environmental action for the Site. No nearby sites were identified to be contributing to the gasoline and BTEX contamination. No drinking water wells were identified in the vicinity of the Site.

A model remedy approach to cleanup, consisting of a remedial excavation, is proposed because (1) the extent of the contamination in each media has been defined, (2) the contamination is related to spills from the gasoline station operations, (3) surface water or associated sediments are not impacted, and (4) the Site contamination does not impact ecological species as established through the terrestrial ecological evaluation (TEE) criteria.

Remediation excavation is anticipated to commence in the spring of 2021. In advance of excavation, an interim action to address contaminated groundwater migration offsite is proposed. This interim action includes the use of oxygen-releasing compounds introduced through two monitoring wells to enhance natural biodegradation of the gasoline and BTEX in groundwater. The intent of the excavation in 2021 is to remove the source zone contamination (i.e., the most elevated concentrations of soil and groundwater contamination). Oxygen-releasing compounds will be placed in the base of the excavation to address residual offsite groundwater contamination. After the source zone is removed, it is expected that (1) soil CULs will be met across the Site and (2) groundwater CULs will be met within a reasonable restoration timeframe.

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Acronyms and Abbreviations

µg/L	micrograms per liter
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and total xylenes
City	City of Seattle
COCs	contaminants of concern
cPAHs	carcinogenic polycyclic aromatic hydrocarbons
CUL	cleanup level
Ecology	Washington State Department of Ecology
Eh/ORP	oxidation-reduction potential
EM	electromagnetic
ESA	environmental site assessment
ESO	Environmental Services Office
ft/sec	feet per second
GPR	ground-penetrating radar
HOV	high-occupancy vehicle
ID	identification
mg/kg	milligrams per kilogram
MTCA	(Washington State) Model Toxics Control Act
MTCA-A	(Washington State) Model Toxics Control Act Method A
PCB	polychlorinated biphenyls
PTAP	Petroleum Technical Assistance Program
RI	Remedial Investigation
Site	Montlake Gas Station Site
SR	State Route
TEE	Terrestrial Ecological Evaluation
UST	underground storage tank
VCP	Voluntary Cleanup Program
VOC	volatile organic compound
WAC	Washington Administrative Code
WSDOT	Washington State Department of Transportation

Introduction

This RI Report of the Montlake Gas Station (Site) was prepared for the WSDOT SR 520 Bridge Replacement and HOV Program. This report was prepared in accordance with the requirements of the Remedial Investigation Checklist (Ecology, 2016a) to meet MTCA cleanup regulations (Washington Administrative Code (WAC) Chapter 173-340).

Purpose

The purpose of this RI Report was to document the nature and extent of contamination in soil, groundwater, and soil gas. This RI also included an evaluation of the potential for the nearby combined sewer line to act as a preferential pathway away from the Site. The data collected has been summarized herein, pathways evaluated, cleanup levels determined, and the extent of remedial activities assessed. Remedial excavation is planned to be undertaken during spring of 2021.

General Site Information

The Site is a roughly triangular parcel located at 2625 East Montlake Place East, Seattle, Washington (Exhibits 1 and 2) at the intersection of the SR 520 eastbound offramp and East Montlake Place East. It is currently an inactive gasoline service station, inactive auto repair facility, and inactive Market. The gasoline service station ceased fueling services in January 2020. Previous environmental explorations at the Site have identified soil and groundwater with concentrations of regulated contaminants exceeding environmental action cleanup levels set forth in the MTCA regulation (Innovex, 2016, 2018a, 2018b, and 2019). The source of the contamination is likely the use of the facility as a gasoline service station from approximately 1926 to 2020 and auto repairs from approximately 1980 to 2020. These activities likely resulted in surface spills, overfilling of or leakage from USTs used to store unleaded gasoline (i.e., gasoline-range petroleum hydrocarbons) and waste oil, and spills or leakage from fueling appurtenances and other operations at the Site (such as conveyance lines and connections to fueling islands and the auto repair of vehicles). The locations of the USTs and fueling islands are provided in Exhibit 2. The gasoline USTs, fueling lines, and pumps were vacuumed out, rinsed, and temporarily closed in place in January 2020.

The Site is registered with Ecology with the following information:

Site Name:	Montlake Gas Station
Site Address:	2625 East Montlake Place East Seattle, Washington
Property Owner:	Washington State Department of Transportation
Ecology Facility Site Identification (ID):	47724816
Cleanup Site ID:	14857
UST program ID:	100410
Leaking UST List ID:	8070
Voluntary Cleanup Program ID:	NW3242
Ecology Site Manager:	Mr. Michael Warfel

Site Description and Physical Setting

This section describes the physical characteristics of the Site and vicinity. Descriptions are derived from historical documents and explorations conducted by Shannon & Wilson and others. These documents are provided in Appendices A through K.

Location and Legal Description

The Site is in the northwest quarter of Section 21, Township 25 North, Range 4 East of the Willamette Meridian. The Site has an address of 2625 East Montlake Place East in Seattle. The Site includes portions of the adjacent rights-of-way, including East Montlake Place East and the SR 520 eastbound offramp for Montlake Boulevard. The property is owned by WSDOT and the adjacent rights-of-way are owned by WSDOT and the City of Seattle (City).

The Site is approximately one-half acre in size and is predominantly triangular in shape (Exhibit 2).

Current and Future Use

WSDOT acquired the property containing the gasoline service station, auto repair facility, and adjacent market from Kemper Development Company in June 2019. WSDOT intends to redevelop the property as part of the SR 520 Bridge Replacement and HOV Program. The gasoline service station, auto repair facility, and Market were closed in January 2020 and will be demolished during 2020. The north portion of the Site will be redeveloped as an on/offramp, and the remainder will be used as a laydown area for the SR 520 project. The property will be sold for development after the SR 520 project is completed. The Site is zoned Neighborhood Commercial 1 by the City.

Geologic Setting and Soil Descriptions

The Site is located within the Puget Sound Basin, which lies between the Cascade Range to the east and the Olympic Mountains to the west. The landscape configuration of the Puget Sound Basin was a consequence of multiple Pleistocene glaciations resulting in a series of north-trending, elongated ridges separated by deep troughs, the latter now occupied by marine waters or freshwater lakes or streams.

During explorations, the soil observed at the Site generally included the following sequence of soil stratum layers (or horizons), listed as encountered from shallowest to deepest:

- ***Sandy silt to silty sand*** with local silty clay layers, nonplastic to medium plasticity, gray to brown-gray and iron-oxide stained locally, dry to wet, variable fill and native materials with pavement and base course commonly in the uppermost section. Typically encountered from approximately 2 to 20 feet below ground surface (bgs) (approximately 18 feet thickness) and underlain by:
- ***Sand to silty sand (where encountered)***, typically clean with trace fines, but locally slightly silty to silty, trace of gravel, gray to dark-gray, typically wet and saturated with water. Typically encountered from 20 to 25 feet bgs (approximately 5 feet thickness) and underlain by:
- ***Glacial till***, very dense, silty sand to sandy silt with scattered gravel, dry to moist, diamict. Typically encountered at depths greater than 25 feet bgs except for the southwest portion of

the Site, where it is much shallower at approximately 15 feet bgs. The glacial till extends to at least 60 feet bgs as logged in boring SB-1-19 (renamed as RW-1-19).

Conceptual profiles of the observed subsurface conditions along transects A-A' and B-B' (Exhibit 2) are included as Exhibits 3 and 4, respectively. The generalized profiles show the approximate location and distribution of the soil stratum described above, groundwater table, positive field screening results of petroleum hydrocarbon presence (odor, sheen, or staining), and soil sampling locations that exceed CULs.

A contoured map was created to depict the glacial till surface elevation throughout the Site (Exhibit 5). In general, the till surface has a trough that trends southeast-northwest throughout the Site. This depression or trough is typically where the saturated, sand and silty sand are encountered and may correlate with an old creek that scoured the till, leaving behind water-transported sandy soil.

Hydrogeology

The vicinity of the Site is bordered by three surface water hydrologic units: Lake Washington to the east, the Montlake Cut of the Lake Washington Ship Canal to the north, and Portage Bay to the west. The Montlake Cut connects Lake Washington to Portage Bay and flows east to west. It was constructed in the early 1900s.

Based on groundwater elevation monitoring conducted during October 17, 2019, groundwater was approximately 9.1 to 17.4 feet bgs, or 48.0 to 41.6 feet above mean sea level. Quarterly groundwater elevation monitoring efforts, conducted by WSDOT, in nearby piezometer H-691p-16 (Exhibit 2) show that groundwater levels in the area fluctuate by approximately 10 feet throughout the year (Exhibit 6). Groundwater elevation is generally the highest toward the end of the wet season, typically April, and lowest toward the end of the dry season, typically September.

Water was encountered in the sandy silt to silty sand horizon with a relatively low specific yield and within the sand to silty sand perched on the glacial till unit with a relatively high specific yield. The specific yield of the sand was roughly 20% of the volume of the sample (e.g., 1 cubic inch would yield 0.3 cubic inch of water), whereas the specific yield of the silty sand was as low as zero (e.g., no water yield from 1 cubic inch of saturated silty sand). Due to the higher specific yield and interpreted hydraulic transmissivity of the sand to silty sand, this unit is the most likely horizon to transmit and transport contaminants away from the source zone. Based on the relative density, grain size, and field observations, the glacial till is likely acting as an aquitard, and local groundwater is perched on top of this unit.

A potentiometric surface map of groundwater elevation and associated groundwater flow direction(s) is provided as Exhibit 7. Based on the October 2019 groundwater measurements, the primary flow direction across the Site is to the north with an approximate hydraulic gradient of 0.04 foot per foot (unitless). Toward the eastern portion of the Site, as monitored in RW-1-19, MW-1-19, and MW-4-19, groundwater has more of a northeasterly flow direction. This slight difference in flow direction may be due to groundwater beginning to preferentially flow through the more permeable sands encountered within this vicinity of the Site. During the dry season, when the groundwater is low and not recharging from rain events, the groundwater flow direction may begin to follow the surface gradient of the glacial till unit more closely (i.e., groundwater flow would occur as gravity-driven flow along the till slopes from high to low) in a northeasterly direction.

Site History and Surroundings

This section describes the use of the Site and adjacent properties over time.

Historical Use

The earliest available records indicate that the Site was initially undeveloped and has been operated as a grocery store and gasoline service station as early as 1926 (WSDOT ESO, 2016). The buildings present in 1926 were demolished, and a new building that operated as a gasoline service station was constructed in 1952. This building was remodeled in approximately 1980 to incorporate a multi-bay garage used for auto services and repair. The auto services building used a belowground pneumatic hoist system.

The surrounding area is predominantly residential with limited commercial development. The area to the east and south of the Site consists of single-family residences and has remained relatively unchanged since at least 1926. The area to the north and west of the Site is the SR 520 on- and offramp and highway. This portion of SR 520 was completed in early 1960 and has remained unchanged since. Based on review of a Sanborn Map and historical photos of the area (Appendix A), it appears that a multi-family residence and potential gas station were approximately located to the northwest of the Site, on the opposite side of the current SR 520 on- and offramps, during at least 1930 through 1962. The Sanborn Map and historical photos, included within Appendix A, show the general location of these features with respect to the Montlake Gas Station.

Two sewer lines are near the Site. A combined sewer line is located to the north and northeast of the Site, and a sewer line is northwest of the Site (Exhibit 2). The combined sewer line is 90 inches in diameter and was installed during the 1960s. On average, the combined sewer line is approximately 20 feet bgs in the vicinity of the Site. At this depth, the combined sewer line is fully below or partially below the groundwater table. The sewer to the northwest of the Site is approximately 17 feet bgs in the vicinity of the Site.

Both sewer lines extend north and combine just north of the SR 520 onramp before immediately splitting. Afterward, the two sewer lines have an approximate 11-foot elevation drop and then track northward as 102- and 42-inch-diameter pipes under SR 520 with minimal to no grade elevation change (Appendix A). On the northern side of SR 520, the ground surface elevation increases by approximately 20 feet, and the elevation of the sewer lines follows the topography.

Based on review of historical photographs taken during the installation of the sewer lines (adjacent to and north of the Site) and the SR 520 work, significant excavation occurred in the area to the immediate northeast and north of the Site. Using these historical photographs and recent borings, it appears that reworked soil and some sand and gravel fill were used to backfill around and above the combined sewer line back to surface grade. The reworked soil and fill may create a preferential pathway for groundwater flow in the vicinity of the Site.

No contaminated sites were identified within close vicinity of the Site or within a couple of blocks southward along the combined sewer line. No drinking water wells were identified in the vicinity of the Site.

Environmental History

This section chronologically summarizes available information relevant to (1) remedial investigations, (2) other indications or detections of contaminated media at the Site, and (3) regulatory interaction. A more detailed discussion of findings from previous environmental assessments is provided later in this report.

Four USTs are documented to have been installed at the Site in the 1940s through 1970s (Ecology, 2019; AA Enviro Assessment, Inc., 2000). The approximate location of the gasoline UST area is provided in Exhibit 2, and details are provided in Exhibit 8. Given that the Site was used as a gas station since 1926, other USTs may also have been present that may or may not have been removed.

EXHIBIT 8 – UNDERGROUND STORAGE TANK DETAILS

UST Name	Contents	Capacity	Construction
Underground Storage Tank 1	Unleaded Gasoline	10,000 gallons	Steel tank, single-wall fiberglass pipes, impressed current
Underground Storage Tank 2	Unleaded Gasoline	5,000 gallons	Steel tank, single-wall fiberglass pipes, impressed current
Underground Storage Tank 3	Unleaded Gasoline	10,000 gallons	Steel tank, single-wall fiberglass pipes, impressed current
4-300	Used Oil/Waste Oil	300 gallons	Steel tank, single-wall

A Waste Oil UST is located to the north of the auto repair facility and adjacent to the southwest boundary of the current gasoline UST area. The Waste Oil UST was permanently closed in place and reportedly filled with a slurry in 2000. An oil-water separator is also located within the western end of the auto repair facility that connects with Site drainage and then the combined sewer.

In 2002, a spill of two gallons of gasoline at the Site was reported to Ecology. The cause was reported as an accidental overflow. The exact location and cleanup activities were not provided. The spill is recorded in Ecology's Environmental Report Tracking System as incident #524730.

Available records indicated that the three gasoline USTs passed tank tightness tests during 2002, 2003, 2005, 2011, and annually from 2013 through 2019. The most recent tank tightness test was conducted in September 2019, and the three tanks passed. Lines from the USTs to the dispenser pumps and the cathodic protection system were also tested in 2019 and were reported to comply with requirements. The USTs, fueling lines, and dispenser pumps were vacuumed out, rinsed, and temporarily closed in place during January 2020.

A Phase I Environmental Site Assessment (ESA) of the Site was conducted in 2016 in preparation for WSDOT's potential acquisition of the property. The potential for a historical release of petroleum hydrocarbons at the Site was identified as a recognized environmental condition in the ESA. Additionally, a potential historical gasoline service station and residence on the northwest adjoining property is shown in records provided in the Phase I ESA. A Sanborn Fire Insurance map dated 1930 showed a structure labeled as "Gas & Oil" approximately 140 feet northwest of the Site. In that Sanborn map, the Site's east fueling canopy was labeled as "Gas & Oil," indicating that the term may be synonymous with gasoline service station (Appendix A). Aerial photos from 1936 and 1962 showed structures of similar configuration on the northwest adjoining property (Appendix A). The residence and the gasoline station appear to have been demolished in the early 1960s during the

construction of SR 520, and based on aerial and other photos, significant excavation occurred in the area where the buildings had been located (Appendix A). The location of the potential historical gasoline service station is currently a grassy slope that was disturbed and reworked during the SR 520 construction and is now inside the SR 520 on/offramp loop.

Subsequently, several Phase II ESAs were conducted from 2016 through 2019 that confirmed the release of petroleum hydrocarbons from the Site gasoline service station to the subsurface and further defined the characteristics and extent of the contamination. These ESAs are discussed in more detail in the following section.

Ecology received notification of the release of petroleum hydrocarbons discovered at the Site in January 2019. Ecology subsequently performed an initial field investigation and listed the Montlake Gas Station as a cleanup site.

During April 2019, the former owners of the Site enrolled in the Pollution Liability Insurance Agency's Petroleum Technical Assistance Program (PTAP). The Site was withdrawn from the PTAP after the property was sold to WSDOT. The Site did not progress through the PTAP beyond the intake meeting.

WSDOT enrolled the Site in Ecology's VCP and submitted a proposed Data Gaps Investigation Work Plan to Ecology in July 2019.

Previous Environmental Assessments

Environmental assessments have been previously performed at the Site beginning in 2000. This section summarizes available and relevant activities undertaken at the Site. Reports associated with the previous environmental assessments are provided in Appendices B through I.

Waste Oil Underground Storage Tank (UST) Site Assessment

An assessment of the Waste Oil UST was conducted in August 2000 (AA Enviro Assessment, 2000) (Appendix B). The Site assessment was conducted pursuant to Ecology regulations for closure of Waste Oil USTs. During excavation of the soil above the tank, visual and olfactory observations revealed readily detectable contaminants in the soil. Laboratory results indicated that the soil had 2,200 milligrams per kilogram (mg/kg) of "oil" by method Northwest Total Petroleum Hydrocarbon-Diesel Extended.

The soil above the UST was subsequently excavated and disposed offsite. Three soil samples were collected by boring through the center and both ends of the Waste Oil UST. Diesel- and oil-range hydrocarbons were not detected in these three samples. The metals, lead, cadmium, chromium, and arsenic were analyzed in the soil sample from beneath the base of the UST. No exceedances of the metal CULs were noted. The Waste Oil UST was permanently closed in place and reportedly filled with a slurry.

Available records did not indicate if the full extent of the contaminated soil from above the UST had been excavated and removed from the Site.

Site Soil and Groundwater Investigation

The WSDOT ESO performed a limited Phase I ESA (Appendix C) of the Site in 2016 and identified the historical use of the property as a gasoline service station to be a recognized environmental condition. No other recognized environmental conditions were identified. The 2016 ESA did not reveal records or other information that indicated a release of regulated substances on the Site besides the prior discovery of petroleum hydrocarbons that were excavated above the Waste Oil UST.

Subsequent to the Phase I ESA, several Phase II ESAs were performed (Appendices D, E, F, and G) that identified the presence of contamination at the Site and evaluated the extent of COCs. Borings were located on the Site and on the adjacent rights-of-way (Exhibit 2). Temporary environmental wells were installed in borings where groundwater was encountered. Reconnaissance groundwater samples were collected from the temporary wells.

The soil and reconnaissance groundwater samples were generally analyzed for the following:

- Gasoline-range hydrocarbons
- Diesel-range hydrocarbons
- Oil-range hydrocarbons
- Polychlorinated biphenyls (PCBs)
- Volatile organic compounds (VOCs)
- Semi-volatile organic compounds

- Metals

The data collected during the ESAs demonstrated that the soil and groundwater at the Site were impacted by contaminants typically associated with gasoline service stations. Soil samples had detectable concentrations of chemicals above the regulatory limits, including:

- Gasoline-range hydrocarbons
- BTEX and gasoline-related VOCs
- One boring (H-19-18) contained lube-oil-range hydrocarbons, carcinogenic polyaromatic hydrocarbons (cPAHs) and naphthalene

Methylene chloride was detected above the CUL in soil sample H-3-16 at 6 and 8.5 feet; however, the laboratory reported that they were likely laboratory contaminants due to the extraction method used for these two samples. Other samples analyzed for methylene chloride were non-detect, and methylene chloride is not commonly identified as a contaminant associated with gasoline service stations. Therefore, the two soil samples containing methylene chloride are considered to be caused by a laboratory contaminant and are not further considered as part of this RI Report.

Groundwater was encountered between 15 to 20 feet bgs, and reconnaissance groundwater samples had detectable concentrations of chemicals above the regulatory limits, including:

- Gasoline-range hydrocarbons
- VOCs: BTEX and gasoline-related VOCs (1,2-dichloroethane, naphthalene, bromochloromethane)
- Dissolved metals: arsenic in multiple locations, and antimony, selenium, and silver in one other location

The conclusions in the ESAs were that the source of the contaminants was the Montlake Gas Station property, since sampling showed decreasing concentrations of contaminants farther away from the gasoline service station in each direction. The data from the investigations undertaken at the Montlake Gas Station and from relevant borings, monitoring wells, and piezometers associated with the SR 520 project are incorporated into exhibits used in this report.

Subsurface Survey

A subsurface survey was conducted in December 2018 to locate utilities and other potentially unknown USTs in the parking area of the western portion of the Site (Appendix H). The survey utilized ground-penetrating radar (GPR) and electromagnetic (EM) survey methods. This GPR and EM survey did not identify unknown USTs or other anomalies.

Indoor Air Testing

During 2019, the WSDOT team performed indoor air testing at the northeast adjoining property (2209 East Lake Washington Boulevard) (Exhibit 2). The air testing was performed to evaluate for potential indoor air impacts due to the nearby subsurface contamination located on the Site. Since gasoline and BTEX readily partition from soil and groundwater to the gas phase, this creates a potential for vapor migration of gasoline and BTEX through the subsurface. Chemical vapors can potentially migrate from nearby soil and groundwater contamination into the indoor air of nearby or overlying buildings.

The scope of the evaluation included collecting one indoor air sample in the property's garage (because it was planned to be used as an office during SR 520 construction and was the closest inhabited structure to the Montlake Gas Station) and one ambient air sample from the garage's roof for use as a background sample. The samples were analyzed for gasoline-range hydrocarbons and BTEX.

The measured concentrations of analytes from both samples did not exceed the applicable regulatory limits. However, the indoor air sample had concentrations of benzene and toluene above the ambient air concentrations, indicating a potential source within the building (e.g., observed staining on the garage floors) or that vapor migration and intrusion from the Site was occurring at the time of sampling.

2019 Data Gaps Investigation

The objective of the 2019 Data Gaps Investigation was to resolve data gaps identified for the Site, including further subsurface characterization to assess the nature and extent of contamination at the Site in the different media.

Scope

The scope of the 2019 Data Gaps Investigation included an additional GPR survey and advancement of 16 borings on and around the Site, including:

- Eight soil borings (with no installations) to define the vertical and lateral extent of soil and groundwater contamination.
- Five borings completed as groundwater monitoring wells to determine the groundwater gradient, hydraulic properties, and properly assess the extent of groundwater impacts.
- Two borings completed as vapor monitoring points to determine if indoor air impacts were present at the Market, which is the closest structure to the Montlake Gas Station.
- One boring completed as a product recovery well to use for potential interim actions.

Soil, groundwater, and soil vapor samples were collected for chemical analysis to further delineate and define Site contamination. Additionally, an analysis of groundwater elevation (e.g., hydraulic head) was conducted to evaluate groundwater flow direction. Slug testing was performed to obtain initial estimates of the bulk hydraulic conductivity for the shallow perched aquifer underlying the Site.

The identified data gaps and methods of resolution are discussed in the following sections.

Contaminant Nature and Extent

Previous investigations indicated that contaminated soil existed underneath the area adjacent to the fueling canopies and USTs. Additional soil borings were advanced to better define the lateral extent of the soil contamination by collecting soil samples around the periphery of the known contaminated area. Shallow soil samples were not collected, because the soil had been previously identified and strong gasoline odors were still present in the soil during the investigation. The vertical extent of contamination was better defined by collecting and analyzing soil from just above or at the groundwater table (possible smear zone) and from below suspected contamination to delineate the maximum depth of contamination (this included sampling within the underlying glacial till).

Groundwater collected from temporary wells installed in previous Site soil borings contained concentrations of COCs. However, contaminant concentrations in temporary wells may be artificially increased due to turbidity from the drilling action. During the Data Gaps Investigation, monitoring wells were installed to collect groundwater samples that were more representative of subsurface groundwater conditions to evaluate for the presence of contaminants.

Potential Vapor Intrusion

Soil and groundwater contamination, including gasoline and BTEX, have been identified on the Site near and adjacent to existing buildings. Since gasoline and BTEX readily partition from soil and groundwater into a vapor or gaseous phase, this creates the potential for migration of gasoline and BTEX as vapor through the subsurface vadose (i.e., unsaturated) zone. Chemical vapors can

potentially migrate from nearby soil and groundwater contamination into the indoor air of nearby buildings.

Two soil vapor monitoring points were installed adjacent to the Market building to evaluate the potential for vapor intrusion into the Market. The vapor monitoring points were installed immediately adjacent to the Market exterior wall closest to the known subsurface contamination. The existing structures on the Site are unoccupied and will be demolished during 2020.

Potential Contaminant Migration in Nearby Utility

The investigation included an assessment regarding the potential for preferential groundwater flow, and associated contaminant transport, along the nearby sewer utility alignment. Utilities backfilled with reworked native material and fill are often more permeable than the surrounding soil and can transmit water at greater rates than undisturbed native soils. Therefore, utility lines can act as preferential pathways for the contaminated groundwater transport and can distribute contamination beyond typical subsurface transport processes. The effect can be especially pronounced when fine-grained sediments (silt and clay) comprise a large proportion of the native soil types such as at the Site. Groundwater was sampled from within, or near, the sewer utility trench line at MW-3-19, SB-9-19, and MW-5-20 to determine if contaminants had reached the utility backfill.

Groundwater Flow and Aquifer Data

Groundwater flow direction had not previously been calculated or triangulated for the Site. This Data Gaps Investigation evaluated the groundwater flow direction by installing monitoring wells and collecting groundwater-level data. Groundwater equipotentials and perpendicular flow directions were triangulated and estimated as part of this investigation.

Falling-head and rising-head slug tests were conducted within two wells to estimate hydraulic conductivity for the shallow perched aquifer at the Site. Hydraulic conductivity quantifies the ease at which groundwater and contaminants (if present) migrate through the subsurface via advective groundwater flow. Hydraulic conductivity, therefore, is an essential parameter in evaluating the fate and transport of subsurface contaminants and can also inform remedial design.

Results of 2019 Data Gap Investigation

Field methodology and boring logs for the 2019 Data Gaps Investigation are provided in Appendix J. Laboratory analytical results for the 2019 Data Gaps Investigation are provided in Appendix K. Soil, groundwater, and soil gas laboratory analytical data collected from the Site have been summarized and tabulated in Exhibits 9, 10, and 11, respectively.

In addition, for spatial reference, locations where soil and groundwater analytical results for COCs that exceeded CULs have been included as Exhibits 12 through 14. Exhibit 12 displays soil exceedances, Exhibit 13 displays reconnaissance groundwater exceedances, and Exhibit 14 displays low-flow groundwater monitoring well sample results. A tabular summary of completed borings and monitoring wells is provided as Exhibit 15.

Contaminant Nature and Extent

The nature of Site contamination was found to be generally consistent with previous environmental assessments. The detected soil and groundwater impacts are generally consistent with releases of unleaded gasoline to the subsurface in the vicinity of the USTs and fueling islands. BTEX compounds (constituents of gasoline) were also detected in the subsurface and often exceeded CULs where the gasoline contamination exists. Chromatographs of the petroleum hydrocarbon laboratory analyses show some samples of gasoline-impacted soil and groundwater are more weathered than others. In addition, some gasoline analytical results have lower concentrations of the volatile BTEX compounds than other samples. This depletion of BTEX compounds may indicate that the more volatile compounds have partitioned out into the gaseous phase, indicating longer residency time and likely older gasoline contamination. Since the BTEX ratios and gasoline results and chromatographs indicate variable degrees of weathering, this further indicates the potential for multiple releases to have occurred over time.

The lateral extent of contamination was found to be farther than previously estimated to the northwest, north, and northeast. Much of the contaminant migration appeared to be at depth, likely due to contamination being sourced by the migration of contaminated groundwater within the sandy unit perched on the till. Gasoline and associated BTEX were detected above MTCA CULs in deeper soil but not in overlying soil in SB-2-19, SB-5-19, SB-6-19, and SB-9-19 (Exhibit 12).

Site contamination in groundwater appears to have migrated offsite and intersected with the combined sewer line to the north. Contaminated groundwater then appears to have preferentially migrated along the combined sewer line but no farther than well MW-5-20, as demonstrated by detections of COCs above CULs at MW-3-19 and SB-9-19 and non-detections of COCs in soil and groundwater at H-691p-16, H667p-15 and MW-5-20 (Exhibits 13 and 14).

The vertical extent of contamination was found to be bounded by the glacial till unit acting as an aquitard (no-flow boundary) and preventing downward migration beyond the top of this horizon. This was exemplified at soil boring SB-1-19 (renamed as recovery well RW-1-19), which was advanced approximately 30 feet beyond the till surface with no indication (field observation or laboratory testing) of contamination, while soil above the till layer was heavily contaminated. Contamination was detected in shallow soils near the USTs and fueling islands, indicating nearby releases.

Assessment for Potential Vapor Intrusion

The potential for vapor intrusion into the Market building was assessed by installation of two soil gas monitoring points. The soil gas monitoring points were installed adjacent to the Market building near known contamination (Exhibit 2) at 5 and 15 feet bgs. A soil gas sample was not collected from 15 feet, because the sample point was saturated at the time of sampling. The soil gas sample from 5 feet bgs did not exceed indoor air CULs (Exhibit 11). As this sample would reflect a "worst-case" scenario for indoor air (by assuming indoor air and soil gas adjacent to the building are at equilibrium), it is unlikely that the indoor air in the Market building currently has concentrations above the human health exposure limits from the nearby gasoline-related contamination.

Groundwater Contaminant Migration in Nearby Utility

Groundwater with concentrations of petroleum hydrocarbons and BTEX, sourced from the Site, have reached the combined sewer and have migrated along this utility trench as a preferential flow conduit.

Investigation locations MW-4-19, SB-2-19, and SB-6-19 were installed between known contamination extents and the nearby combined sewer. Soil borings SB-2-19 and SB-6-19 were found to have concentrations of contaminants in soil at depth and/or groundwater exceeding CULs. SB-2-19 and SB-6-19 are downgradient of the Site contaminant source zone, and CUL exceedances within these borings indicate groundwater has transported contaminants to the nearby combined sewer trench.

Investigation locations MW-3-19, SB-9-19, and MW-5-20 were installed near or within the reworked native material (backfill) surrounding the combined sewer. MW-3-19 and SB-9-19 had gasoline and BTEX contaminants in soil and groundwater at concentrations exceeding CULs. MW-5-20, installed farther along (downgradient) the utility corridor, did not have detectable concentrations of gasoline or BTEX contaminants in soil or water (Exhibit 14).

Groundwater Flow and Aquifer Data

A potentiometric surface map was created for the Site (Exhibit 7) based on groundwater elevation data collected on October 17, 2019. Groundwater flow directions were calculated using three-point triangulation, survey data, and assumptions. Calculated and estimated groundwater flow directions are to the north and northeast in the vicinity of the Site. The seasonal effects on the groundwater flow direction are not known.

Slug testing conducted on MW-4-19 and RW-1-19 indicates that the bulk subsurface hydraulic conductivity is estimated to be between 1.6E-06 and 1.8E-06 feet per second (ft/sec). This hydraulic conductivity is representative of fine sand and silt (Schwartz and Zhang, 2003). One falling-head and one rising-head test was performed within MW-4-19. Two rising-head tests were performed within RW-1-19. A falling-head test was not undertaken within RW-1-19 due to the presence of groundwater contamination. The slug test data was analyzed using Aqtesolv®, a groundwater program, to solve for the bulk hydraulic conductivity. Aqtesolv® plots and solutions are included in Appendix L. A table summarizing analyses and hydraulic conductivity results is included as Exhibit 16.

Subsurface Survey

Another subsurface survey was conducted at the Site during 2019 using GPR technology. Similar to the 2018 subsurface survey, no additional USTs were located at the Site. However, an area in the vicinity of MW-2-19 had an anomalous GPR signal. The GPR signal was indicative of coarser backfill material and it is suspected that the backfill may have been placed after a tank removal, since the anomalous GPR signal was limited to an area of approximately 8 by 6 feet.

Conceptual Site Model and Pathways

A conceptual Site model has been developed for the relevant pathways and identified Site COCs to assess the impact to human health and/or the environment. This section includes a discussion of the COCs followed by an evaluation of the applicable pathways along which the contaminants may migrate to potential on- and off-site receptors.

Contaminants of Concern (COCs)

The section provides a summary of the COCs for the Site and discusses the locations and extent in soil and groundwater of the COCs.

The Site has been used as an active gasoline fueling facility since 1926. In addition, the Site formerly operated as an auto repair facility and Market. Three gasoline USTs were temporarily closed in place in January 2020, including two 10,000-gallon unleaded gasoline USTs and one 5,000-gallon unleaded gasoline UST. The USTs were connected to two fueling islands via underground piping constructed of single-walled fiberglass. The two fueling islands contained ten individual gasoline pumps. A former 300-gallon Waste Oil UST associated with the automobile service and repair shop was closed in place in 2000. Other potential sources of contamination primarily include occasional spills during refueling (as previously documented) and service/repair activities. As the Site is paved, surface spills or oils in the oil-water separator could potentially drain to catch basins where leaks in the conveyance lines could cause a release to the subsurface. Additionally, there were numerous cracks observed in the surface paving that also likely provided pathways for migration of spills from the surface to the subsurface.

The primary COCs associated with Site operations include gasoline-range petroleum hydrocarbons and associated volatile components of gasoline and BTEX. These COCs are the most widespread in the subsurface and have elevated concentrations in soil and groundwater throughout much of the Site.

In addition to BTEX, there were various other gasoline-related VOCs detected at the Site, including 1,2,4-trimethylbenzene, 1,2-dichloroethane, 1,3,5-trimethylbenzene, naphthalene, n-butylbenzene, n-propylbenzene, 1-methylnaphthalene, and 2-methylnaphthalene. These VOCs are considered not to be Site COCs, because they are associated with petroleum products (or natural derivatives) and they invariably coincide with detected gasoline and BTEX contamination. In addition, most of these various VOCs are so infrequently detected (e.g., 1,2-dichloroethane detected in one of 22 samples, or 4.5%) that the statistical variance is too low to analyze with statistical methods outlined by Ecology (Ecology, 1992).

Diesel- and lube-oil-range petroleum hydrocarbons were detected at concentrations exceeding their CULs; however, many of the diesel-range detections were noted by the laboratory to be high as a result of high gasoline-range petroleum hydrocarbon concentrations in the samples. One soil sample (H-19-18) and five groundwater samples contained lube-oil-range petroleum hydrocarbons in exceedance of CULs that do not appear to be sourced from the predominant gasoline contamination at the Site but rather the Waste Oil UST and the associated auto repair activities.

Petroleum hydrocarbons in the soil and/or groundwater often contain cPAHs. cPAHs are more commonly associated with heavier ranges of petroleum hydrocarbons, which, as noted above, are not prevalent at the Site. On the Site, cPAHs have not been detected at concentrations exceeding CULs except at two locations and are considered not to be Site COCs. One soil sample (H-19-18) and one

reconnaissance groundwater sample (SB-7-19) exceeded the cPAH toxicity equivalency quotient. Both samples correlate with lube-oil-range contamination in the vicinity of the Waste Oil UST (SB-7-19) or the shallow subsurface near stormwater conveyance lines (H-19-18).

Metals were not detected above CULs in soil samples but were detected in several reconnaissance and monitoring well groundwater samples. Concentrations of metals typically increase in a degrading hydrocarbon plume due to leaching of metals from native soil caused by changes in the pH and Eh (oxidation-reduction potential). Metal concentrations in groundwater typically decrease as the hydrocarbon plume is remediated.

Based on the known previous uses of the Site and the frequency at which contaminants were detected during environmental investigations, the following potential COCs have been selected for further discussion in relation to soil and groundwater contamination:

- Gasoline-range petroleum hydrocarbons,
- BTEX compounds,
- Diesel- and oil-range petroleum hydrocarbons, and
- Arsenic.

Note that some of the soil exceedances offsite are attributed to contaminated groundwater migration (SB-5-19 and SB-2-19) rather than direct contamination. Migration to soil gas is not further discussed due to the concentrations being below relevant CULs.

Gasoline-Range Petroleum Hydrocarbons

Concentrations of gasoline-range petroleum hydrocarbons are present in soil and groundwater above MTCA CULs. In general, gasoline contamination is centered around the current location of the USTs and the two fueling islands. The concentrations of gasoline in soil samples collected within the contaminated zone was as high as 5,600 mg/kg (CUL of 30 mg/kg because BTEX compounds are present).

Though not encountered during investigations, free gasoline product is suspected due to the high concentration found in Site soil and groundwater. The concentration of gasoline in groundwater samples collected within the gasoline-contaminated zone was as high as 110,000 micrograms per liter (µg/L) (CUL of 800 µg/L). This concentration exceeds the gasoline solubility limit of 100,000 µg/L (Ecology, 2016b); however, free product has not been encountered during any Site investigations nor has it been observed in the recovery well (RW-1-19), which is installed within the area of high gasoline soil contamination.

Gasoline concentrations are typically the most elevated near the groundwater table, which varies across the Site and varies seasonally, but generally ranges from 10 to 20 feet bgs. Exhibit 12 presents a summary of soil sampling locations and analytical results that exceeded the CUL for gasoline. Exhibits 13 and 14 present groundwater sampling locations that exceeded the gasoline CUL for samples collected from permanent and temporary monitoring wells, respectively.

Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX)

Concentrations of BTEX are present in soil and groundwater above MTCA CULs. The general distribution of BTEX compounds in the Site subsurface closely follows that of the subsurface gasoline distribution. This distribution is expected, because BTEX compounds are chemical constituents of

gasoline. Concentrations of benzene have been analyzed to be as high as 150 mg/kg in soil (CUL of 0.03 mg/kg) and as high as 8,700 µg/L in groundwater (CUL of 5 µg/L). These high levels of benzene are not always associated with locations that have high gasoline concentrations. The highest benzene concentration in soil (150 mg/kg) was shallow, at 5 to 6.5 feet bgs (H-16-18), where gasoline concentrations were relatively low–11 mg/kg. This may be indicative of benzene volatilization and upward migration through the soil column and accumulation underneath the paved surfaces of the Site. Furthermore, as BTEX chemicals are volatile, BTEX has the potential to migrate upward and intrude into nearby structures, impacting indoor air quality and potentially completing an exposure pathway to human receptors, although the soil gas samples were below indoor air CULs.

Exhibit 12 provides a summary of soil sampling locations and analytical results that exceeded CULs for BTEX. Exhibits 13 and 14 provide a summary of groundwater sampling locations that exceeded the CUL for BTEX for samples collected from monitoring wells and temporary monitoring wells, respectively.

Diesel- and Lube-Oil-Range Petroleum Hydrocarbons

Concentrations of diesel- and lube-oil-range petroleum hydrocarbons are present in soil and groundwater above MTCA CULs. These exceedances appear to be the result of either or a combination of four causes:

- Interference with the analysis caused by high concentrations of gasoline-range hydrocarbons (laboratory data qualified with an M flag). Potentially affected locations include:
  - Grab groundwater sample from SB-2-19, SB-6-19, SB-7-19, SB-9-19.
  - Low-flow groundwater samples from MW-3-19 and RW-1-19.
- The result of leaks/drips to surface pavement that is directed to nearby stormwater conveyance lines. The wastewater conveyance lines are shown in Exhibit 2 and appear to collect stormwater and sanitary sewer discharges from the property. The wastewater lines appear to be old cast-iron lines and likely have some cracks. Potentially affected locations include soil from H-19-18 and the grab groundwater sample from H-20-18.
- Activities undertaken in the auto repair shop. Lube-oil-range hydrocarbons have previously been detected in the vicinity of the Waste Oil UST associated with the auto repair shop. Activities at the auto repair shop and a potentially leaking oil-water separator in the shop may have entered the stormwater conveyance lines and may also be responsible for the hydrocarbons detected in grab groundwater samples collected at SB-7-19.
- Lube-oil-range petroleum hydrocarbons were detected in reconnaissance groundwater samples collected from H-11-18 and H-14-18. These grab groundwater samples were reportedly collected directly from the boring without a temporary well screen and were highly turbid. Detections of lube-oil-range hydrocarbons are likely the result of hydrocarbons absorbed to suspended solids in the water sample.

As all diesel-range exceedances are associated with high gasoline concentrations (M Flags in analytical reports), diesel-range hydrocarbons are considered not to be Site COCs for soil or groundwater.

Since the one oil-range exceedance in soil (H-19-18) has been (1) delineated by surrounding borings and (2) is within the larger, more prevalent gasoline-range footprint, it is considered not to be a COC warranting further characterization. The two reconnaissance groundwater samples (H-11-18 and

H-14-18) with oil-range exceedances are located upgradient from the Site and are considered to be the result of a sampling artifact rather than specific contamination.

Metals

During the Data Gaps Investigation, groundwater samples collected from across the Site were analyzed for total and dissolved metals. Many of the groundwater samples were collected as reconnaissance samples. Reconnaissance groundwater samples commonly have high turbidity (suspended solids), and the total metals analytical result can be biased high, as many metal species tend to sorb to solids. Groundwater samples collected from monitoring wells typically are less turbid and more representative of aquifer conditions. As a result, monitoring well data is relied on in this discussion, as these samples provide a more accurate representation of metal concentrations in groundwater.

Reconnaissance groundwater samples contained concentrations of the stated metals above the CUL (Exhibit 10):

- Boring H-3-16: dissolved antimony
- Boring H-21-18: dissolved selenium
- Boring H-21-18: dissolved silver

The above results were from reconnaissance groundwater samples, and no metals (except for arsenic, which is discussed later) were detected in samples collected from properly installed and developed groundwater monitoring wells (Exhibit 13). Antimony, selenium, and silver are considered not to be Site COCs due to (1) the statistical infrequency of CUL exceedances, (2) the lack of an identifiable Site soil source for the groundwater metal CUL exceedances, and (3) the potential for reconnaissance samples to bias metal results high.

Dissolved arsenic concentrations exceeded the CUL (5 µg/L) in 19 groundwater samples (both reconnaissance and monitoring well samples). The dissolved arsenic exceedances were typically associated with the presence of petroleum hydrocarbons. In general, petroleum hydrocarbons present in the subsurface cause chemically reducing (i.e., negative Eh) conditions. In reducing conditions, arsenic will commonly be in a 3+ oxidative state. This oxidation state for arsenic is typically more mobile in the subsurface, less likely to sorb to solids, and thus tends to concentrate in groundwater. As a result, naturally occurring arsenic in soil can be mobilized and concentrated into groundwater when reducing conditions are present. Arsenic is considered not to be a Site COC, because the arsenic exceedances are likely a result of geochemical conditions associated with petroleum hydrocarbons.

COCs for the Site are gasoline-range hydrocarbons and BTEX in soil and groundwater.

Primary Sources and Transport Mechanisms

Exhibit 17 presents the conceptual model for the Site. As shown in the exhibit, the potential primary sources of contamination at the Site include the following:

- ***Leaks from Gasoline USTs***: The three gasoline USTs formerly contained unleaded gasoline. The primary substances associated with these features include gasoline-range petroleum hydrocarbons and petroleum-related volatile compounds. Elevated lead has not been detected in soil or groundwater.

- ***Leaks from the Waste Oil UST***: The Waste Oil UST is decommissioned and closed in place. The primary substance associated with this feature includes diesel- to lube-oil-range petroleum hydrocarbons and related polycyclic aromatic hydrocarbons. The Site has been adequately characterized for waste oil constituents, as numerous samples have been analyzed for halogenated VOCs, PCBs, and other metals in soil or groundwater. Other waste oil constituents have not been detected.
- ***Spills and Overflows from Fueling and Other Site Operations***: The primary substances associated with these sources include petroleum hydrocarbons and petroleum-related volatile compounds.
  - Several catch basins are located within proximity to the fueling islands. The catch basins drain the surface of the Site and are connected to the large combined sewer to the northeast (Exhibit 2). During Site investigations, the stormwater conveyance lines associated with the catch basins were noted to be old, cast-iron lines. A theoretical fueling spill would flow over paved surfaces and drain to the catch basins. A spill in the old, potentially leaky catch basin sumps and stormwater conveyance lines would cause releases to the shallow subsurface. The Site stormwater conveyances overlie areas south of the UST fueling area and pump stations and provide a pathway for gasoline to contaminate the soil and groundwater farther south as identified during investigation.
  - The pavement at the Site is old and cracked. A theoretical fueling spill released to the pavement surface could migrate through cracks in the pavement into the subsurface.
- ***Upgradient and Crossgradient Cleanup Sites***: A large combined sewer is northeast of the Site (Exhibit 2). Backfill material used to bury underground utilities commonly acts as a preferential flow conduit due to being more permeable than undisturbed native soil. The backfill material for the combined sewer contains contaminated groundwater (as detected in SB-9-19 and MW-3-19). No upgradient cleanup sites were identified; therefore, the detected contamination in the sewer backfill is likely from the Site.
- ***Vehicle Exhaust:*** Airborne combustion products and partial combustion products are typically present at sites with vehicular traffic. Concentrations of these substances at the Site are not thought to be uniquely higher than other active gas stations.

Primary potential transport mechanisms include the following:

- Gravity-driven infiltration downward in the subsurface until the groundwater table is encountered and thereafter in the direction of groundwater flow. As gasoline and BTEX are less dense than water, horizontal spreading and smear may occur at the water table due to buoyancy effects and seasonal groundwater elevation changes.
- Runoff over paved surfaces to catch basins with subsequent release to subsurface through leaky sumps or conveyance lines.
- Migration of groundwater contamination along the combined sewer backfill located to the northeast and north.
- Upward migration (vapor or airborne transport) of volatile contaminants from soil and groundwater. These contaminants may concentrate below paved surfaces or infiltrate into nearby buildings.

Investigations have historically identified high concentrations (compared to CULs) of gasoline-range petroleum hydrocarbons and BTEX in soil and groundwater at the Site. COC detections have been orders of magnitude above CULs. The most significant contaminants, in terms of extent and concentrations compared to CULs, observed at the Site are gasoline-range petroleum hydrocarbons

and benzene. As such, these contaminants are considered primary pollutants for the Site and will drive subsequent remediation. Soil gas concentrations of the COCs were below the CULs.

The gasoline-range petroleum hydrocarbon concentrations in soil have been as high as 5,600 mg/kg (CUL of 30 mg/kg) and as high as 110,000 µg/L in groundwater (CUL of 800 µg/L).

Benzene concentrations have been detected as high as 150 mg/kg in soil (CUL of 0.03 mg/kg) and as high as 8,700 µg/L in groundwater (CUL of 5 µg/L).

Exposure Mediums, Exposure Pathways, and Potential Receptors

Potential exposure mediums and pathways associated with the Site include the following:

- Groundwater (direct contact or ingestion)
- Soil (direct contact and ingestion)
- Vapor (inhalation)

Potential receptors include on- and off-site human receptors and ecological receptors.

Current On-Site Human Receptors

The Site is currently closed to the public, gated off with a lock, and accessible to only WSDOT SR 520 Bridge Replacement and HOV Program workers. Areas of soil and groundwater contamination are largely overlain by paved surfaces, so exposure via direct contact or ingestion would be limited.

Site groundwater is not a source of drinking water, and there is not a route for direct contact with groundwater for Site workers.

Though VOCs have been detected in soil and groundwater, soil gas monitoring points (SG-1-19 and SG-2-19) installed between the contamination and the Market building indicate that concentrations are less than the indoor human health exposure values; therefore, workers at the Market are not being exposed to VOC concentrations above CULs that could intrude to the indoor air. Vehicle exhaust may expose Site workers via inhalation pathways; however, the concentration of airborne contaminants due to vehicle exhaust at the Site is not assumed to be elevated compared to other gas fueling sites.

Future On-Site Human Receptors

The proposed future use is redevelopment and construction for the WSDOT SR 520 Bridge Replacement and HOV Program. Future on-site human receptors include construction workers involved with the proposed redevelopment and associated subsurface work. Potential exposure pathways to construction workers include direct contact or ingestion of groundwater and soil and the inhalation of soil particles or soil vapor during construction activities. These pathways are considered complete.

Construction workers, or other workers working in the contaminated area when the paved surface is removed, may be exposed by direct contact and/or inhalation. Inhalation exposure of volatile BTEX chemicals may occur because the data suggests BTEX may be accumulating just below the pavement. Should construction require excavation to the groundwater table (approximately 10 to 20 feet bgs depending on location and season), direct contact exposure to groundwater could occur.

Site redevelopment will likely result in paved surfaces throughout the Site after remedial actions have been undertaken to remove the source material. Drinking water at the Site is supplied by the City, and no drinking water wells were identified in the vicinity of the Site. Direct contact, ingestion, and inhalation from groundwater, on-site accumulated stormwater, soil, and soil vapor are considered incomplete pathways to potential future Site occupants.

Off-Site Human Receptors

Site groundwater is not a source of drinking water to off-site human receptors. Contaminated groundwater has reached the backfill of the nearby combined sewer (Exhibit 2). This utility appears to act as a preferential pathway to transport Site groundwater to the north but not as far as the surface water of Lake Washington near the Montlake Cut. Off-site human receptors could potentially be exposed to Site contamination via direct contact with off-site groundwater, vapor in nearby sewer maintenance shafts, and via ingestion of soil during construction work and are considered complete pathways.

Ecological Receptors

Exposure pathways to current terrestrial ecological receptors are incomplete, as the Site and the surrounding area is paved. A TEE has been completed for the Site. Results of the TEE are included and discussed in the following section, Selection of Appropriate Cleanup Standards.

Selection of Appropriate Cleanup Standards

This section discusses the selection of applicable or relevant and appropriate screening levels to evaluate the extent of contamination and potential risks to human health and the environment from Site contaminants. CULs have been developed based on Site history and detections within each medium.

MTCA specifies that CULs must be set in consideration of the reasonable maximum exposure that is expected to occur at the property. Reasonable maximum exposure is defined as "the highest exposure that can be expected to occur for a human or other living organism at a site under current and potential future site use" (WAC 173-340-200). In accordance with MTCA, CULs were developed based on the reasonable maximum exposure anticipated to occur for humans and ecological receptors exposed to soil, groundwater, and air at the Site.

At the time of this report, it is anticipated that the model remedy approach will be used. Model Remedy 2 for groundwater cleanup will be applied to the Site (Ecology, 2017). Model Remedy 2 CULs are guided by MTCA-A CULs for unrestricted land use. As part of Model Remedy 2, it is acknowledged that some soil may be left in place in exceedance of MTCA-A CULs due to one or more structural impediments. For the Site, this would be the inability to remove all the contaminated soil near the combined sewer line.

Soil Cleanup Levels (CULs)

CULs were developed for soil for protection of human health and the environment for the following receptors:

- Construction workers
- Commercial workers

WAC 173-340-705[6] states that a CUL for a given constituent shall not be set lower than the practical laboratory quantitation limit or the natural background concentration, whichever is higher. Soil CULs were selected based on the lowest of the applicable screening values that are protective of the above-listed receptors and then adjusted based on background concentrations. The background metals concentrations used are the Puget Sound Region 90th percentile values reported by Ecology (1994). The selection of the values for use in the soil screening and rationale for their selection are discussed below.

Proposed Land Use Consideration

The Site is currently closed with limited access. However, redevelopment is planned as part of the SR 520 project, and commercial workers, patrons, or residents are not expected to be on the Site until after remedial activities have been undertaken. Post-remediation, the Site may be developed for commercial or residential purposes. Consequently, MTCA-A Unrestricted Land Use values for direct contact were selected for consideration.

Terrestrial Ecological Evaluation (TEE)

A simplified TEE was performed for the Site. The simplified TEE found that no further evaluation was necessary using the Pathway Analysis (WAC 173-340-7492(2)b) and determined there is "no

potential exposure pathway from soil contamination to ecological receptors." The simplified TEE form is provided as Appendix M.

Selected Soil Cleanup Levels (CULs)

CULs for soil were selected as MTCA-A Unrestricted Land Use values for direct contact and protection of drinking water. When the natural background concentration for a compound was greater than the applicable screening levels, the background concentration was selected as the CUL.

Groundwater Cleanup Levels (CULs)

MTCA specifies that groundwater CULs be based on the highest beneficial use and reasonable maximum exposure expected to occur under both current and potential future Site use conditions (WAC 173-340-720[1][a]). CULs for groundwater were developed in consideration of current and future use of the Site and the highest beneficial use of the groundwater as drinking water, as the project does not qualify for a non-potable drinking water designation. Given that the groundwater contamination does not extend to the Montlake Cut, Portage Bay, or Lake Washington downgradient of the property, surface water values are not considered to be appropriate for this project. Criteria established for the protection of indoor air were also considered.

The selected groundwater CULs are MTCA-A values for groundwater and are protective of drinking water. Natural background concentrations were selected in the absence of a CUL or if background concentrations are greater than the applicable screening levels.

Soil Gas Screening Levels

The two most stringent, applicable screening criteria for soil gas concentrations are listed under MTCA Method B. Cancer and non-cancer MTCA Method B screening levels for sub-slab soil gas have been selected for comparison to soil gas data collected at the Site.

Points of Compliance

The point of compliance for human direct contact with soil based on a reasonable maximum depth of excavation and the assumption that excavated soil may be placed at the surface where contact occurs is 15 feet bgs (WAC 173-340-740(6)(d)).

The standard point of compliance for groundwater is throughout the Site from the uppermost level of the saturated zone at approximately 10 to 20 feet bgs extending vertically to the lowermost depth that could potentially be affected by the Site (WAC 173-340-720(8)(b)), which is approximately 25 feet bgs at the deepest point.

The point of compliance for the protection from vapors in soil is throughout the Site from the ground surface to the uppermost groundwater saturated zone, which is approximately 10 feet bgs (WAC 173-340-740(6)(c)).

Summary of Findings and Conclusions

Investigations completed to assess the extent of Site contamination have included the collection and analysis of soil, groundwater, and soil gas (Exhibit 2 and Exhibits 9, 10, and 11). Investigations have identified that historical releases to the subsurface have occurred at the Site and include the following:

- Concentrations of petroleum hydrocarbons, especially within the gasoline range, in soil and groundwater, exceed CULs by orders of magnitude. Petroleum hydrocarbons have been detected in the shallow subsurface close to the USTs and along the stormwater conveyance lines down to a depth of approximately 25 feet bgs in the north of the gas station property. The shallow contamination on the gas station property is indicative of releases to the subsurface from the Site fueling activities. Based on interpretation of the chromatographs for the petroleum hydrocarbons and the ratios of BTEX from laboratory analyses, multiple releases may have occurred over time. Petroleum hydrocarbons appear to have migrated downgradient via advective groundwater transport to the permeable sand unit above the glacial till and migrated through the sand toward the northeastern sewer line backfill. This is evident in borings SB-2-19 and SB-9-19, where contamination is not present until relatively deep in the borings where the relatively permeable sand unit was encountered (refer to Exhibits 3 and 4).
- Diesel- and lube-oil-range petroleum hydrocarbons were also detected at concentrations exceeding CULs. Many of these exceedances were coincident with high gasoline concentrations, and the laboratory report notes that the diesel-range concentrations in these samples may be influenced by the high gasoline concentrations. One lube-oil-range detection was detected without gasoline at 5 feet bgs in boring H-19-18. This boring was located close to the wastewater line, and shallow contamination here is likely due to a leaky stormwater line sourced from the auto repair shop activities.
- Concentrations of BTEX compounds, especially benzene, in soil and groundwater exceeded CULs by orders of magnitude. The nature and extent of BTEX compounds in the subsurface is similar to that of gasoline. BTEX compounds are constituents of gasoline, so the coincident nature of BTEX and gasoline, as observed at the Site, is expected. In some shallower soil samples with high BTEX concentrations exist with relatively low gasoline concentrations. These samples may indicate the volatilization of the BTEX compounds from gasoline with subsequent upward vertical migration through the soil column. These volatile compounds may concentrate over time in shallow sub-pavement soils, as the pavement would act as a cap to the upward vertical migration of these volatile compounds.
- Arsenic and other metals detected in groundwater at the Site appear to be naturally occurring and not associated with contamination. Lead is not present above CULs.
- The underlying glacial till topography deepens to a trough toward the northeast (nearly coincident with the sewer line location) and is at a higher elevation both in the northwest and south of the Site. This underlying topography likely drives groundwater flow and gradient.
- Gasoline-range petroleum hydrocarbons and BTEX compounds have migrated off the Site to the north and northeast likely via advective groundwater transport, as this is the groundwater flow direction in the vicinity of the Site (Exhibit 7). The groundwater flow and contaminant migration have been observed mostly in the more permeable and saturated sand that is encountered above the glacial till. Profile A-A' (Exhibit 3) displays this feature near SB-2-19, as contamination is present in the deep sand unit but is not in the overlying soil .

- Gasoline-range petroleum hydrocarbons and BTEX compounds have infiltrated the backfill associated with the nearby combined sewer line and have migrated west in groundwater along the backfill of the utility at least as far as MW-3-19. Groundwater contamination was not present farther downgradient along the utility line at MW-5-20 north of the Site, at H-667p-15 to the northwest of the Site, or at H691p-16 to the northeast of the Site and beyond the sewer line. This indicates that the extent of groundwater contaminant migration is between MW-3-19 and MW-5-19 along the sewer alignment.
- Groundwater at the Site flows toward the north and northeast based on water level measurements collected on October 17, 2019. Groundwater table elevations are expected to fluctuate by approximately 10 feet throughout the year based on nearby piezometer H-691p-16 (Exhibits 2 and 6). Groundwater elevations are expected to be highest during April (typical end of wet season) and lowest during September (typical end of dry season).
- Slug testing conducted on MW-4-19 and RW-1-19 indicates that the bulk subsurface hydraulic conductivity is estimated to be between 1.6E-06 and 1.8E-06 ft/sec (Exhibit 16). This hydraulic conductivity value is consistent with typical hydraulic conductivities for unconsolidated silt and fine sand (Schwartz and Zhang, 2003).
- A former gas station to the north of the Site was present from approximately 1926 through 1962 prior to the construction of the SR 520 on/offramp. Contamination identified on the Site is unlikely to be from this former gas station, as extensive excavation occurred during the installation of the sewer lines and SR 520 construction that would have removed soil beneath the facility. This facility is also downgradient. If present, residual groundwater contamination from petroleum hydrocarbons would have degraded since the 1960s and most likely would have been detected in groundwater at monitoring well H-667p-15, a monitoring well close to the location of this former gas station.

Investigations at the Site have identified contamination and determined the approximate lateral and vertical extent in soil and groundwater. Laterally, the contamination is centered around the Site USTs and fueling islands with some migration to the north and northeast (Exhibits 13 and 14). Vertically, the contamination is shallowest near the suspected release areas (i.e., the USTs and fueling islands) and does not appear to extend below the glacial till surface with a maximum depth of approximately 25 feet bgs (Exhibits 3 and 4).

The extent of groundwater contamination along the nearby sewer utility backfill is bounded by MW-5-20, which is the farthest northern location investigated, where a monitoring well was installed within or near the backfill of the combined sewer utility. There were no detectable contaminants in soil or groundwater samples collected from MW-5-20 (Exhibit 14).

Remedial Activities

The Site has been characterized and approximate limits of soil and groundwater contamination established (Exhibits 12, 13, and 14) with a level of confidence such that remediation is the next environmental action for the Site. Remedial excavation of the contamination is anticipated to commence in spring of 2021. In advance of excavation, the USTs have been temporarily closed in place during January 2020, and the USTs will be permanently removed as part of the remedial excavation. Prior to excavation activities, oxygen-releasing compounds will be placed in two groundwater monitoring wells (RW-1-19 and MW-3-19) to degrade contaminants and reduce offsite migration of contamination.

In the spring of 2021, or earlier based on the construction schedule, the USTs and soil source material will be removed by excavation and monitoring wells within the excavation decommissioned. Groundwater will be managed as contaminated and treated before disposal. Health and safety monitoring and engineering controls will be undertaken to manage dust-, water-, and air-associated items.

The estimated extent of the excavation is provided in Exhibit 18. The excavation limits to the northwest, north, and northeast would likely be shored to protect the roadways, and traffic will be diverted for the duration of the off-property work. Prior to backfilling the excavation, oxygen-releasing compounds will be placed at the base to mitigate offsite groundwater contamination. Monitoring well MW-3-19 will be monitored to demonstrate that groundwater contamination is mitigated and that the CULs are not exceeded outside the property boundary.

Cleanup activities will comply with the Model Remedy for Gasoline Contaminated Groundwater (Ecology, 2017). Model Remedy 2 will be applied to govern Site remediation activities. It is expected that soil MTCA-A CULs will be achieved across the Site, with a small exception for potential contamination left near the combined sewer due to impracticability of excavation near this large utility. It is expected that once the vast majority of the source zone is removed, and with the addition of oxygen-releasing compounds within the base, groundwater CULs will be achieved within a couple of years of the source removal activities. Groundwater monitoring will be undertaken post-excavation to ensure CULs are met.

Limitations

Shannon & Wilson has reviewed historical records and conducted subsurface explorations on the Site. We have examined and relied on documents referenced in the report. We have not conducted an independent examination of the facts contained in referenced materials and statements. We have assumed that these documents are genuine and that the information provided in these documents and statements is true and accurate. We have no knowledge or indication to the contrary unless otherwise stated in the body of the report.

The data presented in this report are based on limited research and sampling at the Site; other areas of contamination that were not identified during investigations could be present at the Site. Conditions referenced in this report may change over time. The conclusions set forth here are applicable to the facts and conditions as described only at the time of this report. Shannon & Wilson believes that the conclusions stated here are factual, but no guarantee is made or implied. Shannon & Wilson has prepared Appendix N, "Important Information About Your Environmental Site Assessment/ Evaluation Report," to help you and others understand the use and limitations of our report.

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0 1,000 2,000

Approximate Scale in Feet

NOTE

Bing Map Image adapted from aerial imagery provided by Autodesk Live Maps and Microsoft Bing Maps reprinted with permission from Microsoft Corporation.

Montlake Gas Station VCP
Remedial Investigation Report
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VICINITY MAP

March 2020 21-1-22242-104

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Exhibit 1

Filename: J:\211\22242\101\21-1-22242-101 Vicinity Map.dwg Date: 06-25-2019 Login: JRS

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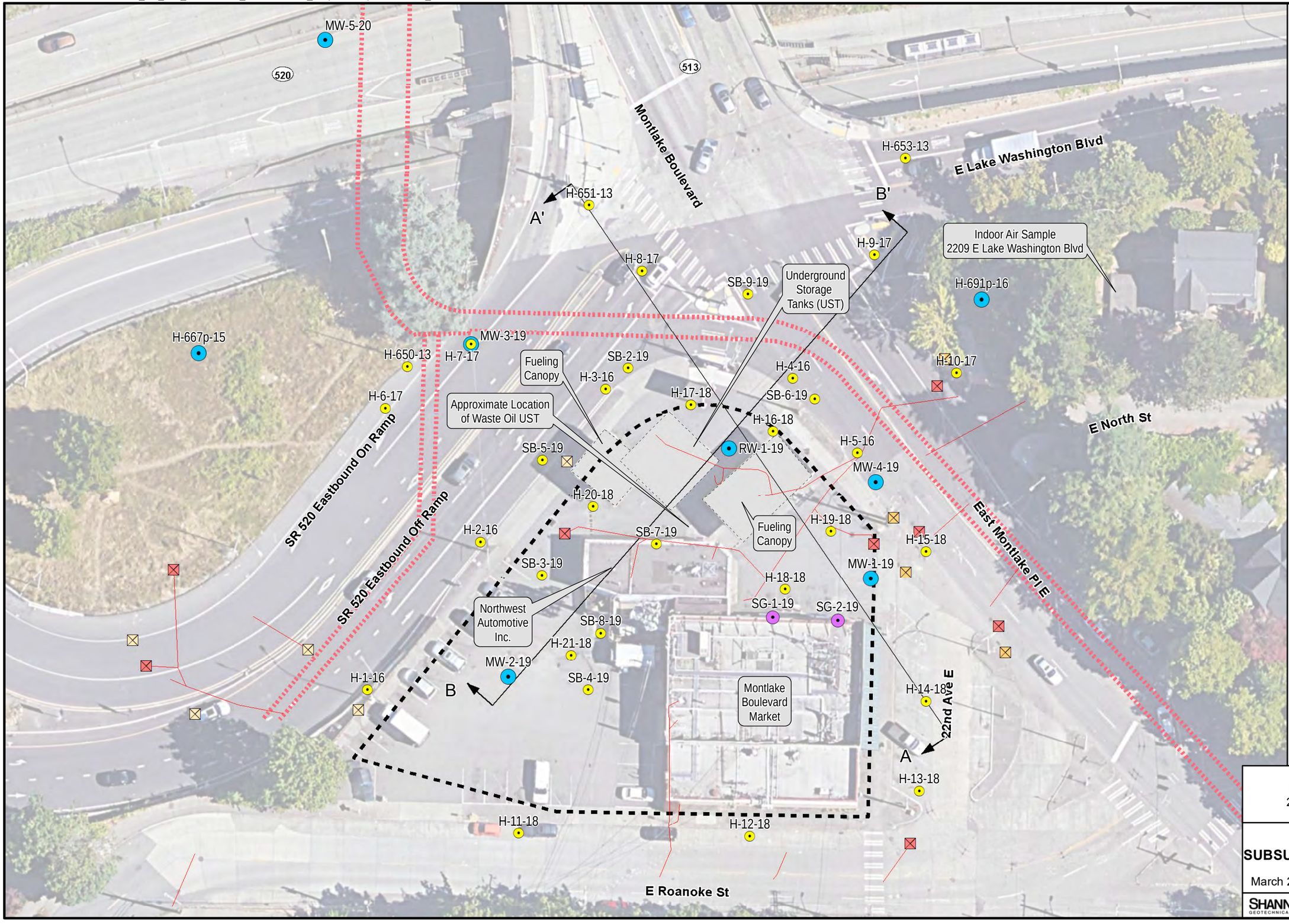

LEGEND

EXPLORATIONS

Soil Borings

Groundwater Monitoring Well

Soil Gas Probes

Subsurface Profile Location Line

Existing Utility - Catch Basin

Existing Utility - Inlet

Existing Utility - Wastewater Pipe

Existing Utility - Sewer Line

King County Parcel Boundary
Public Right of Way Limit

NOTE:
All Existing Utility data should be considered approximate.
City of Seattle, 2019

N
W E
S

0 40
Feet

Montlake Gas Station VCP
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Seattle, WA

SITE MAP AND SUBSURFACE PROFILE LOCATIONS

March 2020 21-1-22242-104

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

EXHIBIT 2

A
Southeast

A'
Northwest

Property Location

Sewer Line

H-14-18 (Proj. 0')
SG-2-19 (Proj. 14.5' NE)
MW-1-19 (Proj. 10' SW)
H-19-18 (Proj. 7' SW)
SB-1-19/RW-1-19 (Proj. 9' NE)
H-16-18 (Proj. 7' SW)
H-17-18 (Proj. 3' SW)
SB-2-19 (Proj. 27' NE)
H-651-13 (Proj. 0')

80
60
40
20
0
-20

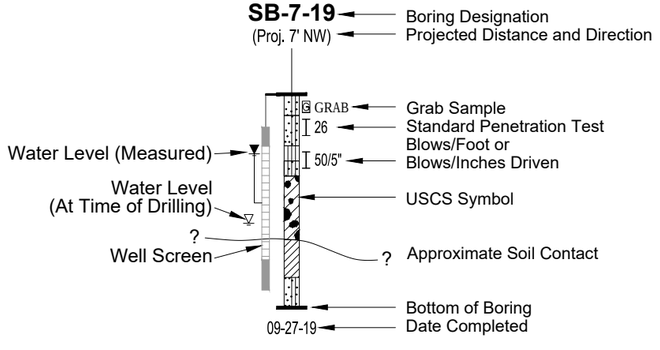
05-26-18
09-24-19
12-06-18
09-26-19
12-03-18
12-04-18
08-24-19
07-08-13

Distance

Filename: J:\21\122242\104\21-1-22242-104 Plan and Profiles.dwg Layout: Exhibit 3 Date: 03-09-2020 Login: JRS

BORING LOG LEGEND

(Project Boring)



LEGEND

- Conceptual Exacavation Line for Sewer Line Installment and Approximate Sewer Line Location
- Approximate Extent of Contamination Based on Field Observation and Laboratory Testing
- Water Table Elevation (Measured 10/17/2019)
- Sandy Silt to Silty Sand with Local Silty Clay, Nonplastic to Medium Plasticity, Gray to Brown Gray, Dry to Wet
- Sand to Silty Sand, Trace Gravel, Gray to Dark Gray, Wet
- Glacial Till. Very Dense, Diamict, Dry to Moist, Silty Sand and Sandy Silt, Scattered Gravel
- Groundwater Sample with Concentrations of Gasoline (Primary Site Contaminant) Above MTCA Cleanup Levels
- Soil Sample with Concentrations of Gasoline (Primary Site Contaminant) Above MTCA Cleanup Levels
- Soil Sample with Concentrations of Gasoline (Primary Site Contaminant) Below MTCA Cleanup Levels
- Proposed Excavation Extent

0 20 40

Scale in Feet
Horizontal = Vertical

Montlake Gas Station VCP
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CONCEPTUAL SUBSURFACE CONTAMINANT PROFILE A-A'

March 2020 21-1-22242-104

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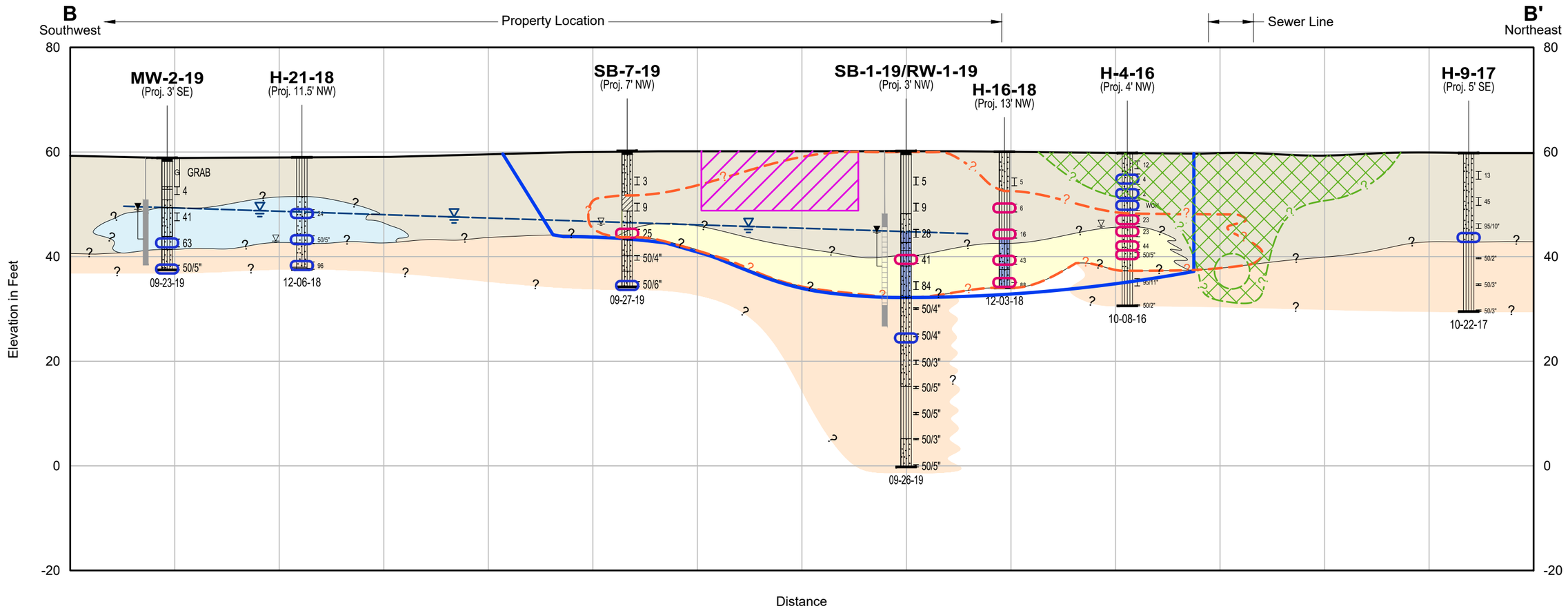
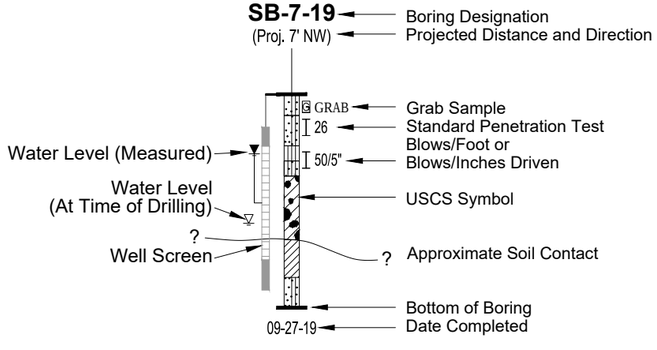
EXHIBIT 3



BORING LOG LEGEND

(Project Boring)



LEGEND

- Conceptual Exacavation Line for Sewer Line Installment and Approximate Sewer Line Location
- Approximate Extent of Contamination Based on Field Observation and Laboratory Testing
- Water Table Elevation (Measured 10/17/2019)
- Sandy Silt to Silty Sand with Local Silty Clay, Nonplastic to Medium Plasticity, Gray to Brown Gray, Dry to Wet
- Gravelly Silty Sand, Gray to Brown Gray, Moist to Wet
- Sand to Silty Sand, Trace Gravel, Gray to Dark Gray, Wet
- Glacial Till. Very Dense, Diamict, Dry to Moist, Silty Sand and Sandy Silt, Scattered Gravel
- Groundwater Sample with Concentrations of Gasoline (Primary Site Contaminant) Above MTCA Cleanup Levels
- Soil Sample with Concentrations of Gasoline (Primary Site Contaminant) Above MTCA Cleanup Levels
- Soil Sample with Concentrations of Gasoline (Primary Site Contaminant) Below MTCA Cleanup Levels
- Proposed Excavation Extent
- Approximate Extent of UST Fill Area

0 20 40

Scale in Feet
Horizontal = Vertical

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CONCEPTUAL SUBSURFACE CONTAMINANT PROFILE B-B'

March 2020 21-1-22242-104

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EXHIBIT 4

Filename: J:\21\1\22242\104\21-1-22242-104 Plan and Profiles.dwg Layout: Exhibit 4 Date: 03-09-2020 Login: JRS

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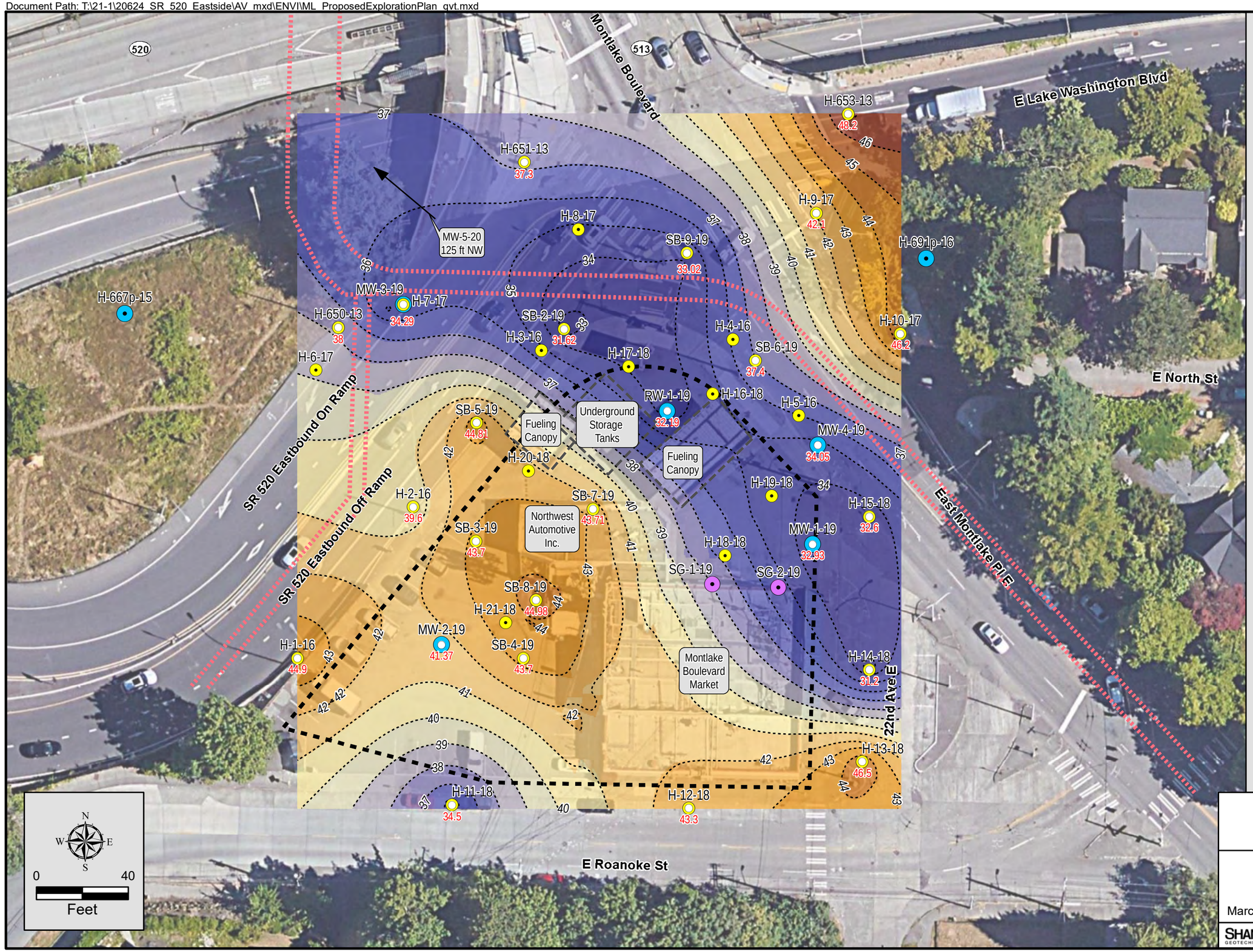

LEGEND

EXPLORATIONS

Soil Borings

Groundwater Monitoring Well

Soil Gas Probes

EXPLORATION
w/ Top of Glacial Till
Elevation Interpolated (Feet)

38.01

Approximate Top of Glacial Till (Feet)

- 32.3 - 33
- 33.01 - 34
- 34.01 - 35
- 35.01 - 36
- 36.01 - 37
- 37.01 - 38
- 38.01 - 39
- 39.01 - 40
- 40.01 - 41
- 41.01 - 42
- 42.01 - 43
- 43.01 - 44
- 44.01 - 45
- 45.01 - 46
- 46.01 - 47
- 47.01 - 48

Approximate Top of Glacial Till Contour (Feet)

-- 40 --

Existing Utility - Sewer Line

King County Parcel Boundary
Public Right of Way Limit

Elevations in NAVD 88
Approximate Ground Surface Elevation = 60 Feet

Montlake Gas Station VCP
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2625 East Montlake Place East
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TOP OF GLACIAL TILL SURFACE CONTOUR MAP

March 2020 | 21-1-22242-104

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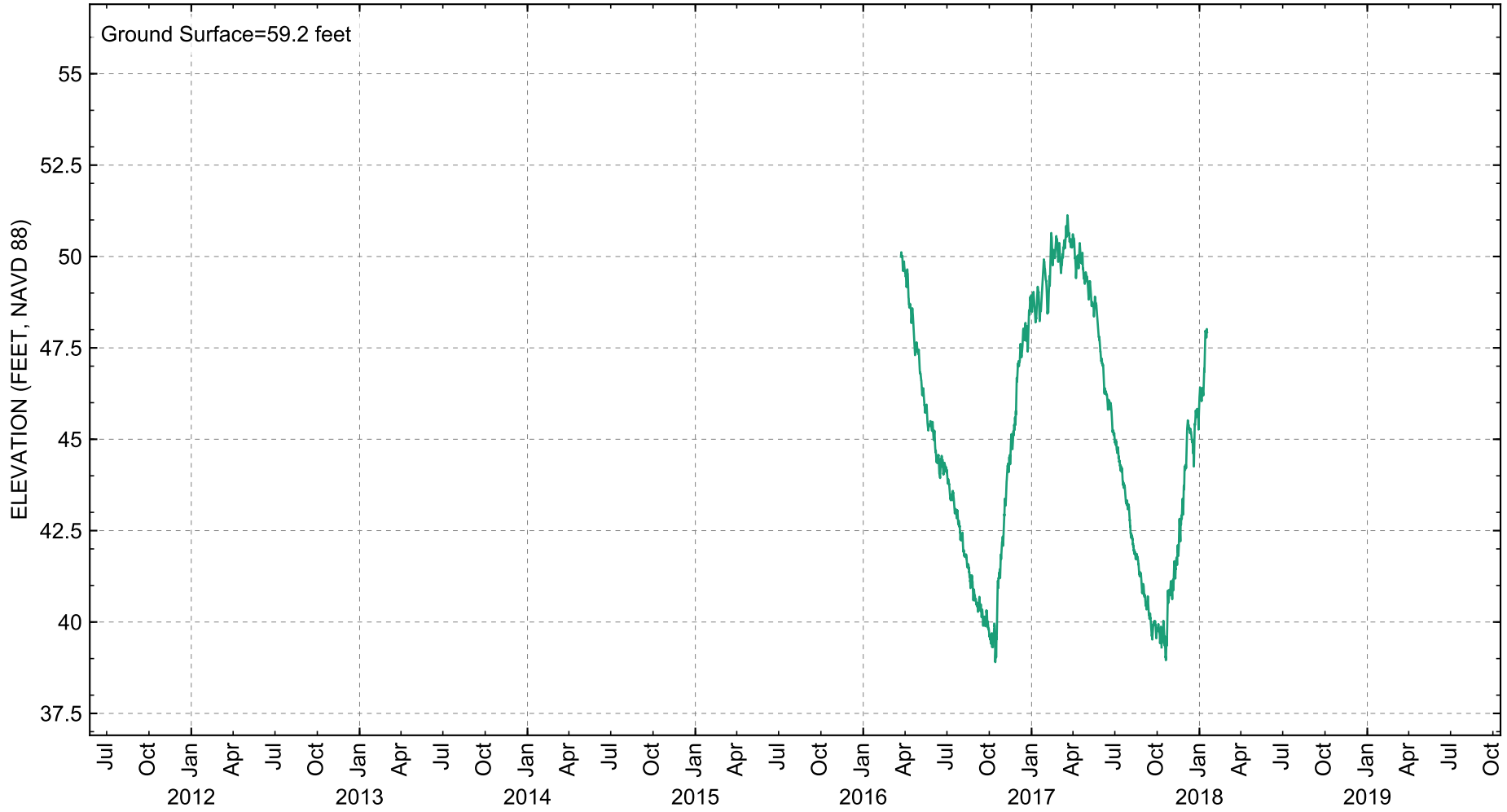
EXHIBIT 5



Instrument	Screen Bottom Elev (ft)
OW1	34.4

Notes:
1. Groundwater data provided by WSDOT
2. Measurements are shown as dry for readings below instrument elevation of pressure transducer or bottom of screen interval
3. Refer to Shannon & Wilson boring logs for soil descriptions and well construction details
4. OW = Observation Well

Exhibit 6

Montlake Gas Station VCP
Remedial Investigation Report
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Seattle, WA

GROUNDWATER LEVEL MEASUREMENTS BORING H-691p-16

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Geotechnical and Environmental Consultants

Exhibit 6

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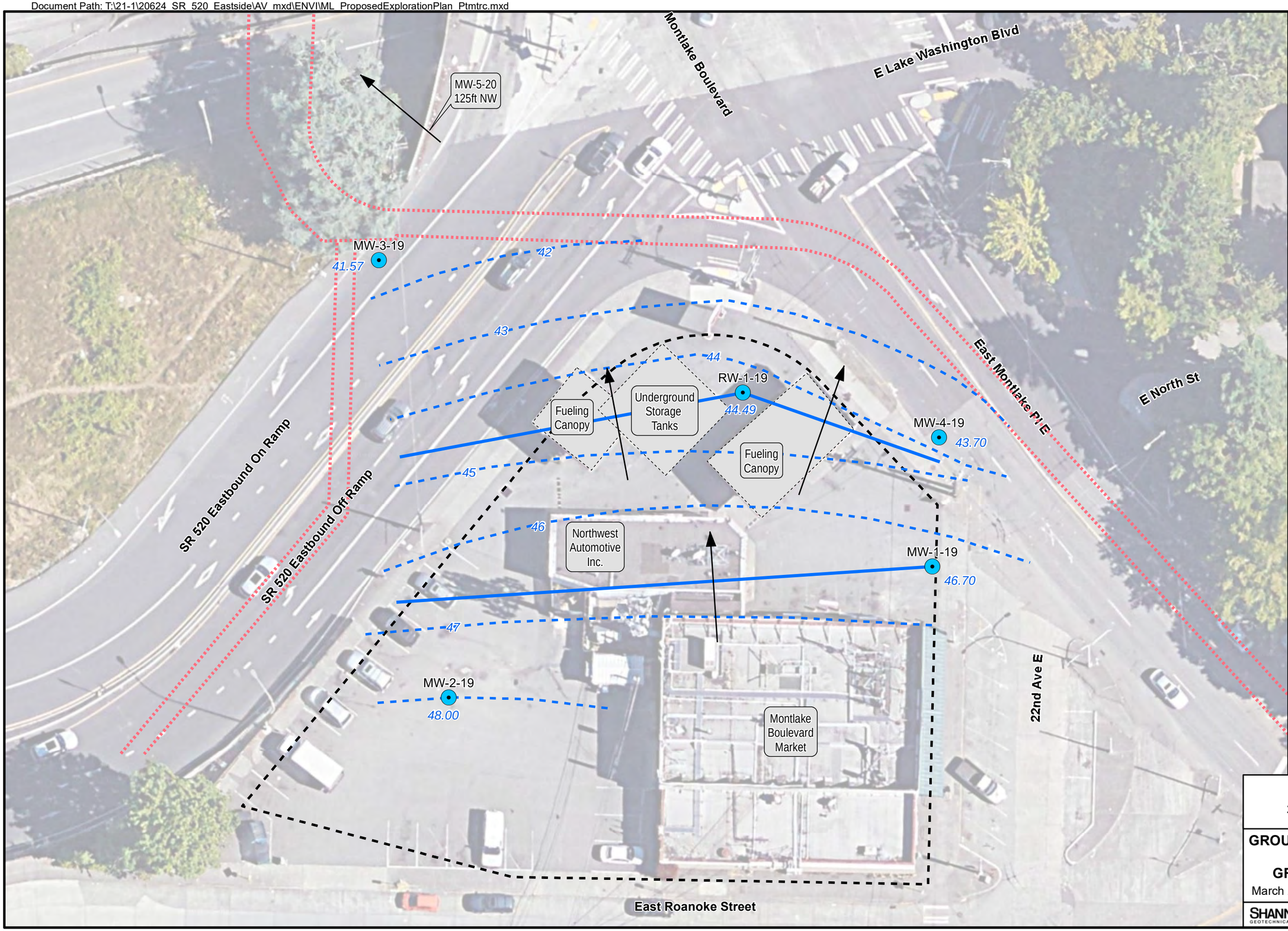

LEGEND

Groundwater Monitoring Well and Grounwater Elevation

43.70

Approximate Equipotential

45

Equipotential Calculated Using Three Wells

Estimated Groundwater Flow Direction

Existing Utility - Sewer Line

King County Parcel Boundary
Public Right of Way Limit

NOTES:

1. Groundwater elevation at MW-5-20 recorded three months after other wells (not contemporaneous) and therefore not included on map.
2. Elevation in NAVD 88.

N
W E
S

0 30
Feet

Montlake Gas Station VCP
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GROUNDWATER POTENTIOMETRIC SURFACE MAP WITH GROUNDWATER ELEVATION

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EXHIBIT 7

Sample Location	Screening	H-1-16	H-2-16	H-3-16	H-3-16	H-3-16	H-4-16	H-4-16	H-4-16	H-4-16	H-4-16	H-4-16	H-4-16	H-4-16	H-5-16	H-6-17	H-7-17	H-7-17	H-8-17	H-9-17	H-10-17	H-11-18	H-12-18	H-13-18	H-14-18
Sample Depth (feet bgs)	**Level ***	10	13.5	3	6	8.5	3	6	8.5	11	16	18.5	19.9	25.4	13.5	15	10	20	5	15	10	10	20	15	10
Total Petroleum Hydrocarbons																									
Gasoline Range Organics	**30 ****	-	-	-	-	-	5.5 U	6.8 U	7.7 U	6.9 U	**69**	**30**	**99**	6 U	-	-	-	-	-	-	-	6 U	15 U	7.7 U	12 U
Diesel Range Organics	**2000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30 U	27 U	28 U	35 U
Lube Oil	**2000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59 U	55 U	55 U	69 U
Mineral spirits	**4000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kerosene	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)																									
Benzene	**0.03**	0.0012 U	**0.0053**	**0.0055**	0.0011 U	**0.038**	0.02 U	**0.024**	**0.045**	**0.026**	0.051 U	**0.13**	**0.35**	**0.092**	0.083 U	0.0011 U	0.00094 U	**0.0096**	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
Toluene	**7**	0.0058 U	0.0054 U	0.0045 U	0.0057 U	0.0058 U	0.055 U	0.068 U	0.077 U	0.069 U	0.25 U	**0.074**	**0.09**	**0.064**	0.41 U	0.0054 U	0.0047 U	0.0053 U	-	0.0056 U	0.004 U	0.0045 U	0.0039 U	0.013 U	0.0091 U
Ethylbenzene	**6**	0.0012 U	0.0011 U	0.0009 U	0.0011 U	**0.005**	0.055 U	0.068 U	0.077 U	0.069 U	**0.55**	**0.76**	**1.4**	0.06 U	**0.089**	0.0011 U	0.00094 U	**0.0022**	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
m, p-Xylene	**16000**	0.0023 U	0.0022 U	0.0018 U	0.0023 U	**0.014**	0.055 U	0.068 U	0.077 U	0.069 U	**1.4**	**1.9**	**2.2**	**0.088**	0.17 U	0.0022 U	0.0019 U	**0.0024**	-	0.0022 U	0.0016 U	0.0018 U	0.0015 U	0.0051 U	0.0036 U
o-Xylene	**16000**	0.0012 U	0.0011 U	0.0009 U	0.0011 U	**0.0026**	0.055 U	0.068 U	0.077 U	0.069 U	**0.49**	**0.38**	**0.59**	0.06 U	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
Xylenes	**9**	0.0035 U	0.0033 U	0.0027 U	0.0033 U	**0.0166**	0.110 U	0.136 U	0.154 U	0.138 U	**1.89**	**2.28**	**2.79**	**0.088**	0.253 U	0.0033 U	0.00284 U	**0.0024**	-	0.0033 U	0.00241 U	0.0027 U	0.00227 U	0.0077 U	0.0054 U
Volatile Petroleum Hydrocarbons																									
Hexane	**4800**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
>C10-C12 Aliphatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
>C10-C12 Aromatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
>C12-C13 Aromatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
>C6-C8 Aliphatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
>C8-C10 Aliphatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
>C8-C10 Aromatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C5-C6 Aliphatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Aliphatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Aromatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Metals																									
Antimony	**-**	5.8 U	7.1 U	5.5 U	5.7 U	5.9 U	-	-	-	-	5.6 U	-	-	-	6.9 U	-	-	-	-	-	-	-	-	-	-
Arsenic	**20**	12 U	14 U	11 U	11 U	12 U	-	-	-	-	11 U	-	-	-	14 U	11 U	11 U	11 U	11 U	13 U	12 U	12 U	11 U	11 U	14 U
Barium	**16000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**47**	**59**	**42**	**69**	**63**	**35**	**46**	**73**	**58**	**110**
Beryllium	**160**	0.58 U	0.71 U	0.55 U	0.57 U	0.59 U	-	-	-	-	0.56 U	-	-	-	0.69 U	-	-	-	-	-	-	-	-	-	-
Cadmium	**2**	0.58 U	0.71 U	0.55 U	0.57 U	0.59 U	-	-	-	-	0.56 U	-	-	-	0.69 U	0.56 U	0.56 U	0.55 U	0.57 U	0.63 U	0.61 U	0.59 U	0.54 U	0.55 U	0.69 U
Chromium	**2000 †**	**36**	**37**	**28**	**27**	**29**	-	-	-	-	**28**	-	-	-	**64**	**33**	**37**	**35**	**35**	**37**	**27**	**48**	**140**	**43**	**68**
Chromium (TCLP) (mg/L)	**5.0 mg/L ¥**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	**3,200**	**8.4**	**24**	**13**	**11**	**8.6**	-	-	-	-	**11**	-	-	-	**46**	-	-	-	-	-	-	-	-	-	-
Lead	**250**	5.8 U	**11**	5.5 U	5.7 U	5.9 U	-	-	-	-	5.6 U	-	-	-	6.9 U	5.6 U	**6**	5.5 U	5.7 U	6.3 U	6.1 U	5.9 U	5.4 U	5.5 U	6.9 U
Mercury	**2**	0.29 U	0.36 U	0.28 U	0.29 U	0.29 U	-	-	-	-	0.28 U	-	-	-	0.35 U	0.28 U	0.28 U	0.27 U	0.29 U	0.31 U	0.31 U	0.3 U	0.27 U	0.28 U	0.34 U
Nickel	**1600**	**27**	**36**	**33**	**30**	**24**	-	-	-	-	**30**	-	-	-	**69**	-	-	-	-	-	-	-	-	-	-
Selenium	**400**	12 U	14 U	11 U	11 U	12 U	-	-	-	-	11 U	-	-	-	14 U	11 U	11 U	11 U	11 U	13 U	12 U	12 U	11 U	11 U	14 U
Silver	**400**	0.58 U	0.71 U	0.55 U	0.57 U	0.59 U	-	-	-	-	0.56 U	-	-	-	0.69 U	1.1 U	1.1 U	1.1 U	1.1 U	1.3 U	1.2 U	1.2 U	1.1 U	1.1 U	1.4 U
Thallium	**0.8**	1.4 U	1.8 U	1.4 U	1.4 U	1.5 U	-	-	-	-	1.4 U	-	-	-	1.7 U	-	-	-	-	-	-	-	-	-	-
Zinc	**24000**	**20**	**56**	**26**	**24**	**26**	-	-	-	-	**24**	-	-	-	**69**	-	-	-	-	-	-	-	-	-	-
Polychlorinated Biphenyls (PCBs)																									
PCB-aroclor 1016	**5.6**	0.058 U	0.071 U	-	-	0.055 U	-	-	-	-	0.056 U	-	-	-	0.069 U	0.056 U	0.056 U	0.055 U	0.057 U	0.063 U	0.061 U	0.059 U	0.054 U	0.055 U	0.069 U
PCB-aroclor 1221	**-**	0.058 U	0.071 U	-	-	0.055 U	-	-	-	-	0.056 U	-	-	-	0.069 U	0.056 U	0.056 U	0.055 U	0.057 U	0.063 U	0.061 U	0.059 U	0.054 U	0.055 U	0.069 U
PCB-aroclor 1232	**-**	0.058 U	0.071 U	-	-	0.055 U	-	-	-	-	0.056 U	-	-	-	0.069 U	0.056 U	0.056 U	0.055 U	0.057 U	0.063 U	0.061 U	0.059 U	0.054 U	0.055 U	0.069 U
PCB-aroclor 1242	**-**	0.058 U	0.071 U	-	-	0.055 U	-	-	-	-	0.056 U	-	-	-	0.069 U	0.056 U	0.056 U	0.055 U	0.057 U	0.063 U	0.061 U	0.059 U	0.054 U	0.055 U	0.069 U
PCB-aroclor 1248	**-**	0.058 U	0.071 U	-	-	0.055 U	-	-	-	-	0.056 U	-	-	-	0.069 U	0.056 U	0.056 U	0.055 U	0.057 U	0.063 U	0.061 U	0.059 U	0.054 U	0.055 U	0.069 U
PCB-aroclor 1254	**0.5**	0.058 U	0.071 U	-	-	0.055 U	-	-	-	-	0.056 U	-	-	-	0.069 U	0.056 U	0.056 U	0.055 U	0.057 U	0.063 U	0.061 U	0.059 U	0.054 U	0.055 U	0.069 U
PCB-aroclor 1260	**0.5**	0.058 U	0.071 U	-	-	0.055 U	-	-	-	-	0.056 U	-	-	-	0.069 U	0.056 U	0.056 U	0.055 U	0.057 U	0.063 U	0.061 U	0.059 U	0.054 U	0.055 U	0.069 U
Volatile Organic Compounds (VOCs)																									
1,1,1,2-Tetrachloroethane	**38**	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
1,1,1-Trichloroethane	**2**	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
1,1,2,2-Tetrachloroethane	**5**	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.06 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
1,1,2-Trichloroethane	**18**	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
1,1-Dichloroethane	**180**	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
1,1-Dichloroethene	**-**	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
1,1-Dichloropropene	**-**	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
1,2,3-Trichlorobenzene	**-**	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.06 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
1,2,3-Trichloropropane	**0.033**	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.06 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
1,2,4-Trichlorobenzene	**34**	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.06 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U

Sample Location	Screening Level *	H-1-16	H-2-16	H-3-16	H-3-16	H-3-16	H-4-16	H-4-16	H-4-16	H-4-16	H-4-16	H-4-16	H-4-16	H-4-16	H-5-16	H-6-17	H-7-17	H-7-17	H-8-17	H-9-17	H-10-17	H-11-18	H-12-18	H-13-18	H-14-18
Sample Depth (feet bgs)		10	13.5	3	6	8.5	3	6	8.5	11	16	18.5	19.9	25.4	13.5	15	10	20	5	15	10	10	20	15	10
1,2,4-Trimethylbenzene	800	0.0012 U	0.0011 U	0.0009 U	0.0011 U	**0.0018**	-	-	-	-	**1.8**	-	-	-	0.083 U	0.06 U	0.00094 U	**0.0015**	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
1,2-Dibromo-3-Chloropropane	1.3	0.0058 U	0.0054 U	0.0045 U	0.0057 U	0.0058 U	-	-	-	-	0.25 U	-	-	-	0.41 U	0.3 U	0.0047 U	0.0053 U	-	0.0056 U	0.004 U	0.0045 U	0.0039 U	0.013 U	0.0091 U
1,2-Dichlorobenzene	7200	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.06 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
1,2-Dichloroethane (EDC)	11	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
1,2-Dichloropropane	27	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
1,3,5-Trimethylbenzene	800	0.0012 U	0.0011 U	0.0009 U	0.0011 U	**0.0015**	-	-	-	-	**0.56**	-	-	-	**0.15**	0.06 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
1,3-Dichlorobenzene	-	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.06 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
1,3-Dichloropropane	-	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
1,4-Dichlorobenzene	190	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.06 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
2,2-Dichloropropane	-	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
2-Butanone	-	0.0058 U	**0.021**	0.0045 U	0.0057 U	0.0058 U	-	-	-	-	0.25 U	-	-	-	0.41 U	0.011 U	0.0094 U	**0.014**	-	0.011 U	0.0081 U	0.009 U	0.0077 U	0.026 U	0.018 U
2-Chloroethylvinylether	-	0.0058 U	0.0054 U	0.0045 U	0.0057 U	0.0058 U	-	-	-	-	0.25 U	-	-	-	0.41 U	0.0076 U	0.0047 U	0.0053 U	-	0.0056 U	0.004 U	0.0045 U	0.0039 U	0.013 U	0.0091 U
2-Chlorotoluene	1600	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.06 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
2-Hexanone	400	0.0058 U	0.0054 U	0.0045 U	0.0057 U	0.0058 U	-	-	-	-	0.25 U	-	-	-	0.41 U	0.0054 U	0.0047 U	0.0053 U	-	0.0056 U	0.004 U	0.0045 U	0.0039 U	0.013 U	0.0091 U
4-Chlorotoluene	-	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.06 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
Acetone	72000	0.0083 U	**0.06**	0.0045 U	0.023	0.0058 U	-	-	-	-	0.25 U	-	-	-	0.41 U	0.054 U	0.047 U	**0.078**	-	0.056 U	0.04 U	0.045 U	0.039 U	0.13 U	0.091 U
Bromobenzene	640	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.06 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
Bromochloromethane	-	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
Bromodichloromethane	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	130	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0054 U	0.0047 U	0.0053 U	-	0.0056 U	0.004 U	0.0045 U	0.0039 U	0.013 U	0.0091 U
Bromomethane	110	0.0015 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.0047 U	0.0053 U	-	0.0071 U	0.0052 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
Carbon Disulfide	8000	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	**0.0026**	0.00094 U	**0.0054**	-	0.0011 U	0.00081 U	0.0009 U	**0.0015**	0.0026 U	0.0018 U
Carbon Tetrachloride	14	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
CFC-11	-	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
CFC-12	-	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0014 U	0.00094 U	0.0011 U	-	0.0014 U	0.001 U	0.0009 U	0.0013 U	0.0026 U	0.0018 U
Chlorobenzene	1600	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
Chloroethane	-	0.0097 U	0.0054 U	0.0045 U	0.0057 U	0.0058 U	-	-	-	-	0.25 U	-	-	-	0.41 U	0.0054 U	0.0047 U	0.0053 U	-	0.0056 U	0.004 U	0.0045 U	0.0039 U	0.013 U	0.0091 U
Chloroform	32	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
Chloromethane	-	0.0095 U	0.0054 U	0.0045 U	0.0057 U	0.0058 U	-	-	-	-	0.25 U	-	-	-	0.41 U	0.0054 U	0.0047 U	0.0053 U	-	0.0056 U	0.004 U	0.0045 U	**0.0058**	0.013 U	0.0091 U
cis-1,2-Dichloroethene	-	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
cis-1,3-Dichloropropene	10	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
Dibromochloromethane	12	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
Dibromomethane	-	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
Dichlorobromomethane	-	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
Dichlorodifluoromethane	16000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylene dibromide	0.005	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
Hexachloro-1,3-butadiene	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	-	0.0058 U	0.0054 U	0.0045 U	0.0057 U	0.0058 U	-	-	-	-	0.25 U	-	-	-	0.41 U	0.3 U	0.0047 U	0.0053 U	-	0.0056 U	0.004 U	0.0045 U	0.0039 U	0.013 U	0.0091 U
Isopropylbenzene	-	0.0012 U	0.0011 U	0.0009 U	0.0011 U	**0.0018**	-	-	-	-	**0.092**	-	-	-	**0.19**	0.0011 U	0.00094 U	**0.0012**	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
Isopropyltoluene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Iodide	-	0.0058 U	0.0054 U	0.0045 U	0.0057 U	0.0058 U	-	-	-	-	0.25 U	-	-	-	0.41 U	0.0054 U	0.0047 U	0.0053 U	-	0.0056 U	0.004 U	0.0045 U	0.0039 U	0.013 U	0.0091 U
Methyl Isobutyl Ketone	6400	0.0058 U	0.0054 U	0.0045 U	0.0057 U	0.0058 U	-	-	-	-	0.25 U	-	-	-	0.41 U	0.0054 U	0.0047 U	0.0053 U	-	0.0056 U	0.004 U	0.0045 U	0.0039 U	0.013 U	0.0091 U
Methyl t-Butyl Ether	0.1	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
Methylene chloride	0.02	0.0058 U	0.0054 U	0.0045 U	**0.053**	**0.022**	-	-	-	-	0.25 U	-	-	-	0.41 U	0.0054 U	0.0047 U	0.0053 U	-	0.0056 U	0.004 U	0.0045 U	0.0039 U	0.013 U	0.0091 U
MTBE	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	5	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	**0.64**	-	-	-	0.083 U	0.06 U	0.00094 U	**0.0027**	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
n-Butylbenzene	4000	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	**0.29**	-	-	-	2	0.06 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
n-Propylbenzene	8000	0.0012 U	0.0011 U	0.0009 U	0.0011 U	**0.0032**	-	-	-	-	**0.36**	-	-	-	1.2	0.06 U	0.00094 U	0.0035	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
p-Isopropyltoluene	-	0.0012 U	0.0011 U	0.0009 U	0.0011 U	**0.002**	-	-	-	-	**0.053**	-	-	-	**0.32**	0.06 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
sec-Butylbenzene	8000	0.0012 U	0.0011 U	0.0009 U	0.0011 U	**0.0013**	-	-	-	-	**0.064**	-	-	-	**0.51**	0.06 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
Styrene	16000	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
tert-Butylbenzene	8000	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.06 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
Tetrachloroethene	-	0.0012 U	0.0022 U	0.0018 U	0.0023 U	0.0023 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0018 U	0.00077 U	0.0051 U	0.0036 U
trans-1,2-Dichloroethene	-	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
trans-1,3-Dichloropropene	10	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
Trichloroethene	-	0.0012 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U
Trichlorofluoromethane	24000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl Acetate	80000	0.0058 U	0.0054 U	0.0045 U	0.0057 U	0.0058 U	-	-	-	-	0.25 U	-	-	-	0.41 U	0.0054 U	0.0047 U	0.0053 U	-	0.0056 U	0.004 U	0.0045 U	0.0039 U	0.013 U	0.0091 U
Vinyl chloride	0.67	0.0019 U	0.0011 U	0.0009 U	0.0011 U	0.0012 U	-	-	-	-	0.051 U	-	-	-	0.083 U	0.0011 U	0.00094 U	0.0011 U	-	0.0011 U	0.00081 U	0.0009 U	0.00077 U	0.0026 U	0.0018 U

Sample Location	Screening Level *	H-1-16	H-2-16	H-3-16	H-3-16	H-3-16	H-4-16	H-4-16	H-4-16	H-4-16	H-4-16	H-4-16	H-4-16	H-4-16	H-5-16	H-6-17	H-7-17	H-7-17	H-8-17	H-9-17	H-10-17	H-11-18	H-12-18	H-13-18	H-14-18
Sample Depth (feet bgs)		10	13.5	3	6	8.5	3	6	8.5	11	16	18.5	19.9	25.4	13.5	15	10	20	5	15	10	10	20	15	10
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)																									
Benz[a]anthracene	-	0.0077 U	0.0095 U	0.0073 U	0.0076 U	0.0078 U	-	-	-	-	0.0075 U	-	-	-	0.0092 U	0.0074 U	**0.017**	0.0073 U	0.0077 U	0.0083 U	0.0082 U	0.0079 U	0.0073 U	0.0074 U	0.0092 U
Benzo(a)pyrene	**0.1**	0.0077 U	0.0095 U	0.0073 U	0.0076 U	0.0078 U	-	-	-	-	0.0075 U	-	-	-	0.0092 U	0.0074 U	**0.02**	0.0073 U	0.0077 U	0.0083 U	0.0082 U	0.0079 U	0.0073 U	0.0074 U	0.0092 U
Benzo(b)fluoranthene	-	0.0077 U	0.0095 U	0.0073 U	0.0076 U	0.0078 U	-	-	-	-	0.0075 U	-	-	-	0.0092 U	0.0074 U	**0.02**	0.0073 U	0.0077 U	0.0083 U	0.0082 U	0.0079 U	0.0073 U	0.0074 U	0.0092 U
Benzo(j,k)fluoranthene	-	0.0077 U	0.0095 U	0.0073 U	0.0076 U	0.0078 U	-	-	-	-	0.0075 U	-	-	-	0.0092 U	0.0074 U	0.0075 U	0.0073 U	0.0077 U	0.0083 U	0.0082 U	0.0079 U	0.0073 U	0.0074 U	0.0092 U
Benzo(k)fluoranthene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	-	0.0077 U	0.0095 U	0.0073 U	0.0076 U	0.0078 U	-	-	-	-	0.0075 U	-	-	-	0.0092 U	0.0074 U	**0.019**	0.0073 U	0.0077 U	0.0083 U	0.0082 U	0.0079 U	0.0073 U	0.0074 U	0.0092 U
Dibenzo(a,h)anthracene	-	0.0077 U	0.0095 U	0.0073 U	0.0076 U	0.0078 U	-	-	-	-	0.0075 U	-	-	-	0.0092 U	0.0074 U	0.0075 U	0.0073 U	0.0077 U	0.0083 U	0.0082 U	0.0079 U	0.0073 U	0.0074 U	0.0092 U
Indeno(1,2,3-cd)pyrene	-	0.0077 U	0.0095 U	0.0073 U	0.0076 U	0.0078 U	-	-	-	-	0.0075 U	-	-	-	0.0092 U	0.0074 U	**0.013**	0.0073 U	0.0077 U	0.0083 U	0.0082 U	0.0079 U	0.0073 U	0.0074 U	0.0092 U
Total cPAH TEQ ¥	**0.1**	0.0058 U	0.0072 U	0.0055 U	0.0057 U	0.0059 U	-	-	-	-	0.0057 U	-	-	-	0.0069 U	0.0056 U	**0.02324**	0.0055 U	0.0058 U	0.0063 U	0.0062 U	0.006 U	0.0055 U	0.0056 U	0.0069 U
Semi-Volatile Organic Compounds (SVOCs)																									
1,2-Dinitrobenzene	**8**	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
1,2-Diphenylhydrazine	**3.3**	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.059 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
1,3-Dinitrobenzene	**8**	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
1-MethylNaphthalene	**34**	0.0077 U	0.0095 U	0.0073 U	0.0076 U	**0.013**	-	-	-	-	**0.37**	-	-	-	**0.037**	0.0074 U	0.0075 U	0.0073 U	0.0077 U	0.0083 U	0.0082 U	0.0079 U	0.0073 U	0.0074 U	0.0092 U
2,3,4,6-Tetrachlorophenol	**2400**	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
2,3,5,6-Tetrachlorophenol	-	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
2,3-Dichloroaniline	-	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
2,4,5-Trichlorophenol	**8000**	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
2,4,6-Tribromophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	**80**	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
2,4-Dichlorophenol	**240**	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
2,4-Dimethylphenol	**1600**	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
2,4-Dinitrophenol	**160**	0.19 U	0.24 U	0.18 U	0.19 U	0.2 U	-	-	-	-	0.19 U	-	-	-	0.23 U	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U	0.2 U	0.2 U	0.18 U	0.18 U	0.23 U
2,4-Dinitrotoluene	**3.2**	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
2,6-Dinitrotoluene	**0.67**	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
2-Chloronaphthalene	-	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
2-Chlorophenol	**400**	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
2-MethylNaphthalene	**320**	0.0077 U	0.0095 U	0.0073 U	0.0076 U	0.018	-	-	-	-	**0.74**	-	-	-	**0.35**	0.0074 U	0.0075 U	0.0073 U	0.0077 U	0.0083 U	0.0082 U	0.0079 U	0.013 U	0.0074 U	0.0092 U
2-Nitroaniline	-	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
2-Nitrophenol	-	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
3,3'-Dichlorobenzidine	**2.2**	0.19 U	0.24 U	0.18 U	0.19 U	0.2 U	-	-	-	-	0.19 U	-	-	-	0.23 U	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U	0.2 U	0.2 U	0.18 U	0.18 U	0.23 U
3-Methylphenol and 4-Methylphenol coelution	-	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
3-Nitroaniline	-	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
4,6-Dinitro-2-methylphenol	-	0.19 U	0.24 U	0.18 U	0.19 U	0.2 U	-	-	-	-	0.19 U	-	-	-	0.23 U	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U	0.2 U	0.2 U	0.18 U	0.18 U	0.23 U
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	-	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
4-Chloroaniline	-	0.19 U	0.24 U	0.18 U	0.19 U	0.2 U	-	-	-	-	0.19 U	-	-	-	0.23 U	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U	0.2 U	0.2 U	0.18 U	0.18 U	0.23 U
4-Chlorophenyl Phenyl Ether	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl-Phenylether	-	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
4-Nitroaniline	-	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
4-Nitrophenol	-	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.054 U	0.037 U	0.046 U
Acenaphthene	**4800**	0.0077 U	0.0095 U	0.0073 U	0.0076 U	0.0078 U	-	-	-	-	0.0075 U	-	-	-	0.0092 U	0.0074 U	0.0075 U	0.0073 U	0.0077 U	0.0083 U	0.0082 U	0.0079 U	0.013 U	0.0074 U	0.0092 U
Acenaphthylene	-	0.0077 U	0.0095 U	0.0073 U	0.0076 U	0.0078 U	-	-	-	-	0.0075 U	-	-	-	0.0092 U	0.0074 U	0.0075 U	0.0073 U	0.0077 U	0.0083 U	0.0082 U	0.0079 U	0.0073 U	0.0074 U	0.0092 U
Aniline	**180**	0.19 U	0.24 U	0.18 U	0.19 U	0.2 U	-	-	-	-	0.19 U	-	-	-	0.23 U	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U	0.2 U	0.2 U	0.18 U	0.18 U	0.23 U
Anthracene	**24000**	0.0077 U	0.0095 U	0.0073 U	0.0076 U	0.0078 U	-	-	-	-	0.0075 U	-	-	-	0.0092 U	0.0074 U	0.0075 U	0.0073 U	0.0077 U	0.0083 U	0.0082 U	**0.008**	0.0073 U	0.0074 U	0.0092 U
Benzene, 1,4-Dinitro-	**8**	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
Benzidine	**0.0043**	0.39 U	0.48 U	0.37 U	0.38 U	0.39 U	-	-	-	-	0.37 U	-	-	-	0.46 U	0.37 U	0.38 U	0.36 U	0.38 U	0.42 U	0.41 U	0.4 U	0.36 U	0.37 U	0.46 U
Benzo(ghi)perylene	-	0.0077 U	0.0095 U	0.0073 U	0.0076 U	0.0078 U	-	-	-	-	0.0075 U	-	-	-	0.0092 U	0.0074 U	**0.014**	0.0073 U	0.0077 U	0.0083 U	0.0082 U	0.0079 U	0.0073 U	0.0074 U	0.0092 U
Benzyl alcohol	**8000**	0.19 U	0.24 U	0.18 U	0.19 U	0.2 U	-	-	-	-	0.19 U	-	-	-	0.23 U	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U	0.2 U	0.2 U	0.18 U	0.18 U	0.23 U
Bis(2-Chloroethoxy)Methane	-	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
bis(2-Chloroethyl)ether	**0.91**	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
bis(2-Chloroisopropyl)ether	-	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
Bis(2-ethylhexyl) ether	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	**71**	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U	0.2 U	0.2 U	0.18 U	0.18 U	0.23 U
Butyl benzyl phthalate	**530**	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U	0.2 U	0.2 U	0.18 U	0.18 U	0.23 U
Carbazole	-	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
Di(2-ethylhexyl) adipate	**830**	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U	0.2 U	0.2 U	0.18 U	0.18 U	0.23 U

Sample Location	Screening Level *	H-1-16	H-2-16	H-3-16	H-3-16	H-3-16	H-4-16	H-4-16	H-4-16	H-4-16	H-4-16	H-4-16	H-4-16	H-4-16	H-5-16	H-6-17	H-7-17	H-7-17	H-8-17	H-9-17	H-10-17	H-11-18	H-12-18	H-13-18	H-14-18
Sample Depth (feet bgs)		10	13.5	3	6	8.5	3	6	8.5	11	16	18.5	19.9	25.4	13.5	15	10	20	5	15	10	10	20	15	10
Dibenzofuran	80	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
Diethyl phthalate	64000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethylphthalate	64000	0.19 U	0.24 U	0.18 U	0.19 U	0.2 U	-	-	-	-	0.19 U	-	-	-	0.23 U	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U	0.2 U	0.2 U	0.18 U	0.18 U	0.23 U
Dimethylphthalate	-	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
Di-n-butylphthalate	-	0.19 U	0.24 U	0.18 U	0.19 U	0.2 U	-	-	-	-	0.19 U	-	-	-	0.23 U	0.19 U	0.19 U	0.18 U	0.19 U	0.42 U	0.41 U	0.2 U	0.18 U	0.18 U	0.23 U
Di-n-octylphthalate	-	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U	0.2 U	0.2 U	0.18 U	0.18 U	0.23 U
Fluoranthene	3200	0.0077 U	0.0095 U	0.0073 U	0.0076 U	0.0078 U	-	-	-	-	0.0075 U	-	-	-	0.0092 U	0.0074 U	0.027	0.0073 U	0.0077 U	0.0083 U	0.0082 U	**0.0096**	0.0073 U	0.0074 U	0.0092 U
Fluorene	3200	0.0077 U	0.0095 U	0.0073 U	0.0076 U	0.0078 U	-	-	-	-	0.0075 U	-	-	-	0.0092 U	0.0074 U	0.0075 U	0.0073 U	0.0077 U	0.0083 U	0.0082 U	0.0079 U	0.0073 U	0.0074 U	0.0092 U
Hexachlorobenzene	0.63	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
Hexachlorocyclopentadiene	480	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
Hexachloroethane	25	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
Isophorone	1100	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
Nitrobenzene	160	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
n-Nitrosodimethylamine	0.02	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
N-Nitrosodi-n-propylamine	-	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
N-Nitrosodiphenylamine	200	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
o-Cresol	4000	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
PBDE-003	-	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
Pentachlorophenol	2.5	0.19 U	0.24 U	0.18 U	0.19 U	0.2 U	-	-	-	-	0.19 U	-	-	-	0.23 U	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U	0.2 U	0.2 U	0.18 U	0.18 U	0.23 U
Phenanthrene	-	0.0077 U	0.0095 U	0.0073 U	0.0076 U	0.0078 U	-	-	-	-	0.0075 U	-	-	-	0.0092 U	0.0074 U	**0.019**	0.0073 U	0.0077 U	0.0083 U	0.0082 U	0.013	0.0073 U	0.0074 U	0.0092 U
Phenol	24000	0.039 U	0.048 U	0.037 U	0.038 U	0.039 U	-	-	-	-	0.037 U	-	-	-	0.046 U	0.037 U	0.038 U	0.036 U	0.038 U	0.042 U	0.041 U	0.04 U	0.036 U	0.037 U	0.046 U
Pyrene	2400	0.0077 U	0.0095 U	0.0073 U	0.0076 U	0.0078 U	-	-	-	-	0.0075 U	-	-	-	0.0092 U	0.0074 U	**0.041**	0.0073 U	0.0077 U	0.0083 U	0.0082 U	**0.013**	0.013 U	0.0074 U	0.0092 U
Pyridine	80	0.39 U	0.48 U	0.37 U	0.38 U	0.39 U	-	-	-	-	0.37 U	-	-	-	0.46 U	0.37 U	0.38 U	0.36 U	0.38 U	0.42 U	0.41 U	0.4 U	0.36 U	0.37 U	0.46 U

Sample Location	Screening Level *	H-15-18	H-15-18	H-16-18	H-16-18	H-16-18	H-16-18	H-16-18	H-16-18	H-16-18	H-16-18	H-17-18	H-17-18	H-17-18	H-18-18	H-18-18	H-19-18	H-19-18	H-19-18	H-19-18
Sample Depth (feet bgs)		15	25	5-6.5	10-11.5	10-11.5 ‡	15-16.5	15-16.5 ‡	20	25-26.5	25-26.5 ‡	10-11.5	10-11.5 ‡	20-21.5	24.5	25-26.5	5-6.5	15-16.5	15-16.5 ‡	19.5
Total Petroleum Hydrocarbons																				
Gasoline Range Organics	**30 ****	7.5 U	6.5 U	**11**	**900**	**15**	**58**	**130**	**1600**	**41**	**17**	**180**	**44**	**9.3**	5 U	5.2 U	**3100**	**5600**	**23**	**6.8**
Diesel Range Organics	**2000**	29 U	28 U	20 U	20 U	96 U	20 U	140 U	20 U	20 U	28 U	30 U	20 U	20 U	-	29 U	1500 U	1100 U	20 U	20 U
Lube Oil	**2000**	58 U	56 U	50 U	50 U	64 U	50 U	61 U	50 U	50 U	56 U	59 U	50 U	50 U	-	**59**	**6000**	82	50 U	50 U
Mineral spirits	**4000**	-	-	5 U	5 U	-	5 U	-	5 U	5 U	-	-	5 U	5 U	5 U	-	-	-	5 U	5 U
Kerosene	**-**	-	-	20 U	20 U	-	20 U	-	20 U	20 U	-	-	20 U	20 U	-	-	-	-	20 U	20 U
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)																				
Benzene	**0.03**	0.0011 U	0.0012 U	**150**	**5**	**1.4**	**0.98**	**0.5**	**1.2**	**96**	**0.17**	**0.098**	**0.094**	**0.33**	20 U	0.00087 U	**0.27**	**1.3**	0.02 U	0.02 U
Toluene	**7**	0.0057 U	0.0058 U	50 U	0.48	0.35 U	0.081	0.26 U	0.53	50 U	0.24 U	0.24 U	0.05 U	0.05 U	50 U	0.0044 U	0.59 U	**7.3**	0.05 U	0.05 U
Ethylbenzene	**6**	0.0011 U	0.0012 U	50 U	**34**	**1.8**	**2.8**	**2.6**	**15**	**490**	**0.91**	**0.33**	**0.65**	**0.17**	50 U	0.00087 U	**2.7**	**17**	**0.19**	**0.068**
m, p-Xylene	**16000**	0.0023 U	0.0023 U	-	-	0.14 U	-	**3.1**	-	-	**1.9**	0.096 U	-	-	-	0.0017 U	**18**	**65**	-	-
o-Xylene	**16000**	0.0011 U	0.0012 U	-	-	0.07 U	-	**0.5**	-	-	**0.44**	0.048 U	-	-	-	0.00087 U	**5.8**	**15**	-	-
Xylenes	**9**	0.0034 U	0.0035 U	50 U	**1.8**	0.21 U	**2**	**3.6**	**51**	**820**	**2.34**	0.144 U	**2.2**	**0.36**	50 U	0.00257 U	**23.8**	**80**	**0.78**	**0.21**
Volatile Petroleum Hydrocarbons																				
Hexane	**4800**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
>C10-C12 Aliphatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
>C10-C12 Aromatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
>C12-C13 Aromatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
>C6-C8 Aliphatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
>C8-C10 Aliphatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
>C8-C10 Aromatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C5-C6 Aliphatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Aliphatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Aromatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Metals																				
Antimony	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	**20**	11 U	11 U	-	-	13 U	-	12 U	-	-	11 U	13 U	-	-	-	12 U	11 U	12 U	-	-
Barium	**16000**	**50**	**35**	-	-	**200**	-	**92**	-	-	**48**	**110**	-	-	-	**56**	**100**	**76**	-	-
Beryllium	**160**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	**2**	0.57 U	0.55 U	-	-	0.64 U	-	0.61 U	-	-	0.56 U	0.67 U	-	-	-	0.58 U	0.55 U	0.59 U	-	-
Chromium	**2000 †**	**37**	**25**	-	-	**81**	-	**63**	-	-	**35**	**66**	-	-	-	**120**	**35**	**53**	-	-
Chromium (TCLP) (mg/L)	**5.0 mg/L ¥**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.087**	-	-	-	-
Copper	**3,200**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	**250**	5.7 U	5.5 U	-	-	8.5	-	6.1 U	-	-	5.6 U	6.7 U	-	-	-	5.8 U	13	8.2	-	-
Mercury	**2**	0.29 U	0.28 U	-	-	0.32 U	-	0.3 U	-	-	0.28 U	0.34 U	-	-	-	0.29 U	0.28 U	0.3 U	-	-
Nickel	**1600**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	**400**	11 U	11 U	-	-	13 U	-	12 U	-	-	11 U	13 U	-	-	-	12 U	11 U	12 U	-	-
Silver	**400**	1.1 U	1.1 U	-	-	1.3 U	-	1.2 U	-	-	1.1 U	1.3 U	-	-	-	1.2 U	1.1 U	1.2 U	-	-
Thallium	**0.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	**24000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polychlorinated Biphenyls (PCBs)																				
PCB-aroclor 1016	**5.6**	0.057 U	0.055 U	-	-	0.064 U	-	0.061 U	-	-	0.056 U	0.059 U	-	-	-	0.058 U	0.055 U	0.059 U	-	-
PCB-aroclor 1221	**-**	0.057 U	0.055 U	-	-	0.064 U	-	0.061 U	-	-	0.056 U	0.059 U	-	-	-	0.058 U	0.055 U	0.059 U	-	-
PCB-aroclor 1232	**-**	0.057 U	0.055 U	-	-	0.064 U	-	0.061 U	-	-	0.056 U	0.059 U	-	-	-	0.058 U	0.055 U	0.059 U	-	-
PCB-aroclor 1242	**-**	0.057 U	0.055 U	-	-	0.064 U	-	0.061 U	-	-	0.056 U	0.059 U	-	-	-	0.058 U	0.055 U	0.059 U	-	-
PCB-aroclor 1248	**-**	0.057 U	0.055 U	-	-	0.064 U	-	0.061 U	-	-	0.056 U	0.059 U	-	-	-	0.058 U	0.055 U	0.059 U	-	-
PCB-aroclor 1254	**0.5**	0.057 U	0.055 U	-	-	0.064 U	-	0.061 U	-	-	0.056 U	0.059 U	-	-	-	0.058 U	0.055 U	0.059 U	-	-
PCB-aroclor 1260	**0.5**	0.057 U	0.055 U	-	-	0.064 U	-	0.061 U	-	-	0.056 U	0.059 U	-	-	-	0.058 U	0.055 U	0.059 U	-	-
Volatile Organic Compounds (VOCs)																				
1,1,1,2-Tetrachloroethane	**38**	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
1,1,1-Trichloroethane	**2**	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
1,1,2,2-Tetrachloroethane	**5**	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
1,1,2-Trichloroethane	**18**	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
1,1-Dichloroethane	**180**	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
1,1-Dichloroethene	**-**	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
1,1-Dichloropropene	**-**	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
1,2,3-Trichlorobenzene	**-**	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
1,2,3-Trichloropropane	**0.033**	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
1,2,4-Trichlorobenzene	**34**	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U

Sample Location	Screening Level *	H-15-18	H-15-18	H-16-18	H-16-18	H-16-18	H-16-18	H-16-18	H-16-18	H-16-18	H-16-18	H-17-18	H-17-18	H-17-18	H-18-18	H-18-18	H-19-18	H-19-18	H-19-18	H-19-18
Sample Depth (feet bgs)		15	25	5-6.5	10-11.5	10-11.5 ‡	15-16.5	15-16.5 ‡	20	25-26.5	25-26.5 ‡	10-11.5	10-11.5 ‡	20-21.5	24.5	25-26.5	5-6.5	15-16.5	15-16.5 ‡	19.5
1,2,4-Trimethylbenzene	800	0.0011 U	0.0012 U	-	2.3	0.07 U	2.1	4.7	31	-	2	0.048 U	1.6	0.46	-	0.00087 U	21	61	0.86	0.19
1,2-Dibromo-3-Chloropropane	1.3	0.0057 U	0.0058 U	-	0.05 U	0.35 U	0.05 U	0.26 U	0.05 U	-	0.24 U	0.24 U	0.05 U	0.05 U	-	0.0044 U	0.59 U	0.26 U	0.05 U	0.05 U
1,2-Dichlorobenzene	7200	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
1,2-Dichloroethane (EDC)	11	0.0011 U	0.0012 U	-	0.02 U	0.07 U	0.02 U	0.053 U	0.02 U	-	0.049 U	0.048 U	0.02 U	0.02 U	-	0.00087 U	0.12 U	0.052 U	0.02 U	0.02 U
1,2-Dichloropropane	27	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
1,3,5-Trimethylbenzene	800	0.0011 U	0.0012 U	-	2	0.07 U	0.48	1.2	11	-	0.62	0.11	0.43	0.13	-	0.00087 U	6.1	19	0.26	0.17
1,3-Dichlorobenzene	-	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
1,3-Dichloropropane	-	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
1,4-Dichlorobenzene	190	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
2,2-Dichloropropane	-	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
2-Butanone	-	0.011 U	0.012 U	-	-	0.35 U	-	0.26 U	-	-	0.24 U	0.24 U	-	-	-	0.0044 U	0.59 U	0.26 U	-	-
2-Chloroethylvinylether	-	0.0057 U	0.0058 U	-	-	0.35 U	-	0.26 U	-	-	0.24 U	0.24 U	-	-	-	0.0044 U	0.59 U	0.26 U	-	-
2-Chlorotoluene	1600	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
2-Hexanone	400	0.0057 U	0.0058 U	-	-	0.35 U	-	0.26 U	-	-	0.24 U	0.24 U	-	-	-	0.0044 U	0.59 U	0.26 U	-	-
4-Chlorotoluene	-	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.052	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
Acetone	72000	0.057 U	0.058 U	-	-	0.7 U	-	0.53 U	-	-	0.49 U	0.48 U	-	-	-	0.024	1.2 U	0.52 U	-	-
Bromobenzene	640	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
Bromochloromethane	-	0.0011 U	0.0012 U	-	-	0.07 U	-	0.053 U	-	-	0.049 U	0.048 U	-	-	-	0.00087 U	0.12 U	0.052 U	-	-
Bromodichloromethane	16	-	-	-	0.05 U	-	0.05 U	-	0.05 U	-	-	-	0.05 U	0.05 U	-	-	-	-	0.05 U	0.05 U
Bromoform	130	0.0057 U	0.0058 U	-	0.05 U	0.35 U	0.05 U	0.26 U	0.05 U	-	0.24 U	0.24 U	0.05 U	0.05 U	-	0.0044 U	0.59 U	0.26 U	0.05 U	0.05 U
Bromomethane	110	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
Carbon Disulfide	8000	0.0011 U	0.0012 U	-	-	0.07 U	-	0.053 U	-	-	0.049 U	0.048 U	-	-	-	0.002	0.12 U	0.052 U	-	-
Carbon Tetrachloride	14	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
CFC-11	-	0.0011 U	0.0012 U	-	-	0.07 U	-	0.053 U	-	-	0.049 U	0.048 U	-	-	-	0.00087 U	0.12 U	0.052 U	-	-
CFC-12	-	0.0011 U	0.0012 U	-	-	0.07 U	-	0.053 U	-	-	0.049 U	0.048 U	-	-	-	0.00087 U	0.12 U	0.052 U	-	-
Chlorobenzene	1600	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
Chloroethane	-	0.0057 U	0.0058 U	-	0.05 U	0.35 U	0.05 U	0.26 U	0.05 U	-	0.24 U	0.24 U	0.05 U	0.05 U	-	0.0044 U	0.59 U	0.26 U	0.05 U	0.05 U
Chloroform	32	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
Chloromethane	-	0.0057 U	0.0058 U	-	0.05 U	0.35 U	0.05 U	0.26 U	0.05 U	-	0.24 U	0.24 U	0.05 U	0.05 U	-	0.0044 U	0.59 U	0.26 U	0.05 U	0.05 U
cis-1,2-Dichloroethene	-	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
cis-1,3-Dichloropropene	10	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
Dibromochloromethane	12	0.0011 U	0.0012 U	-	0.02 U	0.07 U	0.02 U	0.053 U	0.02 U	-	0.049 U	0.048 U	0.02 U	0.02 U	-	0.00087 U	0.12 U	0.052 U	0.02 U	0.02 U
Dibromomethane	-	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
Dichlorobromomethane	-	0.0011 U	0.0012 U	-	-	0.07 U	-	0.053 U	-	-	0.049 U	0.048 U	-	-	-	0.00087 U	0.12 U	0.052 U	-	-
Dichlorodifluoromethane	16000	-	-	-	0.05 U	-	0.05 U	-	0.05 U	-	-	-	0.05 U	0.05 U	-	-	-	-	0.05 U	0.05 U
Ethylene dibromide	0.005	0.0011 U	0.0012 U	-	0.005 U	0.07 U	0.005 U	0.053 U	0.005 U	-	0.049 U	0.048 U	0.005 U	0.005 U	-	0.00087 U	0.12 U	0.052 U	0.005 U	0.005 U
Hexachloro-1,3-butadiene	13	-	-	-	0.05 U	-	0.05 U	-	0.05 U	-	-	-	0.05 U	0.05 U	-	-	-	-	0.05 U	0.05 U
Hexachlorobutadiene	-	0.0057 U	0.0058 U	-	0.5 U	0.35 U	-	0.26 U	0.5 U	-	0.24 U	0.24 U	0.5 U	0.5 U	-	0.0044 U	0.59 U	0.26 U	-	-
Isopropylbenzene	-	0.0011 U	0.0012 U	-	5.1	0.17	0.25	0.31	1.5	-	0.13	0.44	0.059	0.061	-	0.00087 U	0.74	3.1	0.05 U	0.057
Isopropyltoluene	-	-	-	-	1.1	-	0.053	-	0.57	-	-	-	0.17	0.05 U	-	-	-	-	0.05 U	0.05 U
Methyl Iodide	-	0.0057 U	0.0058 U	-	-	0.35 U	-	0.26 U	-	-	0.24 U	0.24 U	-	-	-	0.0044 U	0.59 U	0.26 U	-	-
Methyl Isobutyl Ketone	6400	0.0057 U	0.0058 U	-	-	0.35 U	-	0.26 U	-	-	0.24 U	0.24 U	-	-	-	0.0044 U	0.59 U	0.26 U	-	-
Methyl t-Butyl Ether	0.1	0.0011 U	0.0012 U	-	-	0.07 U	-	0.053 U	-	-	0.049 U	0.048 U	-	-	-	0.00087 U	0.12 U	0.052 U	-	-
Methylene chloride	0.02	0.0057 U	0.0058 U	-	0.02 U	0.35 U	0.02 U	0.26 U	0.02 U	-	0.24 U	0.24 U	0.02 U	0.02 U	-	0.0044 U	0.59 U	0.26 U	0.02 U	0.02 U
MTBE	0.1	-	-	-	0.1 U	-	0.1 U	-	0.1 U	-	-	-	0.1 U	0.1 U	-	-	-	-	0.1 U	0.1 U
Naphthalene	5	0.0011 U	0.0012 U	-	0.16	0.099	-	1.8	4.6	-	0.45	0.32	0.1 U	0.1 U	-	0.00087 U	4.4	11	-	-
n-Butylbenzene	4000	0.0011 U	0.0012 U	-	6.8	0.18	0.44	0.75	2.3	-	0.28	2	0.21	0.16	-	0.00087 U	2.7	7.4	0.12	0.18
n-Propylbenzene	8000	0.0011 U	0.0012 U	-	20	0.55	1.2	1.3	7.6	-	0.48	1.8	0.3	0.22	-	0.00087 U	1.5	8.6	0.13	0.11
p-Isopropyltoluene	-	0.0011 U	0.0012 U	-	-	0.07 U	-	0.14	-	-	0.049 U	0.45	-	-	-	0.00087 U	1.2	2.3	-	-
sec-Butylbenzene	8000	0.0011 U	0.0012 U	-	2.4	0.071	0.14	0.18	0.79	-	0.072	0.57	0.05 U	0.05 U	-	0.00087 U	0.51	1.3	0.05 U	0.05 U
Styrene	16000	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
tert-Butylbenzene	8000	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.06	0.05 U	0.05 U
Tetrachloroethene	-	0.0023 U	0.0023 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
trans-1,2-Dichloroethene	-	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
trans-1,3-Dichloropropene	10	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U
Trichloroethene	-	0.0011 U	0.0012 U	-	0.02 U	0.07 U	0.02 U	0.053 U	0.02 U	-	0.049 U	0.048 U	0.02 U	0.02 U	-	0.00087 U	0.12 U	0.052 U	0.02 U	0.02 U
Trichlorofluoromethane	24000	-	-	-	0.05 U	-	0.05 U	-	0.05 U	-	-	-	0.05 U	0.05 U	-	-	-	-	0.05 U	0.05 U
Vinyl Acetate	80000	0.0057 U	0.0058 U	-	-	0.35 U	-	0.26 U	-	-	0.24 U	0.24 U	-	-	-	0.0044 U	0.59 U	0.26 U	-	-
Vinyl chloride	0.67	0.0011 U	0.0012 U	-	0.05 U	0.07 U	0.05 U	0.053 U	0.05 U	-	0.049 U	0.048 U	0.05 U	0.05 U	-	0.00087 U	0.12 U	0.052 U	0.05 U	0.05 U

Sample Location	Screening Level *	H-15-18	H-15-18	H-16-18	H-16-18	H-16-18	H-16-18	H-16-18	H-16-18	H-16-18	H-16-18	H-17-18	H-17-18	H-17-18	H-18-18	H-18-18	H-19-18	H-19-18	H-19-18	H-19-18
Sample Depth (feet bgs)		15	25	5-6.5	10-11.5	10-11.5 ‡	15-16.5	15-16.5 ‡	20	25-26.5	25-26.5 ‡	10-11.5	10-11.5 ‡	20-21.5	24.5	25-26.5	5-6.5	15-16.5	15-16.5 ‡	19.5
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)																				
Benz[a]anthracene	-	0.0077 U	0.0074 U	-	0.1 U	0.0086 U	-	0.0081 U	0.1 U	-	0.0074 U	0.0079 U	0.1 U	0.1 U	-	0.0077 U	0.15 U	0.0079 U	-	-
Benzo(a)pyrene	**0.1**	0.0077 U	0.0074 U	-	0.1 U	0.0086 U	-	0.0081 U	0.1 U	-	0.0074 U	0.0079 U	0.1 U	0.1 U	-	0.0077 U	0.15 U	0.0079 U	-	-
Benzo(b)fluoranthene	-	0.0077 U	0.0074 U	-	0.1 U	0.0086 U	-	0.0081 U	0.1 U	-	0.0074 U	0.0079 U	0.1 U	0.1 U	-	0.0077 U	0.15 U	0.0079 U	-	-
Benzo(j,k)fluoranthene	-	0.0077 U	0.0074 U	-	-	0.0086 U	-	0.0081 U	-	-	0.0074 U	0.0079 U	-	-	-	0.0077 U	0.15 U	0.0079 U	-	-
Benzo(k)fluoranthene	-	-	-	-	0.1 U	-	-	-	0.1 U	-	-	-	0.1 U	0.1 U	-	-	-	-	-	-
Chrysene	-	0.0077 U	0.0074 U	-	0.1 U	0.0086 U	-	0.0081 U	0.1 U	-	0.0074 U	0.0079 U	0.1 U	0.1 U	-	0.0077 U	**0.29**	0.0079 U	-	-
Dibenzo(a,h)anthracene	-	0.0077 U	0.0074 U	-	0.1 U	0.0086 U	-	0.0081 U	0.1 U	-	0.0074 U	0.0079 U	0.1 U	0.1 U	-	0.0077 U	0.15 U	0.0079 U	-	-
Indeno(1,2,3-cd)pyrene	-	0.0077 U	0.0074 U	-	0.1 U	0.0086 U	-	0.0081 U	0.1 U	-	0.0074 U	0.0079 U	0.1 U	0.1 U	-	0.0077 U	0.15 U	0.0079 U	-	-
Total cPAH TEQ ¥	**0.1**	0.0058 U	0.0056 U		0.0755 U	0.0065 U	-	0.0061 U	0.0755 U	-	0.0056 U	0.006 U	0.0755 U	0.0755 U	-	0.0058 U	**0.1154**	0.006 U	-	-
Semi-Volatile Organic Compounds (SVOCs)																				
1,2-Dinitrobenzene	**8**	0.038 U	0.037 U	-	-	0.043 U	-	0.041 U	-	-	0.037 U	0.039 U	-	-	-	0.039 U	3.7 U	0.04 U	-	-
1,2-Diphenylhydrazine	**3.3**	0.038 U	0.037 U	-	-	0.043 U	-	0.041 U	-	-	0.037 U	0.039 U	-	-	-	0.039 U	3.7 U	0.04 U	-	-
1,3-Dinitrobenzene	**8**	0.038 U	0.037 U	-	-	0.043 U	-	0.041 U	-	-	0.037 U	0.039 U	-	-	-	0.039 U	3.7 U	0.04 U	-	-
1-MethylNaphthalene	**34**	0.0077 U	0.0074 U	-	**0.63**	**0.51**	-	**1.4**	**1.1**	-	**0.18**	0.018	0.1 U	0.1 U	-	0.0077 U	**0.58**	**0.6**	-	-
2,3,4,6-Tetrachlorophenol	**2400**	0.038 U	0.037 U	-	0.1 U	0.043 U	-	0.041 U	0.1 U	-	0.037 U	0.039 U	0.1 U	0.1 U	-	0.039 U	3.7 U	0.04 U	-	-
2,3,5,6-Tetrachlorophenol	-	0.038 U	0.037 U	-	-	0.043 U	-	0.041 U	-	-	0.037 U	0.039 U	-	-	-	0.039 U	3.7 U	0.04 U	-	-
2,3-Dichloroaniline	-	0.038 U	0.037 U	-	-	0.043 U	-	0.041 U	-	-	0.037 U	0.039 U	-	-	-	0.039 U	3.7 U	0.04 U	-	-
2,4,5-Trichlorophenol	**8000**	0.038 U	0.037 U	-	0.5 U	0.043 U	-	0.041 U	0.5 U	-	0.037 U	0.039 U	0.5 U	0.5 U	-	0.039 U	3.7 U	0.04 U	-	-
2,4,6-Tribromophenol	-	-	-	-	0.5 U	-	-	-	0.5 U	-	-	-	0.5 U	0.5 U	-	-	-	-	-	-
2,4,6-Trichlorophenol	**80**	0.038 U	0.037 U	-	0.5 U	0.043 U	-	0.041 U	0.5 U	-	0.037 U	0.039 U	0.5 U	0.5 U	-	0.039 U	3.7 U	0.04 U	-	-
2,4-Dichlorophenol	**240**	0.038 U	0.037 U	-	0.5 U	0.043 U	-	0.041 U	0.5 U	-	0.037 U	0.039 U	0.5 U	0.5 U	-	0.039 U	3.7 U	0.04 U	-	-
2,4-Dimethylphenol	**1600**	0.038 U	0.037 U	-	0.5 U	0.043 U	-	0.041 U	0.5 U	-	0.037 U	0.039 U	0.5 U	0.5 U	-	0.039 U	3.7 U	0.04 U	-	-
2,4-Dinitrophenol	**160**	0.19 U	0.18 U	-	0.5 U	0.21 U	-	0.2 U	0.5 U	-	0.19 U	0.2 U	0.5 U	0.5 U	-	0.19 U	18 U	0.2 U	-	-
2,4-Dinitrotoluene	**3.2**	0.038 U	0.037 U	-	-	0.043 U	-	0.041 U	-	-	0.037 U	0.039 U	-	-	-	0.039 U	3.7 U	0.04 U	-	-
2,6-Dinitrotoluene	**0.67**	0.038 U	0.037 U	-	-	0.043 U	-	0.041 U	-	-	0.037 U	0.039 U	-	-	-	0.039 U	3.7 U	0.04 U	-	-
2-Chloronaphthalene	-	0.038 U	0.037 U	-	0.1 U	0.043 U	-	0.041 U	0.1 U	-	0.037 U	0.039 U	0.1 U	0.1 U	-	0.039 U	3.7 U	0.04 U	-	-
2-Chlorophenol	**400**	0.038 U	0.037 U	-	0.5 U	0.043 U	-	0.041 U	0.5 U	-	0.037 U	0.039 U	0.5 U	0.5 U	-	0.039 U	3.7 U	0.04 U	-	-
2-MethylNaphthalene	**320**	0.0077 U	0.0074 U	-	1	**1**	-	**2.7**	**2.4**	-	**0.4**	0.07	0.1 U	0.1 U	-	0.0077 U	**1.2**	**1.3**	-	-
2-Nitroaniline	-	0.038 U	0.037 U	-	-	0.043 U	-	0.041 U	-	-	0.037 U	0.039 U	-	-	-	0.039 U	3.7 U	0.04 U	-	-
2-Nitrophenol	-	0.038 U	0.037 U	-	0.5 U	0.043 U	-	0.041 U	0.5 U	-	0.037 U	0.039 U	0.5 U	0.5 U	-	0.039 U	3.7 U	0.04 U	-	-
3,3'-Dichlorobenzidine	**2.2**	0.19 U	0.18 U	-	-	0.21 U	-	0.2 U	-	-	0.19 U	0.2 U	-	-	-	0.19 U	18 U	0.2 U	-	-
3-Methylphenol and 4-Methylphenol coelution	-	0.038 U	0.037 U	-	0.1 U	0.043 U	-	0.041 U	0.1 U	-	0.037 U	0.039 U	0.1 U	0.1 U	-	0.039 U	3.7 U	0.04 U	-	-
3-Nitroaniline	-	0.038 U	0.037 U	-	-	0.043 U	-	0.041 U	-	-	0.037 U	0.039 U	-	-	-	0.039 U	3.7 U	0.04 U	-	-
4,6-Dinitro-2-methylphenol	-	0.19 U	0.18 U	-	-	0.21 U	-	0.2 U	-	-	0.19 U	0.2 U	-	-	-	0.19 U	18 U	0.2 U	-	-
4-Bromophenyl phenyl ether	-	-	-	-	0.1 U	-	-	-	0.1 U	-	-	-	0.1 U	0.1 U	-	-	-	-	-	-
4-Chloro-3-methylphenol	-	0.038 U	0.037 U	-	0.5 U	0.043 U	-	0.041 U	0.5 U	-	0.037 U	0.039 U	0.5 U	0.5 U	-	0.039 U	3.7 U	0.04 U	-	-
4-Chloroaniline	-	0.19 U	0.18 U	-	-	0.21 U	-	0.2 U	-	-	0.19 U	0.2 U	-	-	-	0.19 U	18 U	0.2 U	-	-
4-Chlorophenyl Phenyl Ether	-	-	-	-	-	-	-	-	0.5 U	-	-	-	0.5 U	0.5 U	-	-	-	-	-	-
4-Chlorophenyl-Phenylether	-	0.038 U	0.037 U	-	0.5 U	0.043 U	-	0.041 U	-	-	0.037 U	0.039 U	-	-	-	0.039 U	3.7 U	0.04 U	-	-
4-Nitroaniline	-	0.038 U	0.037 U	-	-	0.043 U	-	0.041 U	-	-	0.037 U	0.039 U	-	-	-	0.039 U	3.7 U	0.04 U	-	-
4-Nitrophenol	-	0.038 U	0.037 U	-	0.5 U	0.043 U	-	0.041 U	0.5 U	-	0.037 U	0.039 U	0.5 U	0.5 U	-	0.039 U	3.7 U	0.04 U	-	-
Acenaphthene	**4800**	0.0077 U	0.0074 U	-	0.1 U	0.0086 U	-	0.014	0.1 U	-	0.0074 U	0.0079 U	0.1 U	0.1 U	-	0.0077 U	0.15 U	0.0079 U	-	-
Acenaphthylene	-	0.0077 U	0.0074 U	-	0.1 U	0.0086 U	-	0.0081 U	0.1 U	-	0.0074 U	0.0079 U	0.1 U	0.1 U	-	0.0077 U	0.15 U	0.0079 U	-	-
Aniline	**180**	0.19 U	0.18 U	-	-	0.21 U	-	0.2 U	-	-	0.19 U	0.2 U	-	-	-	0.19 U	18 U	0.2 U	-	-
Anthracene	**24000**	0.0077 U	0.0074 U	-	0.1 U	0.0086 U	-	0.023	0.1 U	-	0.0074 U	0.0079 U	0.1 U	0.1 U	-	0.0077 U	0.15 U	0.0079 U	-	-
Benzene, 1,4-Dinitro-	**8**	0.038 U	0.037 U	-	-	0.043 U	-	0.041 U	-	-	0.037 U	0.039 U	-	-	-	0.039 U	3.7 U	0.04 U	-	-
Benzidine	**0.0043**	0.38 U	0.37 U	-	-	0.43 U	-	0.41 U	-	-	0.37 U	0.39 U	-	-	-	0.39 U	37 U	0.4 U	-	-
Benzo(ghi)perylene	-	0.0077 U	0.0074 U	-	0.1 U	0.0086 U	-	0.0081 U	0.1 U	-	0.0074 U	0.0079 U	0.1 U	0.1 U	-	0.0077 U	0.15 U	0.0079 U	-	-
Benzyl alcohol	**8000**	0.19 U	0.18 U	-	-	0.21 U	-	0.2 U	-	-	0.19 U	0.2 U	-	-	-	0.19 U	18 U	0.2 U	-	-
Bis(2-Chloroethoxy)Methane	-	0.038 U	0.037 U	-	0.1 U	0.043 U	-	0.041 U	0.1 U	-	0.037 U	0.039 U	0.1 U	0.1 U	-	0.039 U	3.7 U	0.04 U	-	-
bis(2-Chloroethyl)ether	**0.91**	0.038 U	0.037 U	-	-	0.043 U	-	0.041 U	-	-	0.037 U	0.039 U	-	-	-	0.039 U	3.7 U	0.04 U	-	-
bis(2-Chloroisopropyl)ether	-	0.038 U	0.037 U	-	-	0.043 U	-	0.041 U	-	-	0.037 U	0.039 U	-	-	-	0.039 U	3.7 U	0.04 U	-	-
Bis(2-ethylhexyl) ether	-	-	-	-	0.1 U	-	-	-	0.1 U	-	-	-	0.1 U	0.1 U	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	**71**	0.19 U	0.18 U	-	-	0.21 U	-	0.2 U	-	-	0.19 U	0.2 U	-	-	-	0.19 U	18 U	0.2 U	-	-
Butyl benzyl phthalate	**530**	0.19 U	0.18 U	-	0.5 U	0.21 U	-	0.2 U	0.5 U	-	0.19 U	0.2 U	0.5 U	0.5 U	-	0.19 U	18 U	0.2 U	-	-
Carbazole	-	0.038 U	0.037 U	-	-	0.043 U	-	0.041 U	-	-	0.037 U	0.039 U	-	-	-	0.039 U	3.7 U	0.04 U	-	-
Di(2-ethylhexyl) adipate	**830**	0.19 U	0.18 U	-	-	0.21 U	-	0.2 U	-	-	0.19 U	0.2 U	-	-	-	0.19 U	18 U	0.2 U	-	-

Sample Location	Screening Level *	H-15-18	H-15-18	H-16-18	H-16-18	H-16-18	H-16-18	H-16-18	H-16-18	H-16-18	H-16-18	H-17-18	H-17-18	H-17-18	H-18-18	H-18-18	H-19-18	H-19-18	H-19-18	H-19-18
Sample Depth (feet bgs)		15	25	5-6.5	10-11.5	10-11.5 ‡	15-16.5	15-16.5 ‡	20	25-26.5	25-26.5 ‡	10-11.5	10-11.5 ‡	20-21.5	24.5	25-26.5	5-6.5	15-16.5	15-16.5 ‡	19.5
Dibenzofuran	80	0.038 U	0.037 U	-	-	0.043 U	-	0.041 U	-	-	0.037 U	0.039 U	-	-	-	0.039 U	3.7 U	0.04 U	-	-
Diethyl phthalate	64000	-	-	-	0.1 U	-	-	-	0.1 U	-	-	-	0.1 U	0.1 U	-	-	-	-	-	-
Diethylphthalate	64000	0.19 U	0.18 U	-	-	0.21 U	-	0.2 U	-	-	0.19 U	0.2 U	-	-	-	0.19 U	18 U	0.2 U	-	-
Dimethylphthalate	-	0.038 U	0.037 U	-	0.1 U	0.043 U	-	0.041 U	0.1 U	-	0.037 U	0.039 U	0.1 U	0.1 U	-	0.039 U	3.7 U	0.04 U	-	-
Di-n-butylphthalate	-	0.19 U	0.18 U	-	0.1 U	0.21 U	-	0.2 U	0.1 U	-	0.19 U	0.2 U	0.1 U	0.1 U	-	0.19 U	18 U	0.2 U	-	-
Di-n-octylphthalate	-	0.19 U	0.18 U	-	0.5 U	0.21 U	-	0.2 U	0.5 U	-	0.19 U	0.2 U	0.5 U	0.5 U	-	0.19 U	18 U	0.2 U	-	-
Fluoranthene	3200	0.0077 U	0.0074 U	-	0.1 U	0.0086 U	-	**0.042**	0.1 U	-	0.0074 U	0.0079 U	0.1 U	0.1 U	-	0.0077 U	0.15 U	**0.012**	-	-
Fluorene	3200	0.0077 U	0.0074 U	-	0.1 U	0.0086 U	-	**0.025**	0.1 U	-	0.0074 U	0.0079 U	0.1 U	0.1 U	-	0.0077 U	0.15 U	0.0079 U	-	-
Hexachlorobenzene	0.63	0.038 U	0.037 U	-	0.1 U	0.043 U	-	0.041 U	0.1 U	-	0.037 U	0.039 U	0.1 U	0.1 U	-	0.039 U	3.7 U	0.04 U	-	-
Hexachlorocyclopentadiene	480	0.038 U	0.037 U	-	0.1 U	0.043 U	-	0.041 U	0.1 U	-	0.037 U	0.039 U	0.1 U	0.1 U	-	0.039 U	3.7 U	0.04 U	-	-
Hexachloroethane	25	0.038 U	0.037 U	-	0.1 U	0.043 U	-	0.041 U	0.1 U	-	0.037 U	0.039 U	0.1 U	0.1 U	-	0.039 U	3.7 U	0.04 U	-	-
Isophorone	1100	0.038 U	0.037 U	-	-	0.043 U	-	0.041 U	-	-	0.037 U	0.039 U	-	-	-	0.039 U	3.7 U	0.04 U	-	-
Nitrobenzene	160	0.038 U	0.037 U	-	-	0.043 U	-	0.041 U	-	-	0.037 U	0.039 U	-	-	-	0.039 U	3.7 U	0.04 U	-	-
n-Nitrosodimethylamine	0.02	0.038 U	0.037 U	-	-	0.043 U	-	0.041 U	-	-	0.037 U	0.039 U	-	-	-	0.039 U	3.7 U	0.04 U	-	-
N-Nitrosodi-n-propylamine	-	0.038 U	0.037 U	-	-	0.043 U	-	0.041 U	-	-	0.037 U	0.039 U	-	-	-	0.039 U	3.7 U	0.04 U	-	-
N-Nitrosodiphenylamine	200	0.038 U	0.037 U	-	0.1 U	0.043 U	-	0.041 U	0.1 U	-	0.037 U	0.039 U	0.1 U	0.1 U	-	0.039 U	3.7 U	0.04 U	-	-
o-Cresol	4000	0.038 U	0.037 U	-	0.1 U	0.043 U	-	0.041 U	0.1 U	-	0.037 U	0.039 U	0.1 U	0.1 U	-	0.039 U	3.7 U	0.04 U	-	-
PBDE-003	-	0.038 U	0.037 U	-	-	0.043 U	-	0.041 U	-	-	0.037 U	0.039 U	-	-	-	0.039 U	3.7 U	0.04 U	-	-
Pentachlorophenol	2.5	0.19 U	0.18 U	-	0.5 U	0.21 U	-	0.2 U	0.5 U	-	0.19 U	0.2 U	0.5 U	0.5 U	-	0.19 U	18 U	0.2 U	-	-
Phenanthrene	-	0.0077 U	0.0074 U	-	0.1 U	0.0086 U	-	0.099	0.1 U	-	0.0074 U	0.0079 U	0.1 U	0.1 U	-	0.0077 U	**0.29**	**0.017**	-	-
Phenol	24000	0.038 U	0.037 U	-	0.5 U	0.043 U	-	0.041 U	0.5 U	-	0.037 U	0.039 U	0.5 U	0.5 U	-	0.039 U	3.7 U	0.04 U	-	-
Pyrene	2400	0.0077 U	0.0074 U	-	0.1 U	0.0086 U	-	**0.041**	0.1 U	-	0.0074 U	0.0079 U	0.1 U	0.1 U	-	0.0077 U	**0.22**	**0.014**	-	-
Pyridine	80	0.38 U	0.37 U	-	-	0.43 U	-	0.41 U	-	-	0.37 U	0.39 U	-	-	-	0.39 U	37 U	0.4 U	-	-

Sample Location	Screening Level *	H-19-18	H-19-18	H-20-18	H-20-18	H-20-18	H-21-18	H-21-18	H-21-18	H-21-18	H-667p-15	H-691p-16	MW-1-19	MW-1-19	MW-1-19	MW-2-19	MW-2-19	MW-4-19	MW-4-19	MW-5-20	RW-1-19
Sample Depth (feet bgs)		20-21.5	25-26.5	10-11.5	10-11.5 ‡	20-21.5	10-11.5	16.5	20-21.5	20-21.5 ‡	7.5	9	15	15 ‡	30	16	20.5	16.5	26	15	20
Total Petroleum Hydrocarbons																					
Gasoline Range Organics	**30 ****	**16**	12 U	**8.8**	6.5 U	5 U	5 U	5 U	5.8 U	4.8 U	-	-	4.5 U	5.3 U	3.6 U	6.2 U	5 U	12 U	4.7 U	5.8 U	**310**
Diesel Range Organics	**2000**	20 U	72 U	20 U	30 U	20 U	20 U	20 U	28 U	27 U	-	-	-	-	-	-	-	-	-	-	-
Lube Oil	**2000**	50 U	58 U	50 U	60 U	50 U	50 U	50 U	56 U	54 U	-	-	-	-	-	-	-	-	-	-	-
Mineral spirits	**4000**	5 U	-	5 U	-	5 U	5 U	5 U	-	-	-	-	-	-	-	-	-	-	-	-	-
Kerosene	**-**	20 U	-	20 U	-	20 U	20 U	20 U	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)																					
Benzene	**0.03**	0.02 U	**0.005**	**1.1**	**0.93**	0.02 U	20 U	0.02 U	0.001 U	0.00072 U	-	-	0.00062 U	0.00089 U	0.00079 U	0.0011 U	0.00074 U	0.00098 U	0.00078 U	0.0010 U	**2.2**
Toluene	**7**	0.05 U	**0.017**	**0.088**	**0.028**	0.05 U	50 U	0.05 U	0.0052 U	0.0036 U	-	-	0.0031 U	0.0045 U	0.0039 U	0.0054 U	0.0037 U	0.0049 U	0.0039 U	0.0052 U	0.26 U
Ethylbenzene	**6**	**0.15**	**0.023**	**0.34**	**0.034**	0.05 U	50 U	0.05 U	0.001 U	0.00072 U	-	-	0.00062 U	0.00089 U	0.00079 U	0.0011 U	0.00074 U	0.0014	0.00078 U	0.0010 U	**5.4**
m, p-Xylene	**16000**	-	**0.1**	-	**0.021**	-	-	-	0.0021 U	0.0014 U	-	-	0.0012 U	0.0018 U	0.0016 U	0.0022 U	0.0015 U	0.002 U	0.0016 U	0.0021 U	**2.1**
o-Xylene	**16000**	-	**0.023**	-	**0.0051**	-	-	-	0.001 U	0.00072 U	-	-	0.00062 U	0.00089 U	0.00079 U	0.0011 U	0.00074 U	0.00098 U	0.00078 U	0.0010 U	**0.21**
Xylenes	**9**	**0.65**	**0.123**	**0.15**	**0.0261**	0.05 U	50 U	0.05 U	0.0031 U	0.00212 U	-	-	0.00182 U	0.00269 U	0.00239 U	0.0033 U	0.00224 U	0.00298 U	0.00238 U	0.0031 U	**2.31**
Volatile Petroleum Hydrocarbons																					
Hexane	**4800**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.5
>C10-C12 Aliphatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25
>C10-C12 Aromatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51
>C12-C13 Aromatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54
>C6-C8 Aliphatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	130
>C8-C10 Aliphatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63
>C8-C10 Aromatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62
C5-C6 Aliphatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
Total Aliphatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	240
Total Aromatics	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	170
Total Metals																					
Antimony	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	**20**	-	12 U	-	12 U	-	-	-	11 U	11 U	11 U	11 U	12 U	12 U	-	12 U	-	11 U	-	**11**	12 U
Barium	**16000**	-	**57**	-	**130**	-	-	-	**55**	**52**	**49**	**37**	**51**	**30**	-	**31**	-	**34**	-	**46**	**30**
Beryllium	**160**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	**2**	-	0.58 U	-	0.6 U	-	-	-	0.56 U	0.54 U	0.57 U	0.56 U	0.59 U	0.58 U	-	0.6 U	-	0.57 U	-	0.55 U	0.6 U
Chromium	**2000 †**	-	**49**	-	**58**	-	-	-	**52**	**52**	**44**	**32**	**22**	**14**	-	**20**	-	**21**	-	**38**	**23**
Chromium (TCLP) (mg/L)	**5.0 mg/L ¥**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	**3,200**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	**250**	-	6	-	6 U	-	-	-	5.6 U	5.4 U	**20**	5.6 U	5.9 U	5.8 U	-	6 U	-	5.7 U	-	5.5 U	6 U
Mercury	**2**	-	0.29 U	-	0.3 U	-	-	-	0.28 U	0.27 U	0.29 U	0.28 U	0.3 U	0.29 U	-	0.3 U	-	0.28 U	-	0.27 U	0.3 U
Nickel	**1600**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	**400**	-	12 U	-	12 U	-	-	-	11 U	11 U	11 U	11 U	12 U	12 U	-	12 U	-	11 U	-	11 U	12 U
Silver	**400**	-	1.2 U	-	1.2 U	-	-	-	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	1.2 U	-	1.2 U	-	1.1 U	-	1.1 U	1.2 U
Thallium	**0.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	**24000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polychlorinated Biphenyls (PCBs)																					
PCB-aroclor 1016	**5.6**	-	0.058 U	-	0.06 U	-	-	-	0.056 U	0.054 U	-	-	-	-	-	-	-	-	-	-	-
PCB-aroclor 1221	**-**	-	0.058 U	-	0.06 U	-	-	-	0.056 U	0.054 U	-	-	-	-	-	-	-	-	-	-	-
PCB-aroclor 1232	**-**	-	0.058 U	-	0.06 U	-	-	-	0.056 U	0.054 U	-	-	-	-	-	-	-	-	-	-	-
PCB-aroclor 1242	**-**	-	0.058 U	-	0.06 U	-	-	-	0.056 U	0.054 U	-	-	-	-	-	-	-	-	-	-	-
PCB-aroclor 1248	**-**	-	0.058 U	-	0.06 U	-	-	-	0.056 U	0.054 U	-	-	-	-	-	-	-	-	-	-	-
PCB-aroclor 1254	**0.5**	-	0.058 U	-	0.06 U	-	-	-	0.056 U	0.054 U	-	-	-	-	-	-	-	-	-	-	-
PCB-aroclor 1260	**0.5**	-	0.058 U	-	0.06 U	-	-	-	0.056 U	0.054 U	-	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (VOCs)													-	-	-	-	-	-	-		-
1,1,1,2-Tetrachloroethane	**38**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	**2**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	**5**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	**18**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	**180**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	**-**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloropropene	**-**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichlorobenzene	**-**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	**0.033**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	**34**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-

Sample Location	Screening Level *	H-19-18	H-19-18	H-20-18	H-20-18	H-20-18	H-21-18	H-21-18	H-21-18	H-21-18	H-667p-15	H-691p-16	MW-1-19	MW-1-19	MW-1-19	MW-2-19	MW-2-19	MW-4-19	MW-4-19	MW-5-20	RW-1-19
Sample Depth (feet bgs)		20-21.5	25-26.5	10-11.5	10-11.5 ‡	20-21.5	10-11.5	16.5	20-21.5	20-21.5 ‡	7.5	9	15	15 ‡	30	16	20.5	16.5	26	15	20
1,2,4-Trimethylbenzene	**800**	**0.53**	**0.082**	**0.14**	0.0035	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-Chloropropane	**1.3**	0.05 U	0.0051 U	0.05 U	0.005 U	0.05 U	-	0.05 U	0.0052 U	0.0036 U	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	**7200**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane (EDC)	**11**	0.02 U	0.001 U	0.02 U	0.001 U	0.02 U	-	0.02 U	0.001 U	0.00072 U	-	-	0.00062 U	0.00089 U	-	0.0011 U	-	0.00098 U	-	0.0010 U	0.051 U
1,2-Dichloropropane	**27**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	**800**	**0.21**	**0.031**	**0.14**	**0.0035**	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	**-**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropane	**-**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	**190**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
2,2-Dichloropropane	**-**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
2-Butanone	**-**	-	0.013	-	**0.023**	-	-	-	0.0052 U	0.0036 U	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethylvinylether	**-**	-	0.0051 U	-	0.005 U	-	-	-	0.0052 U	0.0036 U	-	-	-	-	-	-	-	-	-	-	-
2-Chlorotoluene	**1600**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	**400**	-	0.0051 U	-	0.005 U	-	-	-	0.0052 U	0.0036 U	-	-	-	-	-	-	-	-	-	-	-
4-Chlorotoluene	**-**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
Acetone	**72000**	-	**0.054**	-	**0.08**	-	-	-	0.01 U	0.0072 U	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	**640**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
Bromochloromethane	**-**	-	0.001 U	-	0.001 U	-	-	-	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	**16**	0.05 U	-	0.05 U	-	0.05 U	-	0.05 U	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	**130**	0.05 U	0.0051 U	0.05 U	0.005 U	0.05 U	-	0.05 U	0.0052 U	0.0036 U	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	**110**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
Carbon Disulfide	**8000**	-	**0.002**	-	0.001 U	-	-	-	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	**14**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
CFC-11	**-**	-	0.001 U	-	0.001 U	-	-	-	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
CFC-12	**-**	-	0.001 U	-	0.001 U	-	-	-	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	**1600**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	**-**	0.05 U	0.0051 U	0.05 U	0.005 U	0.05 U	-	0.05 U	0.0052 U	0.0036 U	-	-	-	-	-	-	-	-	-	-	-
Chloroform	**32**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
Chloromethane	**-**	0.05 U	0.0051 U	0.05 U	0.005 U	0.05 U	-	0.05 U	0.0052 U	0.0036 U	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	**-**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	**10**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	**12**	0.02 U	0.001 U	0.02 U	0.001 U	0.02 U	-	0.02 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	**-**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
Dichlorobromomethane	**-**	-	0.001 U	-	0.001 U	-	-	-	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	**16000**	0.05 U	-	0.05 U	-	0.05 U	-	0.05 U	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylene dibromide	**0.005**	0.005 U	0.001 U	0.005 U	0.001 U	0.005 U	-	0.005 U	0.001 U	0.00072 U	-	-	0.00062 U	0.00089 U	-	0.0011 U	-	0.00098 U	-	-	0.051 U
Hexachloro-1,3-butadiene	**13**	0.05 U	-	0.05 U	-	0.05 U	-	0.05 U	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	**-**	-	0.0051 U	-	0.005 U	-	-	-	0.0052 U	0.0036 U	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	**-**	0.064	**0.0059**	**0.059**	0.012	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
Isopropyltoluene	**-**	0.05 U	-	0.05 U	-	0.05 U	-	0.05 U	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Iodide	**-**	-	0.0051 U	-	0.005 U	-	-	-	0.0052 U	0.0036 U	-	-	-	-	-	-	-	-	-	-	-
Methyl Isobutyl Ketone	**6400**	-	0.0051 U	-	0.005 U	-	-	-	0.0052 U	0.0036 U	-	-	-	-	-	-	-	-	-	-	-
Methyl t-Butyl Ether	**0.1**	-	0.001 U	-	0.001 U	-	-	-	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	**0.02**	0.02 U	0.0051 U	0.02 U	0.005 U	0.02 U	-	0.02 U	0.0052 U	0.0036 U	-	-	-	-	-	-	-	-	-	-	-
MTBE	**0.1**	0.1 U	-	0.1 U	-	0.1 U	-	0.1 U	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	**5**	-	**0.0063**	-	0.001 U	-	-	-	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
n-Butylbenzene	**4000**	**0.23**	**0.0074**	**0.18**	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
n-Propylbenzene	**8000**	**0.14**	**0.012**	**0.25**	**0.0029**	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
p-Isopropyltoluene	**-**	-	**0.0038**	-	**0.0059**	-	-	-	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
sec-Butylbenzene	**8000**	0.05 U	**0.003**	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
Styrene	**16000**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	**8000**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	**-**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	**-**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	**10**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	**-**	0.02 U	0.001 U	0.02 U	0.001 U	0.02 U	-	0.02 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	**24000**	0.05 U	-	0.05 U	-	0.05 U	-	0.05 U	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl Acetate	**80000**	-	0.0051 U	-	0.005 U	-	-	-	0.0052 U	0.0036 U	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	**0.67**	0.05 U	0.001 U	0.05 U	0.001 U	0.05 U	-	0.05 U	0.001 U	0.00072 U	-	-	-	-	-	-	-	-	-	-	-

Sample Location	Screening	H-19-18	H-19-18	H-20-18	H-20-18	H-20-18	H-21-18	H-21-18	H-21-18	H-21-18	H-667p-15	H-691p-16	MW-1-19	MW-1-19	MW-1-19	MW-2-19	MW-2-19	MW-4-19	MW-4-19	MW-5-20	RW-1-19
Sample Depth (feet bgs)	Level *	20-21.5	25-26.5	10-11.5	10-11.5 ‡	20-21.5	10-11.5	16.5	20-21.5	20-21.5 ‡	7.5	9	15	15 ‡	30	16	20.5	16.5	26	15	20
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)																					
Benz[a]anthracene	-	-	0.0077 U	-	0.0081 U	-	-	-	0.0075 U	0.0072 U	-	-	0.0079 U	0.0078 U	-	0.008 U	-	0.0075 U	-	0.0073 U	0.008 U
Benzo(a)pyrene	0.1	-	0.0077 U	-	0.0081 U	-	-	-	0.0075 U	0.0072 U	-	-	0.0079 U	0.0078 U	-	0.008 U	-	0.0075 U	-	0.0073 U	0.008 U
Benzo(b)fluoranthene	-	-	0.0077 U	-	0.0081 U	-	-	-	0.0075 U	0.0072 U	-	-	0.0079 U	0.0078 U	-	0.008 U	-	0.0075 U	-	0.0073 U	0.008 U
Benzo(j,k)fluoranthene	-	-	0.0077 U	-	0.0081 U	-	-	-	0.0075 U	0.0072 U	-	-	0.0079 U	0.0078 U	-	0.008 U	-	0.0075 U	-	0.0073 U	0.008 U
Benzo(k)fluoranthene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	-	-	0.0077 U	-	0.0081 U	-	-	-	0.0075 U	0.0072 U	-	-	0.0079 U	0.0078 U	-	0.008 U	-	0.0075 U	-	0.0073 U	0.008 U
Dibenzo(a,h)anthracene	-	-	0.0077 U	-	0.0081 U	-	-	-	0.0075 U	0.0072 U	-	-	0.0079 U	0.0078 U	-	0.008 U	-	0.0075 U	-	0.0073 U	0.008 U
Indeno(1,2,3-cd)pyrene	-	-	0.0077 U	-	0.0081 U	-	-	-	0.0075 U	0.0072 U	-	-	0.0079 U	0.0078 U	-	0.008 U	-	0.0075 U	-	0.0073 U	0.008 U
Total cPAH TEQ ¥	0.1	-	0.0058 U	-	0.0061 U	-	-	-	0.0057 U	0.0054 U	-	-	0.006 U	0.0059 U	-	0.0060 U	-	0.0057 U		0.0073 U	0.0060 U
Semi-Volatile Organic Compounds (SVOCs)																					
1,2-Dinitrobenzene	8	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	3.3	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
1,3-Dinitrobenzene	8	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
1-MethylNaphthalene	34	-	**0.067**	-	0.0081 U	-	-	-	0.0075 U	0.0072 U	-	-	-	-	-	-	-	-	-	0.0073 U	-
2,3,4,6-Tetrachlorophenol	2400	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
2,3,5,6-Tetrachlorophenol	-	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
2,3-Dichloroaniline	-	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	8000	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Tribromophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	80	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	240	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	1600	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	160	-	0.19 U	-	0.2 U	-	-	-	0.19 U	0.18 U	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	3.2	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	0.67	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	-	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	400	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
2-MethylNaphthalene	320	-	**0.16**	-	0.0081 U	-	-	-	0.0075 U	0.0072 U	-	-	-	-	-	-	-	-	-	0.0073 U	-
2-Nitroaniline	-	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	-	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	2.2	-	0.19 U	-	0.2 U	-	-	-	0.19 U	0.18 U	-	-	-	-	-	-	-	-	-	-	-
3-Methylphenol and 4-Methylphenol coelution	-	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	-	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	-	-	0.19 U	-	0.2 U	-	-	-	0.19 U	0.18 U	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	-	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	-	-	0.19 U	-	0.2 U	-	-	-	0.19 U	0.18 U	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl-Phenylether	-	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	-	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	4800	-	0.0077 U	-	0.0081 U	-	-	-	0.0075 U	0.0072 U	-	-	-	-	-	-	-	-	-	0.0073 U	-
Acenaphthylene	-	-	0.0077 U	-	0.0081 U	-	-	-	0.0075 U	0.0072 U	-	-	-	-	-	-	-	-	-	0.0073 U	-
Aniline	180	-	0.19 U	-	0.2 U	-	-	-	0.19 U	0.18 U	-	-	-	-	-	-	-	-	-	-	-
Anthracene	24000	-	0.0077 U	-	0.0081 U	-	-	-	0.0075 U	0.0072 U	-	-	-	-	-	-	-	-	-	0.0073 U	-
Benzene, 1,4-Dinitro-	8	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
Benzidine	0.0043	-	0.38 U	-	0.4 U	-	-	-	0.37 U	0.36 U	-	-	-	-	-	-	-	-	-	-	-
Benzo(ghi)perylene	-	-	0.0077 U	-	0.0081 U	-	-	-	0.0075 U	0.0072 U	-	-	-	-	-	-	-	-	-	0.0073 U	-
Benzyl alcohol	8000	-	0.19 U	-	0.2 U	-	-	-	0.19 U	0.18 U	-	-	-	-	-	-	-	-	-	-	-
Bis(2-Chloroethoxy)Methane	-	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	0.91	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroisopropyl)ether	-	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
Bis(2-ethylhexyl) ether	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	71	-	0.19 U	-	0.2 U	-	-	-	0.19 U	0.18 U	-	-	-	-	-	-	-	-	-	-	-
Butyl benzyl phthalate	530	-	0.19 U	-	0.2 U	-	-	-	0.19 U	0.18 U	-	-	-	-	-	-	-	-	-	-	-
Carbazole	-	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
Di(2-ethylhexyl) adipate	830	-	0.19 U	-	0.2 U	-	-	-	0.19 U	0.18 U	-	-	-	-	-	-	-	-	-	-	-

Sample Location	Screening	H-19-18	H-19-18	H-20-18	H-20-18	H-20-18	H-21-18	H-21-18	H-21-18	H-21-18	H-667p-15	H-691p-16	MW-1-19	MW-1-19	MW-1-19	MW-2-19	MW-2-19	MW-4-19	MW-4-19	MW-5-20	RW-1-19
Sample Depth (feet bgs)	Level *	20-21.5	25-26.5	10-11.5	10-11.5 ‡	20-21.5	10-11.5	16.5	20-21.5	20-21.5 ‡	7.5	9	15	15 ‡	30	16	20.5	16.5	26	15	20
Dibenzofuran	80	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	64000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethylphthalate	64000	-	0.19 U	-	0.2 U	-	-	-	0.19 U	0.18 U	-	-	-	-	-	-	-	-	-	-	-
Dimethylphthalate	-	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	-	0.19 U	-	0.2 U	-	-	-	0.19 U	0.18 U	-	-	-	-	-	-	-	-	-	-	-
Di-n-octylphthalate	-	-	0.19 U	-	0.2 U	-	-	-	0.19 U	0.18 U	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	3200	-	0.0077 U	-	0.0081 U	-	-	-	0.0075 U	0.0072 U	-	-	-	-	-	-	-	-	-	0.0073 U	-
Fluorene	3200	-	0.0077 U	-	0.0081 U	-	-	-	0.0075 U	0.0072 U	-	-	-	-	-	-	-	-	-	0.0073 U	-
Hexachlorobenzene	0.63	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	480	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	25	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
Isophorone	1100	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	160	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
n-Nitrosodimethylamine	0.02	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	-	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	200	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
o-Cresol	4000	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
PBDE-003	-	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	2.5	-	0.19 U	-	0.2 U	-	-	-	0.19 U	0.18 U	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	-	-	0.0077 U	-	0.0081 U	-	-	-	0.0075 U	0.0072 U	-	-	-	-	-	-	-	-	-	0.0073 U	-
Phenol	24000	-	0.038 U	-	0.04 U	-	-	-	0.037 U	0.036 U	-	-	-	-	-	-	-	-	-	-	-
Pyrene	2400	-	0.0077 U	-	0.0081 U	-	-	-	0.0075 U	0.0072 U	-	-	-	-	-	-	-	-	-	0.0073 U	-
Pyridine	80	-	0.38 U	-	0.4 U	-	-	-	0.37 U	0.36 U	-	-	-	-	-	-	-	-	-	-	-

See Sheet 16 for Notes

Sample Location	Screening Level *	RW-1-19	RW-1-19	SB-2-19	SB-2-19	SB-3-19	SB-3-19	SB-4-19	SB-4-19	SB-5-19	SB-5-19	SB-6-19	SB-6-19	SB-7-19	SB-7-19	SB-7-19	SB-8-19	SB-8-19	SB-8-19	SB-9-19	SB-9-19	SG-1-19	SG-1-19
Sample Depth (feet bgs)		20 ‡	35	25	30	10	15	10	16	12.5	16.5	16.5	25	15	15 ‡	25	10	10 ‡	15	20	25	5	15
Total Petroleum Hydrocarbons																							
Gasoline Range Organics	30 **	**100**	7.1 U	**37**	**160**	4.4 U	5.1 U	5.7 U	5.5 U	**300**	6.6 U	**21**	6 U	**210**	**330**	6.2 U	4.2 U	5.4 U	4.8 U	**410**	5.6 U	4.1 U	4.3 U
Diesel Range Organics	2000	-	-	43 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lube Oil	2000	-	-	59 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mineral spirits	4000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kerosene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)																							
Benzene	0.03	**0.82**	**0.009**	**0.39**	**0.46**	0.00094 U	0.00089 U	0.0013 U	0.00095 U	**0.35**	**0.0091**	**0.89**	0.0011 U	**0.061**	0.068 U	0.0013 U	0.00071 U	0.0010 U	0.00092 U	0.063 U	0.0012 U	0.0008 U	0.0007 U
Toluene	7	0.22 U	0.0057 U	**0.58**	0.36 U	0.0047 U	0.0044 U	0.0066 U	0.0047 U	1.1 U	0.0052 U	**0.27**	0.0053 U	0.27 U	0.34 U	0.0063 U	0.0035 U	0.0052 U	0.0046 U	0.32 U	0.006 U	0.004 U	0.0035 U
Ethylbenzene	6	**0.77**	**0.018**	**2.2**	**0.84**	0.00094 U	0.00089 U	0.0013 U	0.00095 U	**17**	**0.0025**	**0.57**	0.0011 U	0.055 U	0.068 U	0.0013 U	0.00071 U	0.0010 U	0.00092 U	**0.077**	0.0012 U	0.0008 U	0.0007 U
m, p-Xylene	16000	**0.78**	**0.011**	**9.7**	**4**	0.0019 U	0.0018 U	0.0026 U	0.0019 U	**3.1**	**0.0026**	**2.3**	0.0021 U	0.11 U	0.14 U	0.0025 U	0.0014 U	0.0021 U	0.0018 U	**0.19**	0.0024 U	0.0016 U	0.0014 U
o-Xylene	16000	**0.16**	**0.0015**	**3.3**	**1.2**	0.00094 U	0.00089 U	0.0013 U	0.00095 U	**0.44**	0.001 U	**0.93**	0.0011 U	0.055 U	0.068 U	0.0013 U	0.00071 U	0.0010 U	0.00092 U	0.063 U	0.0012 U	0.0008 U	0.0007 U
Xylenes	9	**0.94**	**0.0125**	**13**	**5.2**	0.00284 U	0.00269 U	0.0039 U	0.00285 U	**3.54**	**0.0026**	**3.23**	0.0032 U	0.165 U	0.208 U	0.0038 U	0.00211 U	0.0031 U	0.00272 U	**0.19**	0.0036 U	0.0024 U	0.0021 U
Volatile Petroleum Hydrocarbons																							
Hexane	4800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
>C10-C12 Aliphatics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
>C10-C12 Aromatics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
>C12-C13 Aromatics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
>C6-C8 Aliphatics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
>C8-C10 Aliphatics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
>C8-C10 Aromatics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C5-C6 Aliphatics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Aliphatics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Aromatics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Metals																							
Antimony	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	20	12 U	-	12 U	-	-	12 U	12 U	-	11 U	-	12 U	-	12 U	12 U	-	11 U	11 U	-	11 U	-	11 U	-
Barium	16000	**66**	-	**21**	-	-	**58**	**46**	-	**32**	-	**39**	-	**49**	**43**	-	**38**	**43**	-	**28**	-	**41**	-
Beryllium	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	2	0.58 U	-	0.58 U	-	-	0.6 U	0.58 U	-	0.57 U	-	0.58 U	-	0.58 U	0.58 U	-	0.57 U	0.57 U	-	0.54 U	-	0.56 U	-
Chromium	2000 †	**37**	-	**16**	-	-	**27**	**21**	-	**23**	-	**21**	-	**26**	**22**	-	**18**	**22**	-	**20**	-	**25**	-
Chromium (TCLP) (mg/L)	5.0 mg/L ¥	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	3,200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	250	5.8 U	-	5.8 U	-	-	6 U	5.8 U	-	5.7 U	-	5.8 U	-	5.8 U	5.8 U	-	5.7 U	5.7 U	-	5.4 U	-	5.6 U	-
Mercury	2	0.29 U	-	0.29 U	-	-	0.3 U	0.29 U	-	0.28 U	-	0.29 U	-	0.29 U	0.29 U	-	0.28 U	0.28 U	-	0.27 U	-	0.28 U	-
Nickel	1600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	400	12 U	-	12 U	-	-	12 U	12 U	-	11 U	-	12 U	-	12 U	12 U	-	11 U	11 U	-	11 U	-	11 U	-
Silver	400	1.2 U	-	1.2 U	-	-	1.2 U	1.2 U	-	1.1 U	-	1.2 U	-	1.2 U	1.2 U	-	1.1 U	1.1 U	-	1.1 U	-	1.1 U	-
Thallium	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	24000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polychlorinated Biphenyls (PCBs)																							
PCB-aroclor 1016	5.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB-aroclor 1221	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB-aroclor 1232	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB-aroclor 1242	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB-aroclor 1248	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB-aroclor 1254	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB-aroclor 1260	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (VOCs)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1,2-Tetrachloroethane	38	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	2	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	5	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	18	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	180	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloropropene	-	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichlorobenzene	-	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	0.033	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	34	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Sample Location	Screening Level *	RW-1-19	RW-1-19	SB-2-19	SB-2-19	SB-3-19	SB-3-19	SB-4-19	SB-4-19	SB-5-19	SB-5-19	SB-6-19	SB-6-19	SB-7-19	SB-7-19	SB-7-19	SB-8-19	SB-8-19	SB-8-19	SB-9-19	SB-9-19	SG-1-19	SG-1-19
Sample Depth (feet bgs)		20 ‡	35	25	30	10	15	10	16	12.5	16.5	16.5	25	15	15 ‡	25	10	10 ‡	15	20	25	5	15
1,2,4-Trimethylbenzene	800	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-Chloropropane	1.3	-	-	-	-	0.0047 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	7200	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane (EDC)	11	0.044 U	-	0.068 U	-	0.00094 U	0.00089 U	0.0013 U	-	0.21 U	-	0.052 U	-	0.055 U	03068 U	-	0.00071 U	0.0010 U	-	0.063 U	-	0.0008 U	-
1,2-Dichloropropane	27	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	800	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropane	-	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	190	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,2-Dichloropropane	-	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone	-	-	-	-	-	**0.0075**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethylvinylether	-	-	-	-	-	0.0047 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorotoluene	1600	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	400	-	-	-	-	0.0047 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorotoluene	-	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	72000	-	-	-	-	**0.055**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	640	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromochloromethane	-	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	130	-	-	-	-	0.0047 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	110	-	-	-	-	0.0012 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Disulfide	8000	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	14	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CFC-11	-	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CFC-12	-	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	1600	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	-	-	-	-	-	0.0047 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	32	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane	-	-	-	-	-	0.0047 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	10	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	12	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	-	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorobromomethane	-	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	16000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylene dibromide	0.005	0.044 U	-	0.068 U	-	0.00094 U	0.00089 U	0.0013 U	-	0.21 U	-	0.052 U	-	0.055 U	0.068 U	-	0.00071 U	0.0010 U	-	0.063 U	-	0.0008 U	-
Hexachloro-1,3-butadiene	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	-	-	-	-	-	0.0047 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	-	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropyltoluene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Iodide	-	-	-	-	-	0.0047 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Isobutyl Ketone	6400	-	-	-	-	0.0047 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl t-Butyl Ether	0.1	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	0.02	-	-	-	-	0.0047 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MTBE	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	5	-	-	-	-	0.0047 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
n-Butylbenzene	4000	-	-	-	-	**0.00098**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
n-Propylbenzene	8000	-	-	-	-	**0.00098**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Isopropyltoluene	-	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
sec-Butylbenzene	8000	-	-	-	-	**0.0018**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	16000	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	8000	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	10	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	-	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	24000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl Acetate	80000	-	-	-	-	0.0047 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	0.67	-	-	-	-	0.00094 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Sample Location	Screening Level *	RW-1-19	RW-1-19	SB-2-19	SB-2-19	SB-3-19	SB-3-19	SB-4-19	SB-4-19	SB-5-19	SB-5-19	SB-6-19	SB-6-19	SB-7-19	SB-7-19	SB-7-19	SB-8-19	SB-8-19	SB-8-19	SB-9-19	SB-9-19	SG-1-19	SG-1-19
Sample Depth (feet bgs)		20 ‡	35	25	30	10	15	10	16	12.5	16.5	16.5	25	15	15 ‡	25	10	10 ‡	15	20	25	5	15
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)																							
Benz[a]anthracene	-	0.0077 U	-	0.0078 U	-	-	0.008 U	0.0078 U	-	0.0075 U	-	0.0077 U	-	0.0077 U	0.0078 U	-	0.0076 U	0.0076 U	-	0.0071 U	-	0.0075 U	-
Benzo(a)pyrene	0.1	0.0077 U	-	0.0078 U	-	-	0.008 U	0.0078 U	-	0.0075 U	-	0.0077 U	-	0.0077 U	0.0078 U	-	0.0076 U	0.0076 U	-	0.0071 U	-	0.0075 U	-
Benzo(b)fluoranthene	-	0.0077 U	-	0.0078 U	-	-	0.008 U	0.0078 U	-	0.0075 U	-	0.0077 U	-	0.0077 U	0.0078 U	-	0.0076 U	0.0076 U	-	0.0071 U	-	0.0075 U	-
Benzo(j,k)fluoranthene	-	0.0077 U	-	0.0078 U	-	-	0.008 U	0.0078 U	-	0.0075 U	-	0.0077 U	-	0.0077 U	0.0078 U	-	0.0076 U	0.0076 U	-	0.0071 U	-	0.0075 U	-
Benzo(k)fluoranthene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	-	0.0077 U	-	0.0078 U	-	-	0.008 U	0.0078 U	-	0.0075 U	-	0.0077 U	-	0.0077 U	0.0078 U	-	0.0076 U	0.0076 U	-	0.0071 U	-	0.0075 U	-
Dibenzo(a,h)anthracene	-	0.0077 U	-	0.0078 U	-	-	0.008 U	0.0078 U	-	0.0075 U	-	0.0077 U	-	0.0077 U	0.0078 U	-	0.0076 U	0.0076 U	-	0.0071 U	-	0.0075 U	-
Indeno(1,2,3-cd)pyrene	-	0.0077 U	-	0.0078 U	-	-	0.008 U	0.0078 U	-	0.0075 U	-	0.0077 U	-	0.0077 U	0.0078 U	-	0.0076 U	0.0076 U	-	0.0071 U	-	0.0075 U	-
Total cPAH TEQ ¥	0.1	0.0058 U	-	0.0059 U	-	-	0.0060 U	0.0059 U	-	0.0057 U	-	0.0058 U	-	0.0058 U	0.0059 U	-	0.0057 U	0.0057 U	-	0.0054 U	-	0.0057 U	-
Semi-Volatile Organic Compounds (SVOCs)																							
1,2-Dinitrobenzene	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	3.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dinitrobenzene	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-MethylNaphthalene	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,3,4,6-Tetrachlorophenol	2400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,3,5,6-Tetrachlorophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,3-Dichloroaniline	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	8000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Tribromophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	240	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	1600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	3.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	0.67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-MethylNaphthalene	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Methylphenol and 4-Methylphenol coelution	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl-Phenylether	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	4800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aniline	180	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	24000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1,4-Dinitro-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	0.0043	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(ghi)perylene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzyl alcohol	8000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bis(2-Chloroethoxy)Methane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	0.91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroisopropyl)ether	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bis(2-ethylhexyl) ether	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzyl phthalate	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbazole	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di(2-ethylhexyl) adipate	830	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Sample Location	Screening Level *	RW-1-19	RW-1-19	SB-2-19	SB-2-19	SB-3-19	SB-3-19	SB-4-19	SB-4-19	SB-5-19	SB-5-19	SB-6-19	SB-6-19	SB-7-19	SB-7-19	SB-7-19	SB-8-19	SB-8-19	SB-8-19	SB-9-19	SB-9-19	SG-1-19	SG-1-19
Sample Depth (feet bgs)		20 ‡	35	25	30	10	15	10	16	12.5	16.5	16.5	25	15	15 ‡	25	10	10 ‡	15	20	25	5	15
Dibenzofuran	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	64000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethylphthalate	64000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethylphthalate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octylphthalate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	3200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	3200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	0.63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isophorone	1100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
n-Nitrosodimethylamine	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Cresol	4000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PBDE-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	24000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	2400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyridine	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All values reported in milligrams per kilogram unless otherwise noted.

* Screening Levels are reported as the MTCA Method A cleanup levels, if established. Method B cleanup levels are shown if no Method A cleanup levels are established. The MTCA Method B cleanup levels shown are the lowest for either carcinogen or non-carcinogen, based on direct contact.

** MTCA Method A cleanup level for unrestricted land use for gasoline range organics is 100 mg/kg is no benzene present or 30 mg/kg if benzene is present.

† Cleanup level for trivalent chromium.

¥ Maximum concentration of chromium for Dangerous Waste Toxicity Characteristic

‡ Sample collected and analyzed as a field duplicate or split sample.

Shaded values indicate the detection exceeded regulatory criteria.

bgs = below ground surface; mg/L = milligrams per liter; MTCA = Model Toxics Control Act; TCLP = Toxicity Characteristic Leaching Procedure; U = analyte not detected at or above the laboratory reporting limit, reported as less than the reporting limit

Sample Location	Screening Level *	H-3-16	H-667p-15	H-667p-15	H-691p-16	H-11-18	H-14-18	H-15-18	H-16-18	H-17-18	H-18-18	H-19-18	H-20-18	H-21-18	H-21-18 ‡
Grab or MW Sample		Grab	MW	MW	MW	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Date Sampled		10/7/16	2/10/15	9/16/19	9/16/19	5/26/18	5/26/18	5/26/18	12/4/18	12/4/18	12/5/18	12/6/18	12/6/18	12/6/18	12/6/18
Total Petroleum Hydrocarbons															
Gasoline Range Organics	800**	-	170	100 U	100 U	100 U	100 U	100 U	76000	8700	1300	110000	590	1700	590
Diesel Range Organics	500	-	-	260 U	280 U	250 U	270 U	280 U	6900 U	1500 U	540 U	6400 U	690	310 U	200 U
Lube Oil	500	-	-	420 U	450 U	560	980	450 U	840	490 U	490 U	380	400 U	500 U	500 U
Mineral spirits	500	-	-	-	-	-	-	-	-	-	-	-	-	-	100 U
Kerosene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200 U
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)															
Benzene	5	7.4	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	5300	2400	32	760	450	30	4.3
Toluene	1000	1 U	1 U	1.0 U	1.0 U	1 U	1 U	1 U	510	70	10	2000	7.5	26	1 U
Ethylbenzene	700	0.7	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	4600	520	84	2200	6.2	81	11
m, p-Xylene	1600	2.1	1.6	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	14000	1300	240	9600	13	220	-
o-Xylene	1600	0.67	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	4600	410	81	2400	3.6	77	-
Xylenes §	1000	2.77	1.6	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	18600	1710	321	12000	16.6	297	45
Total Metals															
Antimony	6.4	-	5.6 U	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	5	-	5.8	-	-	480	230	160	120	180	170	570	580	52	-
Barium	3200	-	-	-	-	14000	8800	4600	1300	4100	3600	9800	11000	820	-
Beryllium	32	-	11 U	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	5	-	4.4 U	-	-	13	4.4 U	4.4 U	4.4 U	7.9	5.9	12	8.2	4.4 U	-
Chromium	24000 †	-	11 U	-	-	5900	2400	1800	430	2500	2100	4800	4500	420	-
Copper	640	-	11 U	-	-	-	-	-	-	-	-	-	-	-	-
Lead	15	-	1.1 U	-	-	510	220	180	110	170	150	800	450	34	-
Mercury	2	-	0.5 U	-	-	0.5 U	0.5 U	0.5 U	0.53	2.2	1.8	1.8	0.6	0.5 U	-
Nickel	320	-	22 U	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	80	-	5.6 U	-	-	23	12	13	5.6 U	59	16	76	46	5.6 U	-
Silver	80	-	11 U	-	-	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	-
Thallium	0.16	-	5.6 U	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	4,800	-	28 U	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Metals															
Antimony	6.4	18	5 U	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	5	3.3	3.4	-	-	-	-	-	32	12	3 U	3.9	32	3 U	1050
Barium	3200	-	-	-	-	-	-	-	150	66	25 U	37	79	25 U	1040
Beryllium	32	10 U	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	5	4 U	4 U	-	-	-	-	-	4 U	4 U	4 U	4 U	4 U	4 U	963
Chromium	24000 †	10 U	10 U	-	-	-	-	-	10 U	10 U	10 U	10 U	10 U	10 U	994.1
Copper	640	10 U	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Lead	15	2.5	1 U	-	-	-	-	-	1.7	1 U	1 U	1.2	1 U	1 U	320
Mercury	2	0.5 U	0.5 U	-	-	-	-	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.06
Nickel	320	20 U	20 U	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	80	5 U	5 U	-	-	-	-	-	5 U	5 U	5 U	5 U	5 U	5 U	1060
Silver	80	10 U	10 U	-	-	-	-	-	10 U	10 U	10 U	10 U	10 U	10 U	842
Thallium	0.16	5 U	5 U	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	4800	25 U	25 U	-	-	-	-	-	-	-	-	-	-	-	-
Polychlorinated Biphenyls (PCBs)															
PCB-aroclor 1016	1.1	0.045 U	-	-	-	0.067 U	0.061 U	0.052 U	0.066 U	0.063 U	0.048 U	0.074 U	-	0.077 U	-
PCB-aroclor 1221	-	0.045 U	-	-	-	0.067 U	0.061 U	0.052 U	0.066 U	0.063 U	0.048 U	0.074 U	-	0.077 U	-
PCB-aroclor 1232	-	0.045 U	-	-	-	0.067 U	0.061 U	0.052 U	0.066 U	0.063 U	0.048 U	0.074 U	-	0.077 U	-
PCB-aroclor 1242	0.044	0.045 U	-	-	-	0.067 U	0.061 U	0.052 U	0.066 U	0.063 U	0.048 U	0.074 U	-	0.077 U	-
PCB-aroclor 1248	-	0.045 U	-	-	-	0.067 U	0.061 U	0.052 U	0.066 U	0.063 U	0.048 U	0.074 U	-	0.077 U	-
PCB-aroclor 1254	-	0.045 U	-	-	-	0.067 U	0.061 U	0.052 U	0.066 U	0.063 U	0.048 U	0.074 U	-	0.077 U	-
PCB-aroclor 1260	0.044	0.045 U	-	-	-	0.067 U	0.061 U	0.052 U	0.066 U	0.063 U	0.048 U	0.074 U	-	0.077 U	-
Volatile Organic Compounds (VOCs)															
1,1,1,2-Tetrachloroethane	1.7	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
1,1,1-Trichloroethane	200	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.22	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
1,1,2-Trichloroethane	0.77	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
1,1-Dichloroethane	7.7	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
1,1-Dichloroethene	-	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
1,1-Dichloropropene	-	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
1,2,3-Trichlorobenzene	-	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1.4 U	270 U	0.27 U	1 U	1 U

Sample Location		H-3-16	H-667p-15	H-667p-15	H-691p-16	H-11-18	H-14-18	H-15-18	H-16-18	H-17-18	H-18-18	H-19-18	H-20-18	H-21-18	H-21-18 ‡
Grab or MW Sample	Screening	Grab	MW	MW	MW	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
1,2,3-Trichloropropane	0.0015	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
1,2,4-Trichlorobenzene	1.5	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	6.9
1,2,4-Trimethylbenzene	80	**0.44**	-	-	-	0.2 U	0.2 U	0.2 U	**3300**	**370**	**63**	**7000**	**4.5**	**100**	**17**
1,2-Dibromo-3-chloropropane	0.055	1 U	-	-	-	1 U	1 U	1 U	50 U	50 U	5 U	1300 U	1.3 U	5 U	1 U
1,2-Dichlorobenzene	720	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
1,2-Dichloroethane (EDC)	5	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	**19**	1 U	1 U
1,2-Dichloropropane	1.2	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
1,3,5-Trimethylbenzene	80	**0.3**	-	-	-	0.2 U	0.2 U	0.2 U	**910**	**100**	**16**	**2100**	**1.8**	**23**	**4.6**
1,3-Dichlorobenzene	-	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
1,3-Dichloropropane	-	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
1,4-Dichlorobenzene	8.1	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
2,2-Dichloropropane	-	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
2-Butanone	-	5 U	-	-	-	5 U	5 U	5 U	250 U	250 U	25 U	5000 U	**10**	25 U	
2-Chloroethylvinylether	-	1 U	-	-	-	1 U	1 U	1 U	50 U	50 U	5 U	1000 U	1 U	7 U	
2-Chlorotoluene	160	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
2-Hexanone	40	2 U	-	-	-	2 U	2 U	2 U	100 U	100 U	10 U	2000 U	2 U	10 U	
4-Chlorotoluene	-	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
Acetone	7200	**6.5**	-	-	-	5 U	**9.7**	**5**	250 U	250 U	25 U	5000 U	**160**	37 U	
Bromobenzene	64	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
Bromochloromethane	-	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	
Bromodichloromethane	0.71		-	-	-										1 U
Bromoform	5.5	1 U	-	-	-	1 U	1 U	1 U	50 U	50 U	5 U	1300 U	1.3 U	5 U	1 U
Bromomethane	11	0.2 U	-	-	-	0.29 U	0.29 U	0.29 U	10 U	10 U	1 U	260 U	0.26 U	1.3 U	1 U
Carbon Disulfide	800	0.2 U	-	-	-	0.28 U	0.28 U	0.28 U	10 U	10 U	1 U	200 U	0.2 U	1 U	
Carbon Tetrachloride	0.63	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
CFC-11	-	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	
CFC-12	-	0.2 U	-	-	-	0.29 U	0.29 U	0.29 U	10 U	10 U	1 U	200 U	0.2 U	1 U	
Chlorobenzene	160	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	**0.23**	1 U	1 U
Chloroethane	-	1 U	-	-	-	1 U	1 U	1 U	50 U	50 U	5 U	1000 U	1 U	5 U	1 U
Chloroform	1.4	**8.3**	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
Chloromethane	-	1 U	-	-	-	1 U	1 U	1 U	50 U	50 U	5 U	1000 U	1 U	5 U	1 U
Cis-1,2-Dichloroethene	-	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
Cis-1,3-Dichloropropene	0.44	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	**7.3**
Dibromochloromethane	0.52	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
Dibromomethane	-	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
Dichlorobromomethane	-	**1**	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	
Ethylene dibromide	0.01	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	0.01 U
Hexachlorobutadiene	0.56	0.2 U	-	-	-	1 U	1 U	1 U	10 U	10 U	5 U	200 U	0.2 U	5 U	1 U
Isopropylbenzene	-	**0.25**	-	-	-	0.2 U	0.2 U	0.2 U	**170**	**43**	**4**	**420**	**15**	**7.7**	**1.1**
Methyl Iodide	-	1 U	-	-	-	1.8 U	1.8 U	1.8 U	50 U	50 U	5 U	1000 U	1 U	6.5 U	
Methyl Isobutyl Ketone	640	2 U	-	-	-	2 U	2 U	2 U	100 U	100 U	10 U	2000 U	2 U	10 U	
Methyl t-Butyl Ether (MTBE)	20	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	5 U
Methylene Chloride	5	1 U	-	-	-	1 U	1 U	1 U	50 U	50 U	5 U	1000 U	1 U	5 U	1 U
Naphthalene	160	1 U	-	-	-	1 U	1 U	1 U	**970**	**95**	**12**	1400 U	1.4 U	**28**	
n-Butylbenzene	400	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	**87**	**17**	**1.2**	**520**	**2.1**	1 U	1 U
n-Propylbenzene	800	**0.37**	-	-	-	0.2 U	0.2 U	0.2 U	**540**	**110**	**9.9**	**830**	**30**	**15**	2.2
p-Isopropyltoluene	-	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	**16**	10 U	1 U	200	**26**	**2.4**	1 U
sec-Butylbenzene	800	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	**24**	10 U	1 U	200 U	**2**	**1.8**	1 U
Styrene	1600	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
tert-Butylbenzene	800	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
Tetrachloroethene (PCE)	5	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
Trans-1,2-Dichloroethene	-	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
Trans-1,3-Dichloropropene	0.15	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
Trichloroethene	-	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	1 U
Trichlorofluoromethane	2400		-	-	-										1 U
Vinyl Acetate	8000	1 U	-	-	-	1 U	1 U	1 U	50 U	50 U	5 U	1000 U	1 U	5 U	
Vinyl Chloride	0.2	0.2 U	-	-	-	0.2 U	0.2 U	0.2 U	10 U	10 U	1 U	200 U	0.2 U	1 U	0.2 U
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)			-	-	-										
Benz[a]anthracene	-	**0.024**	-	-	-	**0.065**	0.013 U	0.01 U	**0.027**	0.013 U	0.012 U	**0.025**	0.027 U	0.019 U	0.1 U
Benzo(a)pyrene	0.1	0.01 U	-	-	-	**0.022**	0.013 U	0.01 U	**0.016**	0.013 U	0.012 U	**0.02**	0.027 U	0.019 U	0.1 U
Benzo(b)fluoranthene	-	**0.082**	-	-	-	**0.033**	0.013 U	0.01 U	**0.012**	0.013 U	0.012 U	**0.029**	0.071 U	0.32 U	0.1 U

Sample Location		H-3-16	H-667p-15	H-667p-15	H-691p-16	H-11-18	H-14-18	H-15-18	H-16-18	H-17-18	H-18-18	H-19-18	H-20-18	H-21-18	H-21-18 ‡
Grab or MW Sample	Screening	Grab	MW	MW	MW	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Benzo(k)fluoranthene	-		-	-	-										0.1 U
Benzo(j,k)fluoranthene	-	**0.023**	-	-	-	0.014 U	0.013 U	0.01 U	0.011 U	0.013 U	0.012 U	0.016 U	0.027 U	0.019 U	
Chrysene	-	**0.012**	-	-	-	**0.083**	0.013 U	0.01 U	**0.024**	0.013 U	0.012 U	**0.035**	0.027 U	0.019 U	0.1 U
Dibenzo(a,h)anthracene	-	0.01 U	-	-	-	0.014 U	0.013 U	0.01 U	0.011 U	0.013 U	0.012 U	0.016 U	0.027 U	0.019 U	0.1 U
Indeno(1,2,3-cd)pyrene	-	0.01 U	-	-	-	**0.016**	0.013 U	0.01 U	0.011 U	0.013 U	0.012 U	**0.017**	0.027 U	0.019 U	0.1 U
Total cPAH TEQ ¥	0.1	**0.03382**	-	-	-	**0.0736**	0.00917 U	0.00705 U	**0.03114**	0.00917 U	0.00846 U	**0.03275**	0.0212 U	0.0284 U	0.0755 U
Semi-Volatile Organic Compounds (SVOCs)															
1,2,4-Trichlorobenzene	1.5	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	1 U
1,2-Dichlorobenzene	720	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	1 U
1,2-Dinitrobenzene	1.6	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-
1,2-Diphenylhydrazine	0.11	1 U	-	-	-	1.4 U	1.3 U	1 U	1.2 U	1.3 U	1.2 U	1.6 U	2.7 U	3.8 U	-
1,3-Dichlorobenzene	-	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	1 U
1,3-Dinitrobenzene	1.6	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-
1,4-Dichlorobenzene	8.1	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	1 U
1-Methylnaphthalene	1.5	**0.13**	-	-	-	0.14 U	0.13 U	0.1 U	**72**	**16**	**4**	**21**	**1.8**	**1.5**	**0.12**
2,3,4,6-Tetrachlorophenol	480	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	1 U
2,3,5,6-Tetrachlorophenol	-	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-
2,3-Dichloroaniline	-	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-
2,4,5-Trichlorophenol	800	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	5 U
2,4,6-Tribromophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5 U
2,4,6-Trichlorophenol	800	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	5 U
2,4-Dichlorophenol	24	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	5 U
2,4-Dimethylphenol	160	1 U	-	-	-	1.4 U	1.3 U	1 U	**9.6**	1.3 U	2.7	1.6 U	2.7 U	1.9 U	5 U
2,4-Dinitrophenol	32	5 U	-	-	-	7.2 U	6.5 U	5.1 U	5.4 U	6.7 U	6.2 U	7.8 U	14 U	9.4 U	5 U
2,4-Dinitrotoluene	0.28	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-
2,6-Dichlorophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5 U
2,6-Dinitrotoluene	0.058	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	
2-Chloronaphthalene	-	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	1 U
2-Chlorophenol	40	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	1 U
2-Methylnaphthalene	32	**0.23**	-	-	-	0.14 U	0.13 U	0.1 U	**150**	**27**	**6.7**	**48**	**2.5**	**2.4**	**0.1**
2-Nitroaniline	160	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	
2-Nitrophenol	-	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	5 U
3,3'-Dichlorobenzidine	0.19	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	
3-Methylphenol and 4-Methylphenol coelution	-	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	1 U
3-Nitroaniline	-	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-
4,6-Dinitro-2-methylphenol	-	5 U	-	-	-	7.2 U	6.5 U	5.1 U	5.4 U	6.7 U	6.2 U	7.8 U	14 U	9.4 U	-
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1 U
4-Chloro-3-methylphenol	-	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	5 U
4-Chloroaniline	0.22	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-
4-Chlorophenyl-phenylether	-	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-
4-Nitroaniline	64	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-
4-Nitrophenol	-	5 U	-	-	-	7.2 U	6.5 U	5.1 U	5.4 U	6.7 U	6.2 U	7.8 U	14 U	9.4 U	5 U
Acenaphthene	960	0.1 U	-	-	-	0.14 U	0.13 U	**0.11**	**0.23**	0.13 U	0.12 U	0.16 U	0.27 U	0.19 U	0.1 U
Acenaphthylene	-	0.1 U	-	-	-	**0.17**	0.13 U	0.1 U	0.11 U	0.13 U	0.12 U	0.16 U	0.27 U	0.19 U	0.1 U
Aniline	7.7	5 U	-	-	-	7.2 U	6.5 U	5.1 U	5.4 U	6.7 U	6.2 U	7.8 U	14 U	9.4 U	-
Anthracene	4800	0.1 U	-	-	-	**0.53**	0.13 U	0.1 U	0.11 U	0.13 U	0.12 U	0.16 U	0.27 U	0.19 U	0.1 U
Benzene, 1,4-Dinitro-	-	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-
Benzidine	0.00038	5 U	-	-	-	7.2 U	6.5 U	5.1 U	5.4 U	6.7 U	6.2 U	7.8 U	14 U	9.4 U	-
Benzo(ghi)perylene	-	0.01 U	-	-	-	**0.02**	0.013 U	0.01 U	**0.016**	0.013 U	0.012 U	**0.022**	0.027 U	0.019 U	0.1 U
Benzyl alcohol	800	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-
bis(2-Chloroethoxy)methane	-	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	1 U
bis(2-Chloroethyl)ether	0.04	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-
bis(2-Chloroisopropyl)ether	-	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-
Bis(2-ethylhexyl) ether	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1 U
bis(2-Ethylhexyl)phthalate	6.3	**5.7**	-	-	-	**2.7**	1.3 U	1 U	**17**	6.7 U	6.2 U	**14**	14 U	**24**	-
Butyl benzyl phthalate	46	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-
Carbazole	-	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-
Di(2-ethylhexyl) adipate	73	1 U	-	-	-	2.9 U	2.6 U	2 U	5.4 U	6.7 U	6.2 U	7.8 U	14 U	9.4 U	-
Dibenzofuran	16	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-
Diethylphthalate	13000	**1.3**	-	-	-	**3.3**	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	5 U
Dimethylphthalate	-	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	1 U

Sample Location		H-3-16	H-667p-15	H-667p-15	H-691p-16	H-11-18	H-14-18	H-15-18	H-16-18	H-17-18	H-18-18	H-19-18	H-20-18	H-21-18	H-21-18 ‡
Grab or MW Sample	Screening	Grab	MW	MW	MW	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Di-n-butylphthalate	-	**9.3**	-	-	-	**22**	**6.3**	**4.7**	5.4 U	6.7 U	6.2 U	7.8 U	14 U	9.4 U	1 U
Di-n-octylphthalate	-	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	5 U
Fluoranthene	640	0.1 U	-	-	-	**0.54**	0.13 U	0.1 U	0.11 U	0.13 U	0.12 U	0.16 U	0.27 U	0.19 U	0.1 U
Fluorene	640	0.1 U	-	-	-	**0.16**	0.13 U	0.1 U	**0.33**	0.13 U	0.12 U	**0.17**	0.27 U	0.19 U	0.1 U
Hexachlorobenzene	0.055	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	1 U
Hexachlorobutadiene	0.56	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	5 U
Hexachlorocyclopentadiene	48	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	1 U
Hexachloroethane	1.1	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	1 U
Isophorone	46	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-
Naphthalene	160	**0.25**	-	-	-	0.14 U	0.13 U	0.1 U	**570**	**98**	**33**	**280**	**1.1**	**8.5**	**0.52**
Nitrobenzene	16	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-
n-Nitrosodimethylamine	0.00086	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-
N-Nitrosodi-n-propylamine	-	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-
n-Nitrosodiphenylamine	18	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	1 U
o-Cresol	400	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	1 U
PBDE-003	-	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-
Pentachlorophenol	0.22	5 U	-	-	-	7.2 U	6.5 U	5.1 U	5.4 U	6.7 U	6.2 U	7.8 U	14 U	9.4 U	5 U
Phenanthrene	-	**0.11**	-	-	-	**1.2**	0.13 U	0.1 U	**0.32**	0.13 U	0.12 U	**0.23**	0.27 U	0.19 U	0.1 U
Phenol	2400	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	1 U
Pyrene	480	0.1 U	-	-	-	**0.54**	0.13 U	**0.15**	0.11 U	0.13 U	0.12 U	0.16 U	**0.28**	0.19 U	0.1 U
Pyridine	8	1 U	-	-	-	1.4 U	1.3 U	1 U	1.1 U	1.3 U	1.2 U	1.6 U	2.7 U	1.9 U	-

Sample Location	Screening Level *	H-21-18 ‡	SB-2-19	SB-3-19	SB-4-19	SB-4-19 ‡	SB-6-19	SB-7-19	SB-8-19	SB-9-19	MW-1-19	MW-2-19	MW-3-19	MW-4-19	MW-4-19 ‡	MW-5-20	RW-1-19
Grab or MW Sample		Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	MW	MW	MW	MW	MW	MW	MW
Date Sampled		12/6/18	8/24/19	9/23/19	9/23/19	9/23/19	8/25/19	9/27/19	9/25/19	8/25/19	10/17/19	10/17/19	10/17/19	10/17/19	10/17/19	1/29/20	10/17/19
Total Petroleum Hydrocarbons																	
Gasoline Range Organics	800**	1800	88000	100 U	100 U	400 U	51000	18000	400 U	33000	100 U	100 U	1400	210	190	100 U	33000
Diesel Range Organics	500	-	5700	250 U	-	-	3600	29000	-	7400	270 U	260 U	630	280 U	260 U	-	4300
Lube Oil	500	-	480 U	400 U	-	-	480 U	7900	-	400 U	440 U	420 U	660	440 U	420 U	-	710
Mineral spirits	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kerosene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)																	
Benzene	5	28	2600	0.2 U	0.2 U	0.2 U	3400	410	0.2 U	19	0.2 U	0.2 U	98	0.2 U	0.2 U	0.20 U	8700
Toluene	1000	24	1200	1 U	1 U	1 U	430	20 U	1 U	20 U	1 U	1 U	4 U	1 U	1 U	1.0 U	500 U
Ethylbenzene	700	78	3100	0.2 U	0.2 U	0.2 U	2000	25	0.2 U	140	0.2 U	0.2 U	24	0.23	0.22	0.20 U	2300
m, p-Xylene	1600	210	13000	0.4 U	0.4 U	0.4 U	7000	8 U	0.4 U	350	0.4 U	0.4 U	9.3	0.55	0.41	0.40 U	3400
o-Xylene	1600	74	4500	0.2 U	0.2 U	0.2 U	1800	4 U	0.2 U	33	0.2 U	0.2 U	1.1	0.37	0.3	0.20 U	720
Xylenes §	1000	284	17500	0.4 U	0.4 U	0.4 U	8800	8 U	0.4 U	383	0.4 U	0.4 U	10.4	0.92	0.71	0.60 U	4120
Total Metals																	
Antimony	6.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	5	-	47	200	-	-	75	92	-	59	3.3 U	3.3 U	17	5.9	6.7	-	100
Barium	3200	-	1000	8200	-	-	850	850	-	2100	28 U	28 U	130	45	44	-	120
Beryllium	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	5	-	4.4 U	4.4 U	-	-	4.4 U	4.4 U	-	5.1	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	-	4.4 U
Chromium	24000 †	-	540	2300	-	-	280	290	-	1100	11 U	11 U	29	11 U	11 U	-	11 U
Copper	640	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	15	-	35	230	-	-	30	72	-	230	1.1 U	1.1 U	5.3	1.1 U	1.1 U	-	3.1
Mercury	2	-	0.5 U	0.83	-	-	0.5 U	0.5 U	-	1.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U
Nickel	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	80	-	7.3	15	-	-	5.6 U	5.6 U	-	19	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	-	5.6 U
Silver	80	-	11 U	11 U	-	-	11 U	11 U	-	11 U	11 U	11 U	11 U	11 U	11 U	-	11 U
Thallium	0.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	4,800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Metals																	
Antimony	6.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	5	-	8	3.4	-	-	32	19	-	5.1	3 U	3 U	7.4	5.1	6.7	-	88
Barium	3200	-	75	29	-	-	60	65	-	69	25 U	25 U	46	42	40	-	70
Beryllium	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	5	-	4 U	4 U	-	-	4 U	4 U	-	4 U	4 U	4 U	4 U	4 U	4 U	-	4 U
Chromium	24000 †	-	10 U	10 U	-	-	10 U	10 U	-	10 U	10 U	10 U	10 U	10 U	10 U	-	10 U
Copper	640	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	15	-	1 U	1 U	-	-	1 U	1 U	-	1 U	1 U	1 U	1 U	1 U	1 U	-	1 U
Mercury	2	-	0.5 U	0.5 U	-	-	0.5 U	0.5 U	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U
Nickel	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	80	-	5 U	5 U	-	-	5 U	5 U	-	5 U	5 U	5 U	5 U	5 U	5 U	-	5 U
Silver	80	-	10 U	10 U	-	-	10 U	10 U	-	10 U	10 U	10 U	10 U	10 U	10 U	-	10 U
Thallium	0.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	4800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polychlorinated Biphenyls (PCBs)																	
PCB-aroclor 1016	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB-aroclor 1221	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB-aroclor 1232	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB-aroclor 1242	0.044	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB-aroclor 1248	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB-aroclor 1254	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB-aroclor 1260	0.044	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (VOCs)																	
1,1,1,2-Tetrachloroethane	1.7	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	200	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	0.22	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	0.77	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	7.7	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloropropene	-	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichlorobenzene	-	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Sample Location		H-21-18 ‡	SB-2-19	SB-3-19	SB-4-19	SB-4-19 ‡	SB-6-19	SB-7-19	SB-8-19	SB-9-19	MW-1-19	MW-2-19	MW-3-19	MW-4-19	MW-4-19 ‡	MW-5-20	RW-1-19
Grab or MW Sample	Screening	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	MW	MW	MW	MW	MW	MW	MW
1,2,3-Trichloropropane	0.0015	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	1.5	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	80	93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane	0.055	5 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	720	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane (EDC)	5	1 U	100 U	0.2 U	-	-	100 U	4 U	-	40 U	1 U	1 U	4 U	1 U	1 U	-	500 U
1,2-Dichloropropane	1.2	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	80	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropane	-	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	8.1	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,2-Dichloropropane	-	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone	-	25 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethylvinylether	-	7 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorotoluene	160	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	40	10 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorotoluene	-	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	7200	37 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	64	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromochloromethane	-	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	0.71		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	5.5	5 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	11	1.3 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Disulfide	800	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	0.63	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CFC-11	-	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CFC-12	-	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	160	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	-	5 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	1.4	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane	-	5 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cis-1,2-Dichloroethene	-	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cis-1,3-Dichloropropene	0.44	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	0.52	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	-	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorobromomethane	-	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylene dibromide	0.01	1 U	0.01 U	0.01 U	-	-	0.01 U	0.01 U	-	0.01 U	0.0097 U	0.0096 U	0.0096 U	0.0097 U	0.0097 U	-	0.0095 U
Hexachlorobutadiene	0.56	5 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Iodide	-	6.5 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Isobutyl Ketone	640	10 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl t-Butyl Ether (MTBE)	20	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	5	5 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	160	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
n-Butylbenzene	400	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
n-Propylbenzene	800	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Isopropyltoluene	-	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
sec-Butylbenzene	800	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	1600	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	800	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene (PCE)	5	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trans-1,2-Dichloroethene	-	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trans-1,3-Dichloropropene	0.15	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	-	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	2400		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl Acetate	8000	5 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl Chloride	0.2	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)			-	-	-	-	-	-	-	-	-	-	-	-	-		-
Benz[a]anthracene	-		0.043	0.013 U	-	-	0.04 U	1.6	-	0.036 U	0.0095 U	0.01 U	0.011 U	0.01 U	0.01 U	-	0.01 U
Benzo(a)pyrene	0.1		0.027	0.013 U	-	-	0.04 U	0.74	-	0.036 U	0.0095 U	0.01 U	0.011 U	0.01 U	0.01 U	-	0.01 U
Benzo(b)fluoranthene	-		0.021	0.013 U	-	-	0.04 U	0.94	-	0.036 U	0.0095 U	0.01 U	0.011 U	0.01 U	0.01 U	-	0.01 U

Sample Location		H-21-18 ‡	SB-2-19	SB-3-19	SB-4-19	SB-4-19 ‡	SB-6-19	SB-7-19	SB-8-19	SB-9-19	MW-1-19	MW-2-19	MW-3-19	MW-4-19	MW-4-19 ‡	MW-5-20	RW-1-19
Grab or MW Sample	Screening	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	MW	MW	MW	MW	MW	MW	MW
Benzo(k)fluoranthene	-				-	-			-							-	
Benzo(j,k)fluoranthene	-		0.011 U	0.013 U	-	-	0.04 U	0.41 U	-	0.036 U	0.0095 U	0.01 U	0.011 U	0.01 U	0.01 U	-	0.01 U
Chrysene	-		0.031	0.013 U	-	-	0.04 U	1.8	-	0.036 U	0.0095 U	0.01 U	0.011 U	0.01 U	0.01 U	-	0.01 U
Dibenzo(a,h)anthracene	-		0.011 U	0.013 U	-	-	0.04 U	0.41 U	-	0.036 U	0.0095 U	0.01 U	0.011 U	0.01 U	0.01 U	-	0.01 U
Indeno(1,2,3-cd)pyrene	-		0.011 U	0.013 U	-	-	0.04 U	0.41 U	-	0.036 U	0.0095 U	0.01 U	0.011 U	0.01 U	0.01 U	-	0.01 U
Total cPAH TEQ ¥	0.1	-	0.00776 U	0.00917 U	-	-	0.0282 U	1.827	-	0.0254 U	0.0067 U	0.00705 U	0.00776 U	0.00705 U	0.00705 U	-	0.00705 U
Semi-Volatile Organic Compounds (SVOCs)																	
1,2,4-Trichlorobenzene	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	720	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dinitrobenzene	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	0.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dinitrobenzene	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	8.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-Methylnaphthalene	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,3,4,6-Tetrachlorophenol	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,3,5,6-Tetrachlorophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,3-Dichloroaniline	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Tribromophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	0.28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dichlorophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	0.058	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	0.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Methylphenol and 4-Methylphenol coelution	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	0.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl-phenylether	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	960	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aniline	7.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	4800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1,4-Dinitro-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	0.00038	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(ghi)perylene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzyl alcohol	800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroisopropyl)ether	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bis(2-ethylhexyl) ether	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	6.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzyl phthalate	46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbazole	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di(2-ethylhexyl) adipate	73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethylphthalate	13000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethylphthalate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Sample Location		H-21-18 ‡	SB-2-19	SB-3-19	SB-4-19	SB-4-19 ‡	SB-6-19	SB-7-19	SB-8-19	SB-9-19	MW-1-19	MW-2-19	MW-3-19	MW-4-19	MW-4-19 ‡	MW-5-20	RW-1-19
Grab or MW Sample	Screening	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	MW	MW	MW	MW	MW	MW	MW
Di-n-butylphthalate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octylphthalate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	640	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	640	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	0.055	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	0.56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isophorone	46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
n-Nitrosodimethylamine	0.00086	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
n-Nitrosodiphenylamine	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Cresol	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PBDE-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	0.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	2400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyridine	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All values reported in micrograms per liter unless otherwise noted.

Total cPAH TEQ calculated using half values for non-detects.

* Screening Levels are reported as the MTCA Method A cleanup levels, if established. Method B cleanup levels are shown if no Method A cleanup levels are established. The MTCA Method B cleanup levels shown are the lowest for either carcinogen or non-carcinogen, based on direct contact.

** MTCA Method A cleanup level for unrestricted land use for gasoline range organics is 800 µg/L is no benzene present or 1000 µg/L if benzene is present.

† Cleanup level for trivalent chromium.

‡ Sample collected and analyzed as a field duplicate or split sample.

¥ Total cPAH TEQ calculated using half values for non-detects.

§ Calculated by summing detection of m,p-xylene and o-xylene. Reported as highest of non-detected values if no detects.

Shaded values indicate the detection exceeded regulatory criteria.

MTCA = Model Toxics Control Act; TEQ = toxic equivalent concentration; U = analyte not detected at or above the laboratory reporting limit, reported as less than the reporting limit

Sample Location		**2209-Outdoor**	**2209-Indoor**	**SG-2-19-10112019**
Sample Description	**Screening Level**	**Outdoor air sampled from on the northwest corner of the garage roof.**	**Indoor air sampled from inside garage about 4.5 feet above the floor.**	**Soil vapor sampled from monitoring point SG-2-19 located 5 feet bgs adjacent to the Montlake Market building.**
Air Results *				
Gasoline	-	**71.3**	**62.1**	-
Benzene	**0.32**	**0.954**	**1.09**	-
Corrected Benzene †	**0.32**	-	**0.136**	-
Ethylbenzene	**460**	1.74 U	1.74 U	-
m, p-Xylene	**46** ‡	3.47 U	3.47 U	-
o-Xylene	**46** ‡	1.74 U	1.74 U	-
Toluene	**2300**	**1.91**	**2.1**	-
Sub-Slab Soil Gas Results **				
Benzene	**11**	-	-	0.96 U
Ethylbenzene	**15000**	-	-	1.3 U
m, p-Xylene	**1500** ‡	-	-	2.6 U
o-Xylene	**1500** ‡	-	-	1.3 U
Toluene	**76000**	-	-	57 U
APH EC5-8 aliphatics	-	-	-	**140**
APH EC9-12 aliphatics	-	-	-	**290**
APH EC9-10 aromatics	-	-	-	75 U
Total Petroleum Hydrocarbons ¥	**4700**			**430**
Naphthalene	**2.5**	-	-	0.79 U

All values reported in micrograms per cubic meter.

* Screening levels for indoor air are reported as the lower of the two values: (1) Indoor Air Cleanup Level, Method B, noncancer, and (2) Indoor Air Cleanup Level, Method B, cancer. Values are provided in Washington State Department of Ecology's Cleanup Levels and Risk Calculator, Revised in January 2020, available: https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Contamination-clean-up-tools/CLARC/Data-tables.

** Screening levels for soil gas samples are reported as the lower of the two values: (1) Sub-slab Soil Gas Screening Level, Method B, noncancer, and (2) Sub-slab Soil Gas Screening Level, cancer. Values are provided in Washington State Department of Ecology's Cleanup Levels and Risk Calculator, Revised in January 2020, available: https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Contamination-clean-up-tools/CLARC/Data-tables.

† Outdoor air benzene concentrations were subtracted from indoor air concentrations in accordance with Washington State Department of Ecology's Guidance Evaluating Soil Vapor Intrusion in Washington State, Revised April 2018.

‡ Screening level is for total xylenes. Screening level for *m, o,* and *p* isomers of xylene is not established and the isomers are compared to total xylene levels.

¥ Total Petroleum Hydrocarbons calculated by summing detections of APHs.

Shaded values indicate the detection exceeded regulatory criteria.

APH = air-phase hydrocarbon; bgs = below ground surface; mg/L = milligrams per liter; MTCA = Model Toxics Control Act; TCLP = Toxicity Characteristic Leaching Procedure; U = analyte not detected at or above the laboratory reporting limit, reported as less than the reporting limit

Document Path: T:\21-1\20624_SR_520_Eastside\AV_mxd\ENVI\ML_ProposedExplorationPlan_EX-3_rev.mxd

MW-5-20
125ft NW
No Soil
Exceedances

H-17-18						
Depth	TPH-G	B	T	E	X	N
10-11.5'	180	0.098	ND	0.33	ND	0.023
10-11.5'	44	0.084	ND	0.65	2.2	0.21
20-21.5'	9.3	0.33	ND	0.17	0.36	0.16

H-4-16					
Depth	TPH-G	B	E	X	N
3'	ND	ND	NA	NA	NA
6'	ND	0.024	NA	NA	NA
8.5'	ND	0.045	NA	NA	NA
11'	ND	0.026	NA	NA	NA
16'	69	ND	NA	NA	1.7
18.5'	30	0.13	0.76	2.28	NA
19.9'	99	0.35	NA	2.79	NA
25.4'	ND	0.092	NA	NA	NA

SB-2-19*					
Depth	TPH-G	B	T	E	X
25'	37	0.39	0.58	2.2	13.0
30'	160	0.46	ND	0.81	5.2

SB-9-19					
Depth	TPH-G	B	T	E	X
20'	410	ND	ND	0.077	ND

SB-6-19					
Depth	TPH-G	B	T	E	X
16.5'	21	0.89	0.27	0.57	3.23

H-3-16	
Depth	B
3'	0.006
6'	ND
8.5'	0.038

SB-5-19*					
Depth	TPH-G	B	T	E	X
12.5'	300	0.35	ND	17	3.5

H-16-18						
Depth	TPH-G	B	T	E	X	N
5-6.5'	11	150	ND	ND	ND	NA
10-11.5'	900	5	0.48	34	1.8	0.16
10-11.5'	15	1.4	ND	1.8	ND	0.099
15-16.5'	58	0.98	0.081	2.8	2	NA
15-16.5'	130	0.5	ND	2.6	3.6	1.8
20'	1600	1.2	0.53	15	51	4.6
25-26.5'	41	96	ND	490	820	NA
25-26.5'	17	0.17	ND	0.91	2.34	0.45

H-20-18						
Depth	TPH-G	B	T	E	X	N
10-11.5'	8.8	1.1	0.088	0.34	0.15	NA
10-11.5'	ND	0.93	0.028	0.034	0.0261	ND
20-21.5'	ND	ND	ND	ND	ND	NA

RW-1-19					
Depth	TPH-G	B	T	E	X
20'	310	2.2	ND	5.4	2.2

H-19-18								
Depth	TPH-G	B	T	E	X	N	TPH-L	cPAHs
5-6.5'	3100	0.27	ND	2.7	23.8	4.4	6000	0.115
15-16.5'	5600	1.3	7.3	17	80	11	82	ND
15-16.5'	NA	ND	ND	0.19	0.78	NA	ND	NA
19.5'	NA	ND	ND	0.068	0.21	NA	ND	NA
20-21.5'	NA	ND	ND	0.15	0.65	NA	ND	NA
25-26.5'	ND	0.005	0.017	0.023	0.123	0.0063	ND	ND

SB-7-19					
Depth	TPH-G	B	T	E	X
15'	330	0.06	ND	ND	ND

Montlake Boulevard
E Lake Washington Blvd
E North St
SR 520 Eastbound On Ramp
SR 520 Eastbound Off Ramp
East Montlake Pl
22nd
East Roanoke Street
E Roanoke St
Fueling Canopy
Underground Storage Tanks
Fueling Canopy
Northwest Automotive Inc.
Montlake Boulevard Market

H-653-13, H-651-13, H-9-17, H-8-17, SB-9-19, H-691p-16, MW-3-19, H-7-17, H-650-13, SB-2-19, H-3-16, H-4-16, SB-6-19, H-6-17, H-17-18, H-16-18, RW-1-19, SB-5-19, H-5-16, MW-4-19, H-20-18, H-19-18, H-2-16, SB-7-19, H-15-18, SB-3-19, MW-1-19, H-18-18, SG-1-19, SG-2-19, SB-8-19, H-21-18, MW-2-19, SB-4-19, H-1-16, H-14-18, H-13-18, H-11-18, H-12-18

LEGEND

MTCA Level Exceedance

No MTCA Level Exceedance

If no exceedances at a boring/ monitoring well, no data added

EXPLORATIONS

Soil Borings

Groundwater Monitoring Well

Soil Gas Probes

King County Parcel Boundary
Public Right of Way Limit

Constituent	MTCA Cleanup Level (mg/kg)
TPH-Gasoline (TPH-G)	30
Benzene (B)	0.03
Toluene (T)	7
Ethylbenzene (E)	6
Xylenes (X)	9
Naphthalenes (N)	5
TPH-Lube Oil (TPH-L)	2000
cPAHs	0.1
MTCA Exceedance	Exceedance If Shaded Green

NOTES
1. RW-1-19 advanced to 60 feet below ground surface to define vertical extent of impact.
2. NA = Not Analyzed
3. ND = Not Detected
4. RW = Recovery Well
5. * = Top of Till
6. TPH = Total Petroleum Hydrocarbons
7. MTCA = Model Toxics Control Act
8. cPAHs = Carcinogenic Polycyclic Aromatic Hydrocarbon

N W E S

0 30

Feet

Montlake Gas Station VCP
Remedial Investigation Report
2625 East Montlake Place East
Seattle, WA

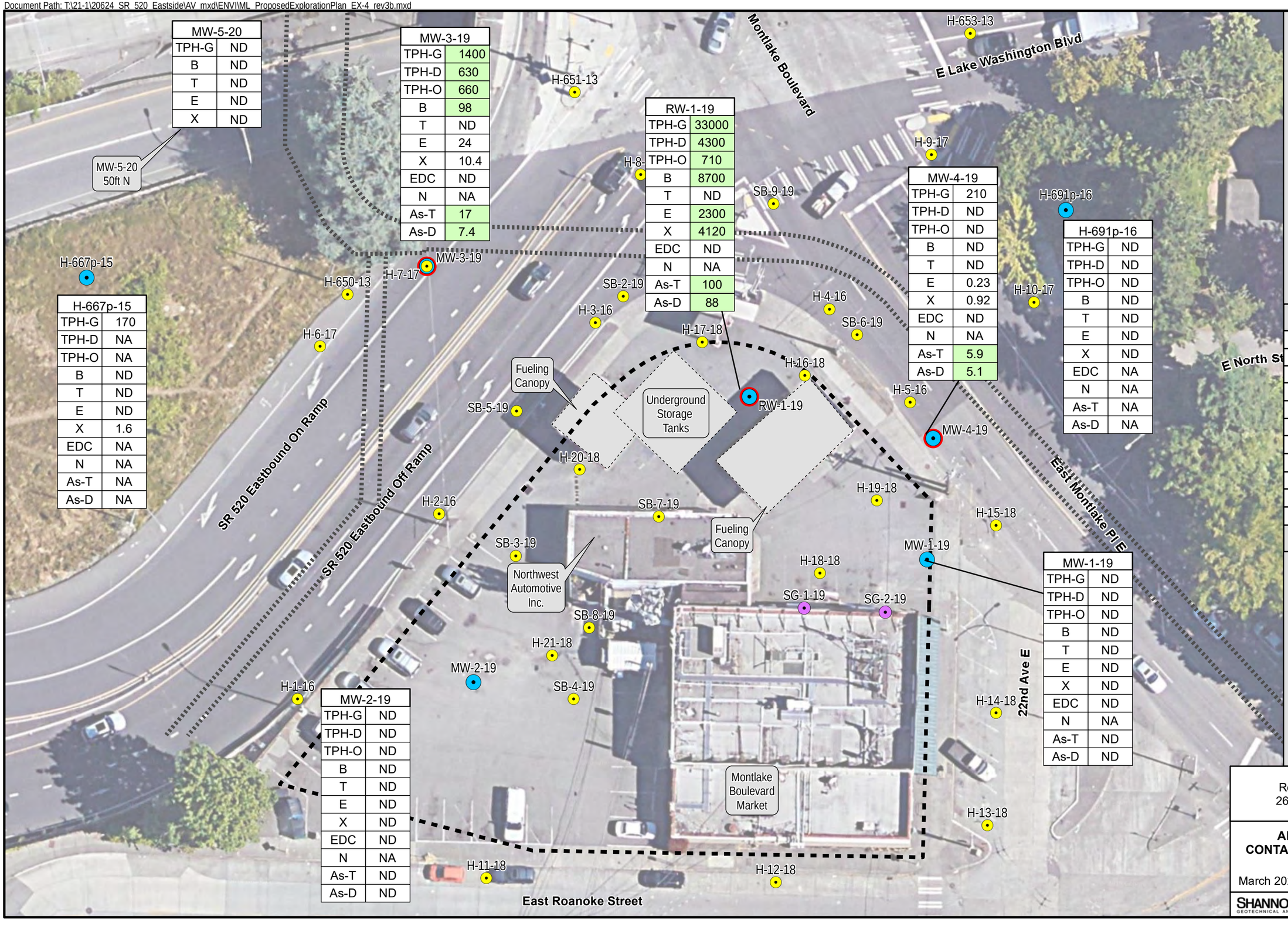
APPROXIMATE LIMITS OF CONTAMINATION IN SOIL

March 2020 21-1-22242-104

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

EXHIBIT 12

Document Path: T:\21-1\20624_SR_520_Eastside\AV_mxd\ENVI\ML_ProposedExplorationPlan_EX-4_rev3b.mxd



LEGEND

MTCA Level Exceedance

EXPLORATIONS

Soil Borings

Groundwater Monitoring Well

Soil Gas Probes

Existing Utility - Sewer Line

King County Parcel Boundary
Public Right of Way Limit

Constituent	MTCA Cleanup Level (mg/kg)
TPH-Gasoline (TPH-G)	800
TPH-Diesel (TPH-D)	500
TPH-Heavy Oil (TPH-O)	500
Benzene (B)	5
Toluene (T)	1000
Ethylbenzene (E)	700
Xylenes (X)	1000
1,2-Dichloroethane (EOC)	5
Total Naphthalenes (N)	160
Total Arsenic (As-T)	5
Dissolved Arsenic (As-D)	5
MTCA Exceedance	Exceedance If Shaded Green

NOTE
1. Cells are filled with compound-specific color when detected above the MTCA Cleanup Level. Compounds which are not detected are filled with white.
2. Xylenes are reported as the summation of m,p-xylene and o-xylene.
3. MTCA = Model Toxics Control Act
4. ND = Not Detected
5. NA = Not Applicable

N W E S

0 30

Feet

Montlake Gas Station VCP
Remedial Investigation Report
2625 East Montlake Place East
Seattle, WA

APPROXIMATE LIMITS OF CONTAMINATION IN GROUNDWATER (MONITORING WELL)

March 2020 21-1-22242-104

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

EXHIBIT 13

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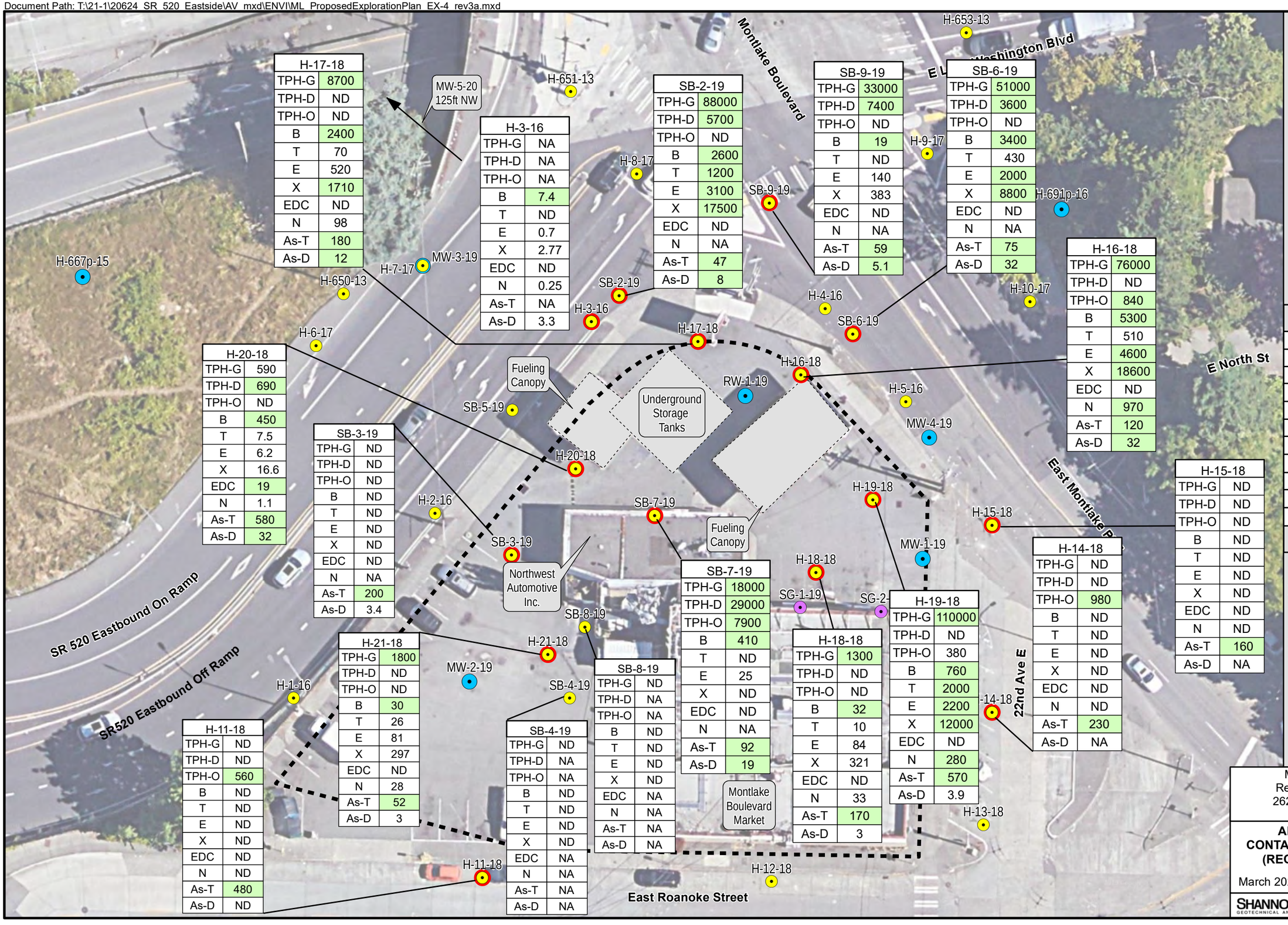


H-17-18	
TPH-G	8700
TPH-D	ND
TPH-O	ND
B	2400
T	70
E	520
X	1710
EDC	ND
N	98
As-T	180
As-D	12

H-3-16	
TPH-G	NA
TPH-D	NA
TPH-O	NA
B	7.4
T	ND
E	0.7
X	2.77
EDC	ND
N	0.25
As-T	NA
As-D	3.3

SB-2-19	
TPH-G	88000
TPH-D	5700
TPH-O	ND
B	2600
T	1200
E	3100
X	17500
EDC	ND
N	NA
As-T	47
As-D	8

SB-9-19	
TPH-G	33000
TPH-D	7400
TPH-O	ND
B	19
T	ND
E	140
X	383
EDC	ND
N	NA
As-T	59
As-D	5.1

SB-6-19	
TPH-G	51000
TPH-D	3600
TPH-O	ND
B	3400
T	430
E	2000
X	8800
EDC	ND
N	NA
As-T	75
As-D	32

H-16-18	
TPH-G	76000
TPH-D	ND
TPH-O	840
B	5300
T	510
E	4600
X	18600
EDC	ND
N	970
As-T	120
As-D	32

H-20-18	
TPH-G	590
TPH-D	690
TPH-O	ND
B	450
T	7.5
E	6.2
X	16.6
EDC	19
N	1.1
As-T	580
As-D	32

SB-3-19	
TPH-G	ND
TPH-D	ND
TPH-O	ND
B	ND
T	ND
E	ND
X	ND
EDC	ND
N	NA
As-T	200
As-D	3.4

H-15-18	
TPH-G	ND
TPH-D	ND
TPH-O	ND
B	ND
T	ND
E	ND
X	ND
EDC	ND
N	ND
As-T	160
As-D	NA

H-14-18	
TPH-G	ND
TPH-D	ND
TPH-O	980
B	ND
T	ND
E	ND
X	ND
EDC	ND
N	ND
As-T	230
As-D	NA

SB-7-19	
TPH-G	18000
TPH-D	29000
TPH-O	7900
B	410
T	ND
E	25
X	ND
EDC	ND
N	NA
As-T	92
As-D	19

H-18-18	
TPH-G	1300
TPH-D	ND
TPH-O	ND
B	32
T	10
E	84
X	321
EDC	ND
N	33
As-T	170
As-D	3

H-19-18	
TPH-G	110000
TPH-D	ND
TPH-O	380
B	760
T	2000
E	2200
X	12000
EDC	ND
N	280
As-T	570
As-D	3.9

H-21-18	
TPH-G	1800
TPH-D	ND
TPH-O	ND
B	30
T	26
E	81
X	297
EDC	ND
N	28
As-T	52
As-D	3

SB-8-19	
TPH-G	ND
TPH-D	NA
TPH-O	NA
B	ND
T	ND
E	ND
X	ND
EDC	NA
N	NA
As-T	NA
As-D	NA

SB-4-19	
TPH-G	ND
TPH-D	NA
TPH-O	NA
B	ND
T	ND
E	ND
X	ND
EDC	NA
N	NA
As-T	NA
As-D	NA

H-11-18	
TPH-G	ND
TPH-D	ND
TPH-O	560
B	ND
T	ND
E	ND
X	ND
EDC	ND
N	ND
As-T	480
As-D	ND

LEGEND

MTCA Level Exceedance

EXPLORATIONS

Soil Borings

Groundwater Monitoring Well

Soil Gas Probes

Existing Utility - Sewer Line

King County Parcel Boundary
Public Right of Way Limit

Constituent	MTCA Cleanup Level (ug/L)
TPH-Gasoline (TPH-G)	800
TPH-Diesel (TPH-D)	500
TPH-Heavy Oil (TPH-O)	500
Benzene (B)	5
Toluene (T)	1000
Ethylbenzene (E)	700
Xylenes (X)	1000
1,2-Dichloroethane (EOC)	5
Total Naphthalenes (N)	160
Total Arsenic (As-T)	5
Dissolved Arsenic (As-D)	5
MTCA Exceedance	Exceedance If Shaded Green

NOTE
1. Cells are filled with compound-specific color when detected above the MTCA Cleanup Level. Compounds which are not detected are filled with white.
2. Xylenes are reported as the summation of m,p-xylene and o-xylene.
3. MTCA = Model Toxics Control Act
4. TPH = Total Petroleum Hydrocarbons
5. ND = Not Detected
6. NA = Not Applicable

N W E S

0 30

Feet

Montlake Gas Station VCP
Remedial Investigation Report
2625 East Montlake Place East
Seattle, WA

APPROXIMATE LIMITS OF CONTAMINATION IN GROUNDWATER (RECONNAISSANCE SAMPLES)

March 2020 21-1-22242-104

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

EXHIBIT 14

Exhibit 15
SUMMARY OF COMPLETED INVESTIGATIONS

Investigation Location	Exploration Type	Date Completed	Exploration Logged By:	Total Depth Drilled (feet)	Ground Surface Elevation (feet)[1]	Northing (feet)[2]	Easting (feet)[2]	Drilling Method	Observation Well Installed	WAC Well ID	Well Monument Type[3]	Slug Tests Performed[4]	Well Diameter	Well Screen Interval (feet bgs)
SG-1-19	Gas Probe	9/24/2019	SWI[5]	15	60.38	238,192	1,277,884	Roto Sonic	X	BLU 432	F		1/4-inch	14.5 to 15.5
SG-2-19	Gas Probe	9/24/2015	SWI	5	59.63	238,191	1,277,913	Roto Sonic	X	NA	F		1/4-inch	4.5 to 5.5
H-667p-15	Well	1/28/2019	SWI	50.2	49.4	238,310	1,277,628	Advanced Casing	X	BHV 699	F		2-inch	11 to 19.5
H-691p-16	Well	3/15/2019	SWI	75.5	59.20	238,334	1,277,977	Advanced Casing	X	BIY 337	F		2-inch	15 to 25
MW-1-19	Well	9/24/2019	SWI	30.3	59.43	238,210	1,277,928	Roto Sonic	X	BLU 421	F		2-inch	11.7 to 26.7
MW-2-19	Well	9/23/2019	SWI	21.4	58.87	238,166	1,277,766	Roto Sonic	X	BLT 996	F		2-inch	10.5 to 20.5
MW-3-19	Well	8/26/2019	SWI	25	59.29	238,312	1,277,743	Roto Sonic	X	BLT 987	F		2-inch	10 to 25
MW-4-19	Well	8/25/2019	SWI	27.3	59.05	238,253	1,277,930	Roto Sonic	X	BLT 986	F	X	2-inch	17 to 27
MW-5-20	Well	1/21/2020	SWI	26.5	X	X	X	Roto Sonic	X	BLU 139	F		2-inch	10 to 15
RW-1-19	Well	9/26/2019	SWI	60.4	60.38	238,268	1,277,864	Roto Sonic	X	BLU 433	F	X	4-inch	14.5 to 29.5
H-1-16	Boring	10/6/2016	Innovex[6]	50	57.88	238,160	1,277,703	Mud Rotary						
H-2-16	Boring	10/7/2016	Innovex	24.5	58.09	238,226	1,277,754	Mud Rotary						
H-3-16	Boring	10/8/2016	Innovex	17.4	59.20	238,294	1,277,809	Mud Rotary						
H-4-16	Boring	10/8/2016	Innovex	29.2	59.17	238,299	1,277,893	Mud Rotary						
H-5-16	Boring	10/9/2016	Innovex	29.2	58.87	238,266	1,277,922	Mud Rotary						
H-6-17	Boring	10/23/2017	Innovex	50	57.12	238,285	1,277,711	Roto Sonic						
H-7-17	Boring	10/24/2017	Innovex	50	58.44	238,312	1,277,743	Roto Sonic						
H-8-17	Boring	10/25/2017	Innovex	50	60.97	238,347	1,277,826	Roto Sonic						
H-9-17	Boring	10/22/2017	Innovex	30	59.13	238,354	1,277,929	Roto Sonic						
H-10-17	Boring	10/22/2017	Innovex	30	58.72	238,301	1,277,966	Roto Sonic						
H-11-18	Boring	5/25/2018	Innovex	25	59.47	238,096	1,277,771	Roto Sonic						
H-12-18	Boring	5/17/2018	Innovex	20	59.28	238,095	1,277,874	Roto Sonic						
H-13-18	Boring	5/26/2018	Innovex	20	58.99	238,115	1,277,949	Roto Sonic						
H-14-18	Boring	5/26/2018	Innovex	30	58.69	238,155	1,277,952	Roto Sonic						
H-15-18	Boring	5/26/2018	Innovex	30	58.60	238,222	1,277,952	Roto Sonic						
H-16-18	Boring	12/3/2018	Innovex	25	59.78	238,275	1,277,884	Roto Sonic						
H-17-18	Boring	12/4/2018	Innovex	25	59.55	238,287	1,277,847	Roto Sonic						
H-18-18	Boring	12/5/2018	Innovex	25	60.02	238,205	1,277,889	Roto Sonic						
H-19-18	Boring	12/6/2018	Innovex	25	59.41	238,231	1,277,910	Roto Sonic						
H-20-18	Boring	12/6/2018	Innovex	25	59.31	238,242	1,277,804	Roto Sonic						
H-21-18	Boring	12/6/2018	Innovex	20	58.25	238,175	1,277,794	Roto Sonic						
H-651-13	Boring	7/8/2013	Innovex	27.3	62.70	238,376	1,277,802	Advanced Casing						
SB-2-19	Boring	8/24/2019	SWI	31.5	59.62	238,303	1,277,819	Roto Sonic						
SB-3-19	Boring	9/23/2019	SWI	20.8	59.20	238,211	1,277,781	Roto Sonic						
SB-4-19	Boring	9/23/2019	SWI	21.5	58.70	238,160	1,277,802	Roto Sonic						
SB-5-19	Boring	8/24/2019	SWI	20	58.82	238,262	1,277,781	Roto Sonic						
SB-6-19	Boring	8/25/2019	SWI	25	59.40	238,290	1,277,903	Roto Sonic						
SB-7-19	Boring	9/27/2019	SWI	26	60.21	238,225	1,277,832	Roto Sonic						
SB-8-19	Boring	9/25/2019	SWI	21.5	58.98	238,185	1,277,807	Roto Sonic						
SB-9-19	Boring	8/25/2019	SWI	25.4	60.02	238,334	1,277,874	Roto Sonic						

Notes:

[1] Elevations are based on survey information provided by the Washington State Department of Transportation (WSDOT). Elevations are relative to the North American Vertical Datum of 1988.

[2] Northings and Eastings are based on survey information provided by WSDOT. Northings and Eastings are relative to the North American Datum of 1983 State Plane Washington-North.

[3] Well monument type designated as flush mount (F) or stickup (S).

[4] Slug tests were performed by Shannon & Wilson, Inc.

[5] SWI = Shannon & Wilson, Inc. of Seattle, Washington

[6] Innovex = Innovex Environmental Management, Inc. of Concord, California

WAC ID = Washington Administrative Code Identification

EXHIBIT 16
RESULTS OF SLUG TEST DATA ANALYSIS

Monitoring Well Designation	Falling-Head Test: Hydraulic Conductivity (ft/sec)[d]			Rising-Head Test: Hydraulic Conductivity (ft/sec)[d]			Mean Hydraulic Conductivity (K)		
	Hvorslev[a]	Bouwer-Rice[b]	KGS[c]	Hvorslev[a]	Bouwer-Rice[b]	KGS[c]	(ft/sec)	(ft/day)	(cm/sec)
MW-4-19	3.36E-06	2.16E-06	9.25E-07	2.46E-06	1.59E-06	6.23E-07	1.59E-06	1.38E-01	4.86E-05
RW-1-19[f]	--[f]	--[f]	--[f]	2.44E-06	1.35E-06	--[g]	1.81E-06	1.57E-01	5.53E-05
RW-1-19[f]	--[f]	--[f]	--[f]	2.27E-06	1.26E-06	--[g]	1.69E-06	1.46E-01	5.15E-05
						Average of All Tests:	**1.70E-06**	**1.47E-01**	**5.17E-05**

(a) AQTESOLV analysis. Hvorslev, M.J., 1951. Time Lag and Soil Permeability in Ground-Water Observations, Bull. No. 36, Waterways Exper. Sta. Corps of Engrs, U.S. Army, Vicksburg, Mississippi, pp. 1-50.

(b) AQTESOLV analysis. Bouwer, H. and R.C. Rice, 1976. A slug test method for determining hydraulic conductivity of unconfined aquifers with completely or partially penetrating wells, Water Resources Research, vol. 12, no. 3, pp. 423-428.

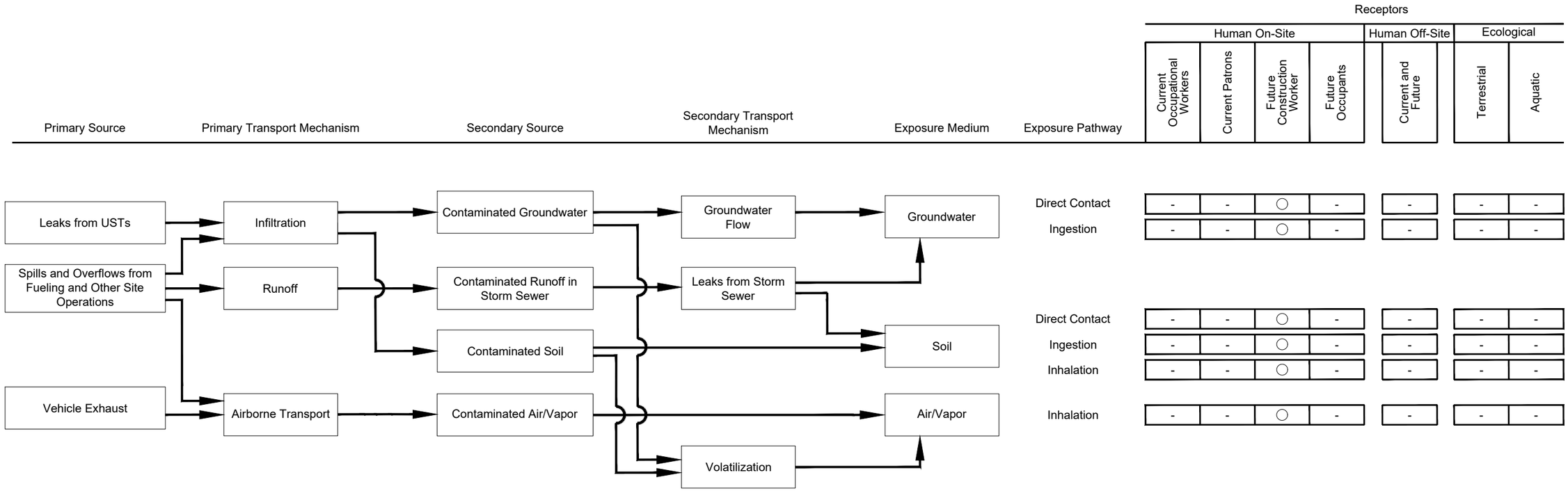
(c) AQTESOLV analysis (KGS). Hyder, Z, J.J. Butler, Jr., C.D. McElwee and W. Liu, 1994. Slug tests in partially penetrating wells, Water Resources Research, vol. 30, no. 11, pp. 2945-2957.

(d) Data from falling and rising head tests was collected from a non-vented pressure transducer compensated for barometric pressure.

(f) Two rising head tests used for RW-1-19. Falling head tests were not conducted within this well as the water table bisected the well screen.

(g) Slug test analysis not included due to non-ideal non-linear fit to data set.

cm/sec = centimeters per second; ft/day = feet per day; ft/sec = feet per second



LEGEND

○ Complete Exposure Pathway

\- Incomplete Exposure Pathway

NOTE

UST = Underground Storage Tanks

Montlake Gas Station VCP
Remedial Investigation Report
2625 E Montlake Place E
Seattle, Washington

CONCEPTUAL SITE MODEL

March 2020 21-1-22242-104

SHANNON & WILSON, INC. GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

EXHIBIT 17

Filename: J:\21\22242\104\21-1-22242-104 Conceptual Site Model.dwg Layout: Exhibit 16 Date: 12-04-2019 Login: JRS

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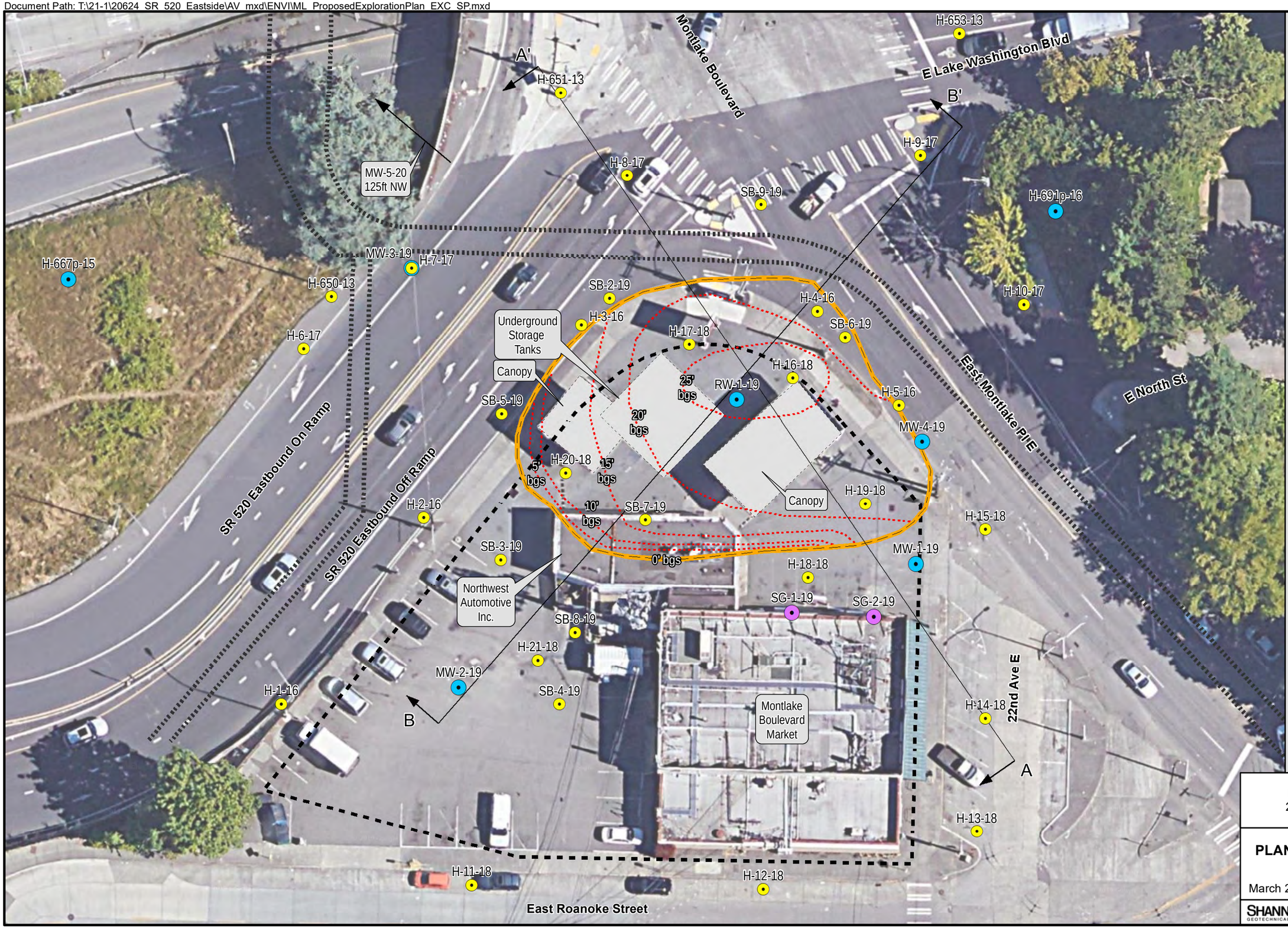


LEGEND

EXPLORATIONS

Soil Borings

Groundwater Monitoring Well

Soil Gas Probes

Subsurface Profile Location Line

Existing Utility - Sewer Line

King County Parcel Boundary
Public Right of Way Limit

Proposed Extent of Excavation

Proposed Excavation Depths
20' bgs

bgs = Below ground surface

N
W E
S

0 30
Feet

Montlake Gas Station VCP
Remedial Investigation Report
2625 East Montlake Place East
Seattle, WA

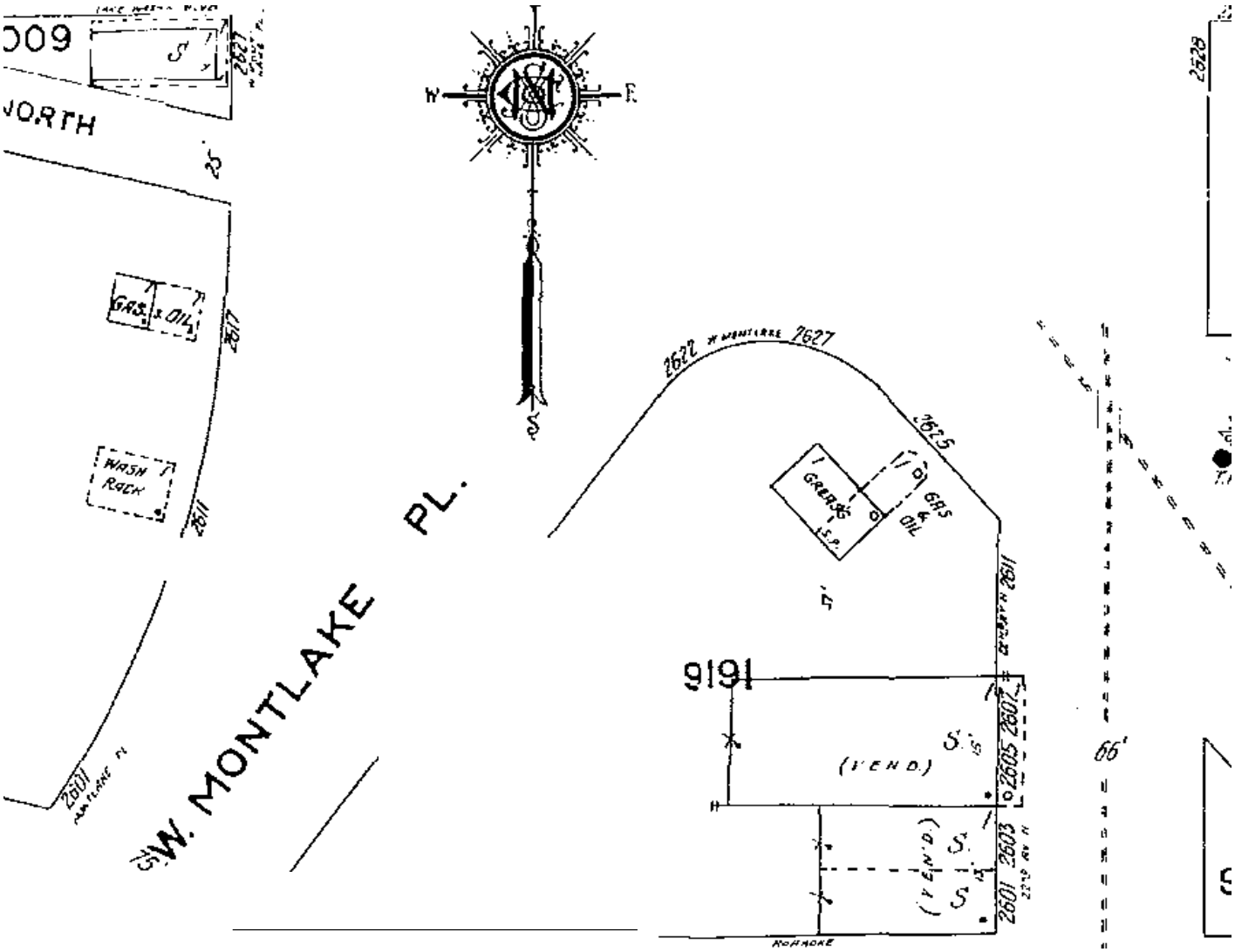
PLANNED EXCAVATION EXTENT

March 2020 21-1-22242-104

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

EXHIBIT 18

Appendix A: Sanborn Map, Aerial Photos, and Sewer Drawings (48 Sheets)



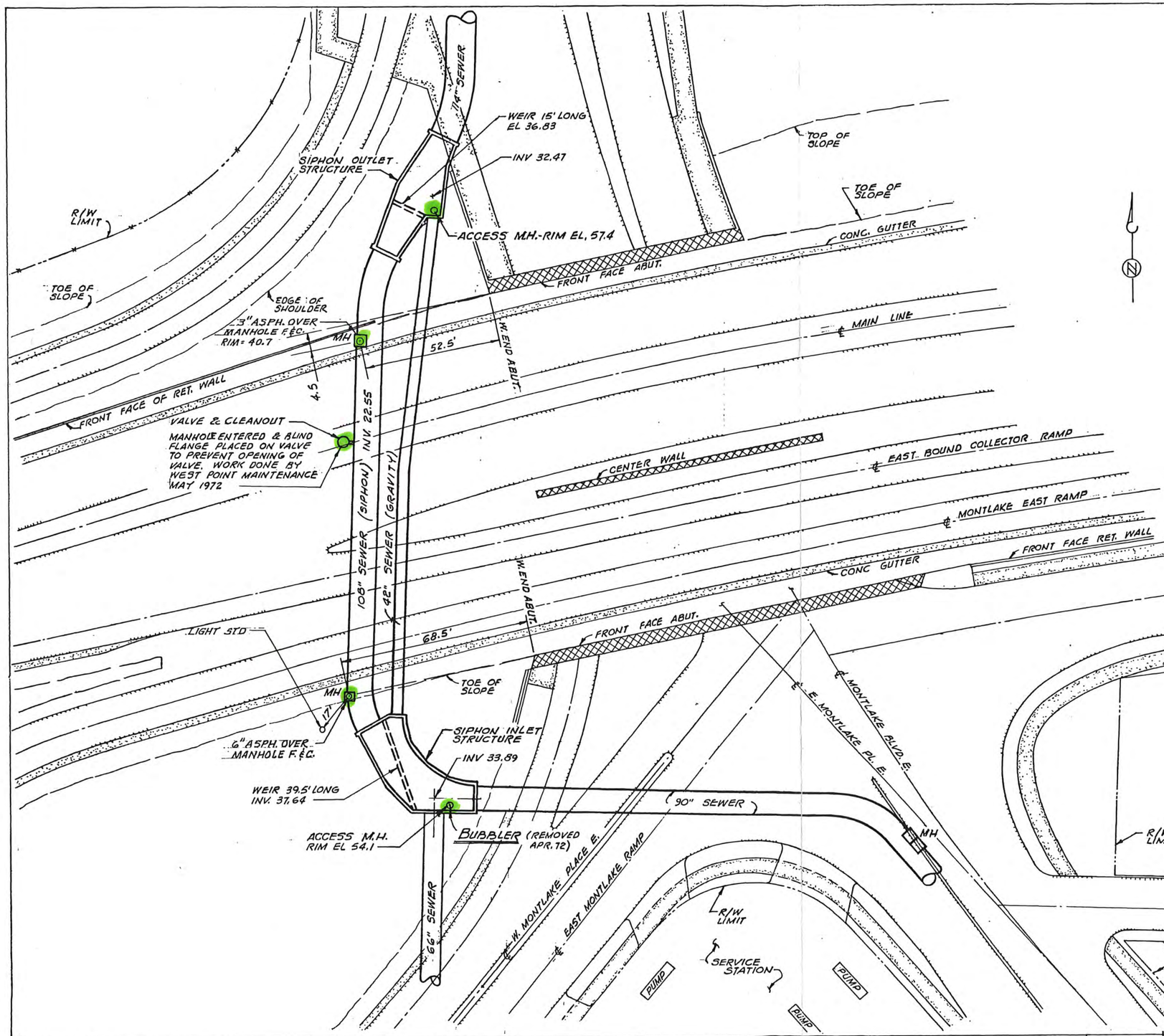
Portion of 1930 Sanborn Map.


1936 Aerial Photo
2725
2725
2725
2201
2209
2215
2227
2231
2616
2625
2610
2604
2605
2010
2601
2600
2212
2216
2225
2575
2571
2564
2565
2563
2557
2552
2550
2251
2253
2551
2201
2209
2571
2015


20919-1 3-20-62

20919-8 3-20-62


20919-7 · 3-20-62



SCHEDULE — OVERFLOW TO 108" SIPHON		
MONTH	FREQUENCY	HEIGHT OVER INLET STRUCT WEIR
OCT 71	0	——
NOV. 71	0	——
DEC. 71	1	3"
JAN. 72	1	9"
FEB. 72	2	1 @ 4" , 1 @ 7"
MAR. 72	3	1 @ 19"* 1 @ 4" , 1 @ 16"

* APPROXIMATE 10YR STORM WITH CALCULATED FLOW OF 45 MGD IN 42" AND 105 MGD IN 108" FOR A TOTAL OF 150 MGD

REFERENCES:

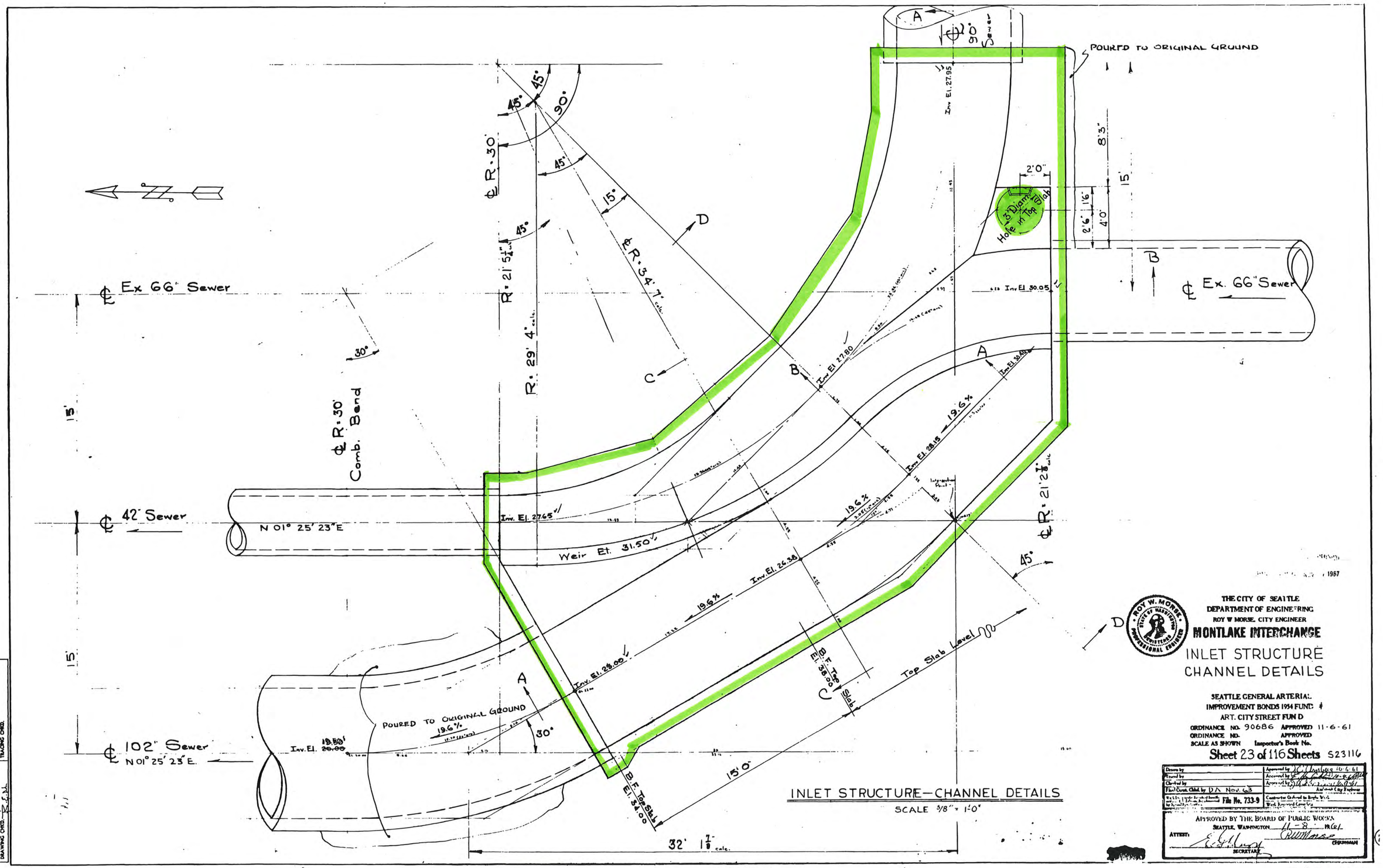
1. KROLL 31W — SECTION-NW 21-25-4
2. METRO ENGINEERS SURVEY 6-3-71
3. CITY OF SEATTLE AS BUILT DRAWINGS OF N33 FACILITY

AS BUILT
DATE APR. 1971

103645

						APR. 72	WEST POINT SYSTEM	N 33 MONTLAKE SIPHON CROSSING	G001
					SCALE 1" = 20	M250 B			SHT. 1 OF 1

42-78



DESIGN P.E. | CORRECTED
DESIGN CHKD. | BC. CHKD.
DRAWN P.E. | TRACED
DRAWING CHKD. R.E.M. | TRACING CHKD.

1967

THE CITY OF SEATTLE
DEPARTMENT OF ENGINEERING
ROY W MORSE, CITY ENGINEER

MONTLAKE INTERCHANGE

INLET STRUCTURE CHANNEL DETAILS

SEATTLE GENERAL ARTERIAL IMPROVEMENT BONDS 1954 FUND #
ART. CITY STREET FUN D
ORDINANCE NO. 90686 APPROVED 11-6-61
ORDINANCE NO. APPROVED
SCALE AS SHOWN Inspector's Book No.

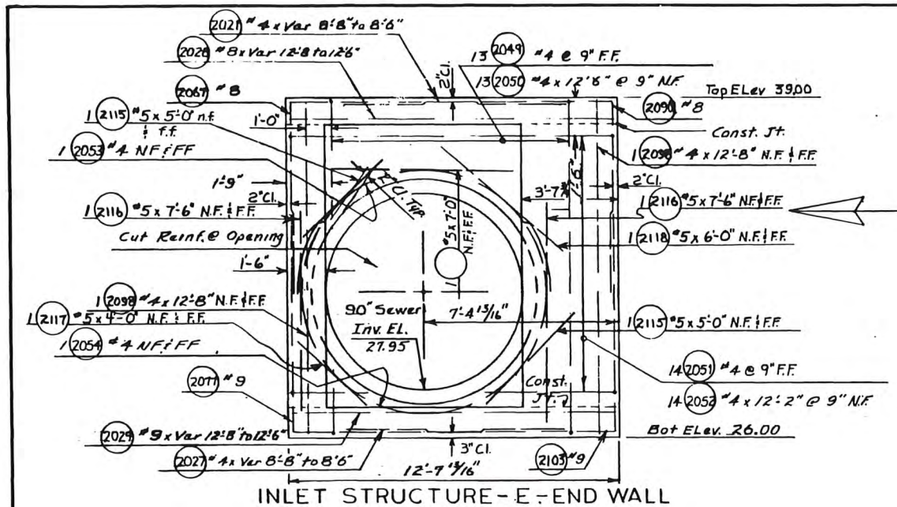
Sheet 23 of 116 Sheets S23116

Drawn by
Traced by
Checked by
Final Const. Chkd. by DA Nov. 63
Approved by [illegible] 10-6-61
Approved by [illegible] 10-6-61
Approved by [illegible] 10-6-61
Assistant City Engineer
File No. 733-9
Contractor Ordered to Begin Work
Work Accepted for Use

APPROVED BY THE BOARD OF PUBLIC WORKS
SEATTLE, WASHINGTON 11-8 1961
ATTEST: [illegible] SECRETARY [illegible] CHAIRMAN

~27582~

782-106



INLET STRUCTURE - E - END WALL

LOOKING EAST

SCALE 3/8" = 1'-0"

NOTE:
Min. Thickness of Walls & Top Slab = 1'-0"
Min. Thickness of Bot. Slab = 1'-2"

Top Slab Reinf { 3 2000 #4 x Var. 12'-4" to 14'-2" @ 6" C.C. T.F. ; 3 2001 #8 x Var. 16'-4" to 18'-2" @ 6" CC. B.F.

Bot Slab Reinf { 3 2000 #4 x Var. 12'-4" to 14'-2 @ 6" C.C. B.F. ; 3 2002 #9 x Var. 16'-4" to 18'-2@ 6" CC. T.F.

Top Slab Reinf. { 3 2003 #4 x Var. 14'-11" to 16'-1" @ 6" CC. T.F. ; 3 2004 #8 x Var. 18'-11" to 20'-1" @ 6" CC B.F.

Bot Slab Reinf. { 3 2003 #4 x Var. 14'-11" to 16'-1" @ 6" CC. B.F. ; 3 2005 #9 x Var. 18'-11" to 20'-1" @ 6" CC T.F.

Top Slab Reinf { 5 2006 #4 x Var. 16'-0" to 14'-10" @ 6" CC. T.F. ; 5 2007 #8 x Var. 20'-0" to 18'-10" @ 6" CC B.F.

Bot Slab Reinf { 5 2006 #4 x Var. 16'-0" to 14'-10" @ 6" CC. B.F. ; 5 2008 #9 x Var 20'-0" to 18'-10" @ 6" CC T.F.

INLET STRUCTURE
FRAMING PLAN - TOP & BOT. SLABS

SCALE 3/8" = 1'-0"

CONSTRUCTED PER PLAN

MICROFILMED
NOV 17 1997

THE CITY OF SEATTLE
DEPARTMENT OF ENGINEERING
ROY W MORSE, CITY ENGINEER

MONTLAKE INTERCHANGE

INLET STRUCTURE FRAMING PLAN

SEATTLE GENERAL ARTERIAL IMPROVEMENT BONDS 1954 FUND &
ART CITY STREET FUND
ORDINANCE NO. 90686 APPROVED 11-6-61
ORDINANCE NO. APPROVED
SCALE AS SHOWN Inspector's Book No.

Sheet 25 of 116 Sheets

Drawn by	Approved by [illegible] 10-6-61
Traced by	Approved by [illegible] 10-9-61
Checked by	Approved by [illegible] 10-9-61
Final Const. Chkd. by D.A. Nov. '62	Assistant City Engineer
Work Done under Standard Specs. ...	File No. 733-9
Contractor Ordered to Begin Work	
Work Reported Complete	

APPROVED BY THE BOARD OF PUBLIC WORKS
SEATTLE, WASHINGTON 11-8-1961
ATTEST: [illegible] SECRETARY — [illegible] CHAIRMAN

DESIGN R.E.N. — CORRECTED R.L.M.
DRAWN R.E.N. — BY CHKD.
TRACED R.E.N. — CHKD.
DRAWING CHKD R.L.M., C.F. — TRACING CHKD

25

~27582~

782-106

Updated in Addendum 1

Washington State Department of Transportation

SR 520 Bridge Replacement and HOV Program

I-5 to Medina: Bridge Replacement and HOV Project

SR 520 Montlake to Lake Washington – I/C and Bridge Replacement

Request for Proposal

February 28, 2018

Appendix U1.E.1
King County Sewer and Siphon Photos


20年4-1 3-19-62


20916-2 3-19-62


20916-5 3-1962


20916-5
3-19 62


3096-6
3-29-62


20916 - 7.
3-1962


20916-B
3-19-62


20942-24. 4.7.62


20946-25 4.9.62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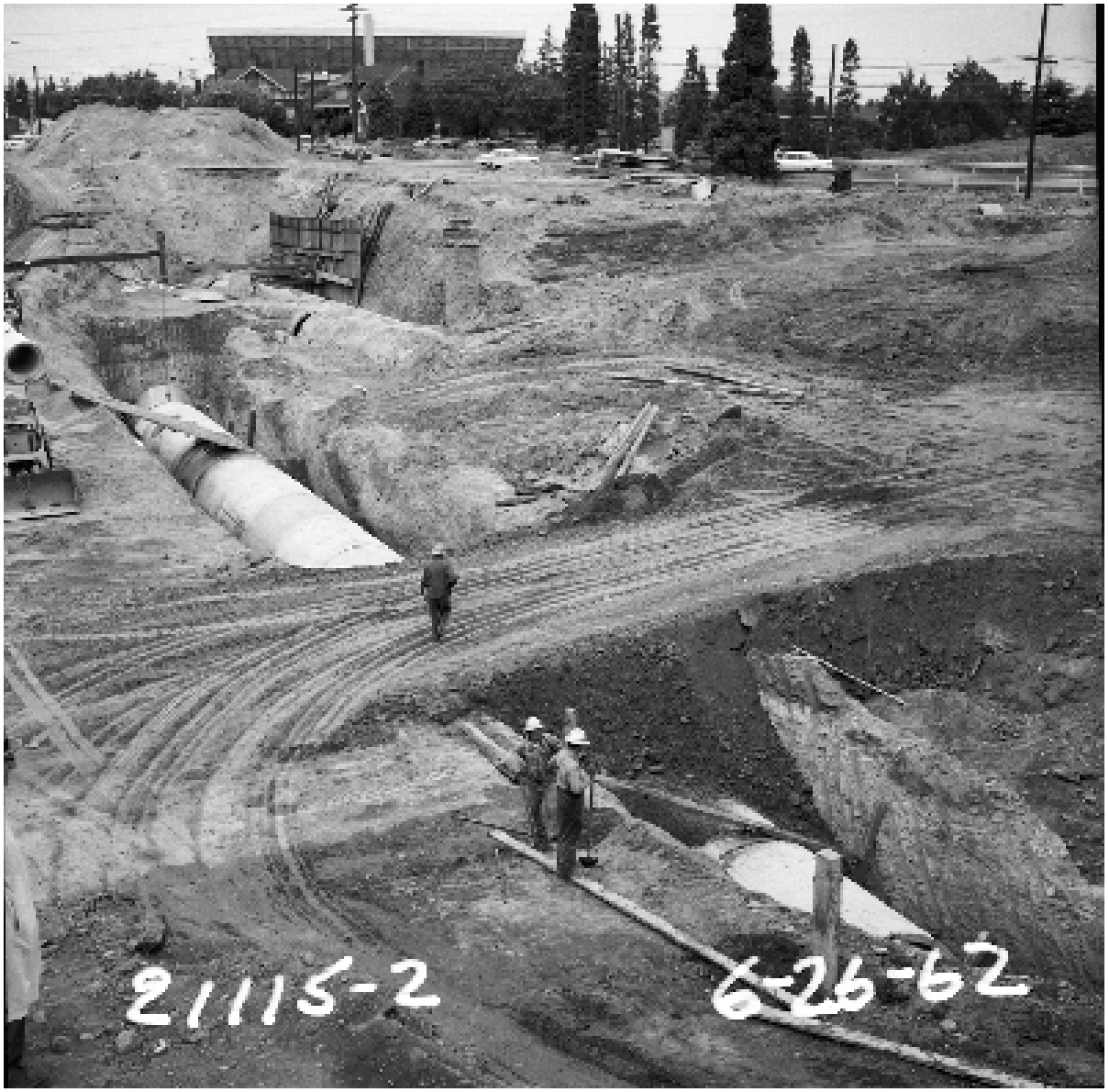
6-26-62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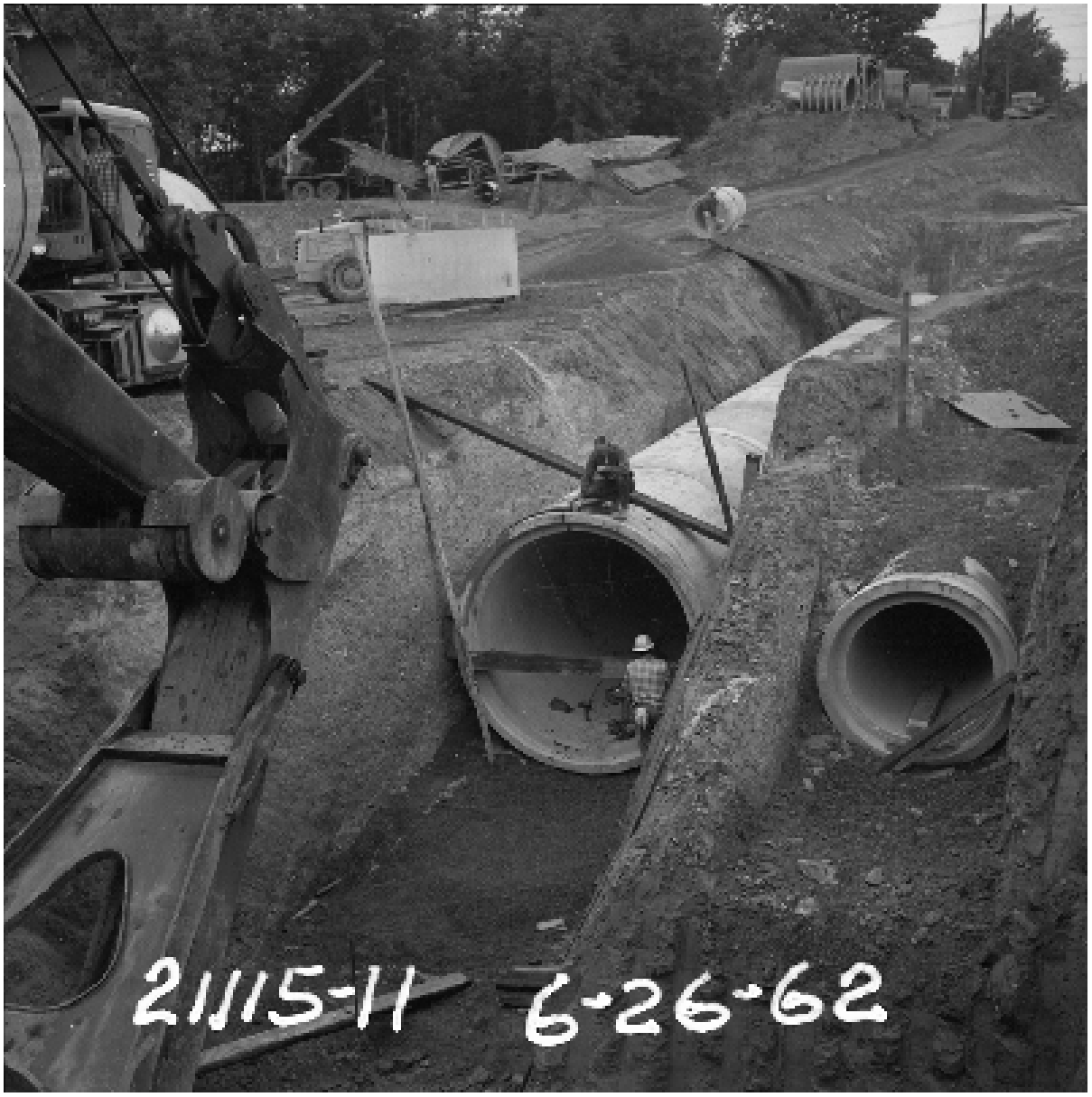
24+5-3
6-26-62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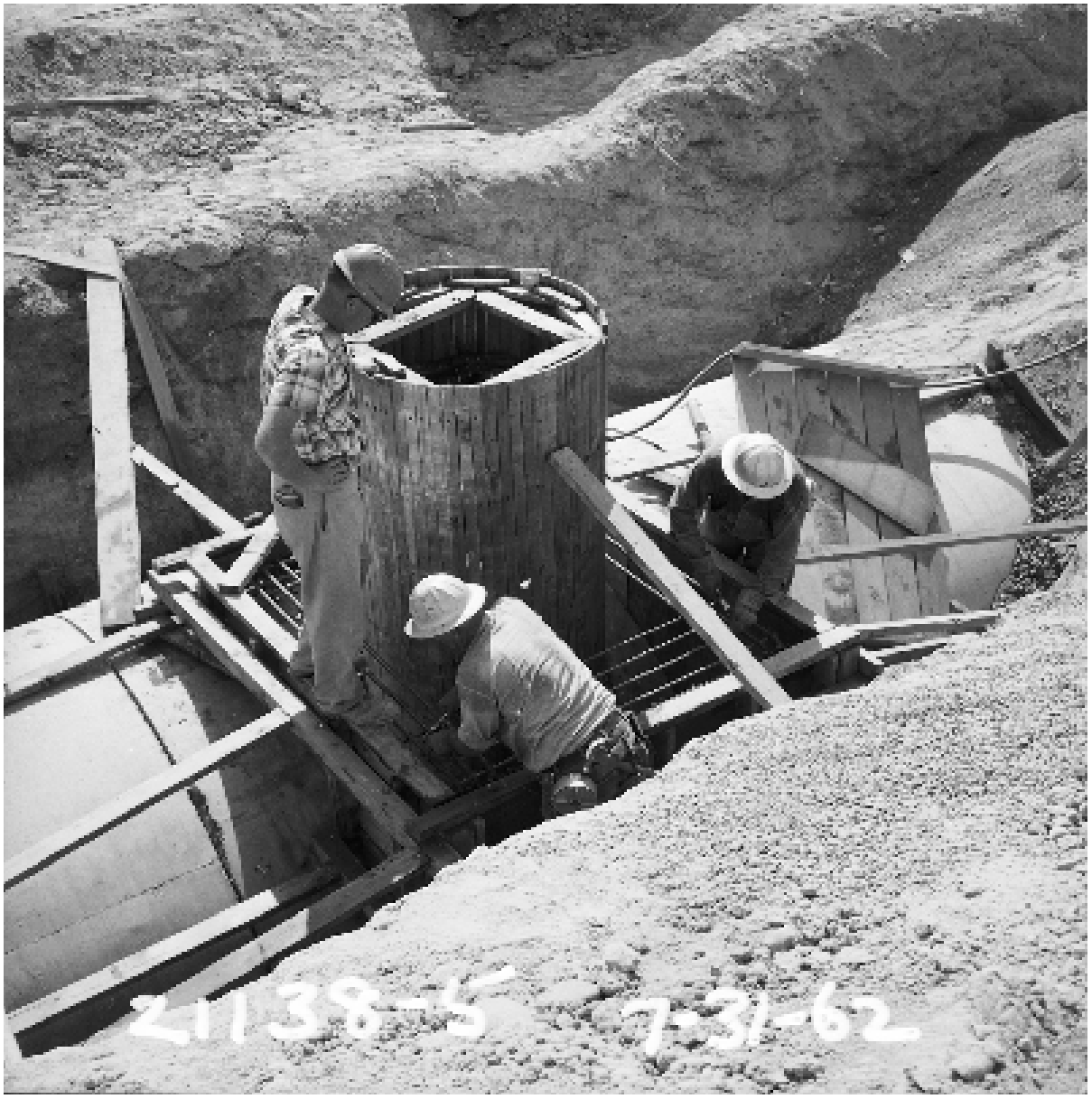
21133-1 6-10-62


21133-3
6-10-62


21133-C 6-10-62


2133-6 6-10-63


2133-7 6-10-62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-26-62


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21237-4 9-26-62


21287-5-
9-26-62


21237-6 9-26-02


21237-7 9-26-62


21237-9
9-27-62

77-7-6
21237-19


2131-1
10-29-82


21312-2
10-29-62


21313-3
10-29-62


2-13-13-4
10-29-62


21313-5
10-29-62


MONT LAKE
FLYING A SERVICE
PELLY
21313-6
10-29-62


2313-7 10-29-62


21313-8
10-29-62


21313-9
10-29-62


21313-10
10-29-62

Appendix B: 2000 Waste Oil UST Site Assessment (33 Sheets)

UST #100410

SITE ASSESSMENT REPORT

Conducted at:

Harts Service Center
2625 Montlake Place E
Seattle, WA 98112

Prepared for:

Owner
DOE
City

October 5, 2000

TABLE OF CONTENTS

LIST OF APPENDICES

1. EXECUTIVE SUMMARY

AA ENVIRO ASSESSMENT, INC. (AEA) served as Harts Service Center's representative in the Underground Storage Tank (UST) decommissioning project and Site Assessment conducted at 2625 Montlake Place East, Seattle, WA. Fieldwork included excavating to the top of the tank, decommissioning, soil sampling/laboratory analysis, and the abandonment-in-place of one (1) 300 gallon waste oil Underground Storage Tank (UST) on August 8, 2000. Our observations and findings were then compiled to prepare a site closure report.

Our investigations of the subject site were conducted under the guidelines set forth in the Washington State Department of Ecology "Guidance for Site Checks and Site Assessments for Underground Storage Tanks" (October, 1992 revision).

During the excavation to the top of the tank, visual and olfactory observation revealed readily detectable contaminants in the soils covering tank #1 (Regulated waste oil tank) 1.36 tons of Petroleum Contaminated Soils (PCS) were removed and hauled off site to Woodworth & Company located in Tacoma. Soil samples were collected through the bottom of the tank center and from both ends of the tank. . The samples were analyzed for Diesel and Heavy Oil by NWTPH-Dx /Dx Extended and Total Metals. Based on laboratory analysis, no hydrocarbon contamination existed within the soils beneath the tank. However, the soils covering the tank showed analytical results well above MTCA Method A cleanup standards at 2,200ppm for oil. Upon receipt of laboratory results, the tank was slurry filled per the owners instructions.

Based on our investigations and observations, and confirmation of laboratory results, AEA recommends a characterization be conducted in an attempt to determine the contamination plume surrounding the tank both vertically and laterally.

II. BACKGROUND AND INTRODUCTION

The subject site is Harts Service Center located at 2625 Montlake Place E., Seattle, WA The site serves as an active gasoline service station. The regulated waste oil tank is the only subject tank addressed in this report. Surrounding land use includes residential homes across Montlake Place E to the north , a Market attached to the building adjacent east, a parking lot directly behind the site south, and the exit off the freeway is adjacent west.
Zoning in the area is considered Commercial. Power to the site is located overhead.

The site is covered with asphalt with concrete covers over the tanks. The site is relativley flat. The UST's original installation date was sometime in the late 1940's.

III. UST DATA

The UST is single wall steel. The capacity of the tank is 300 gallons.

The bedding/backfill surrounding the tank was sand. There was a 4 inch concrete cover and approximately 3 feet of soil to the top of the tank. The total depth to the bottom of the tank was approximately 7.5 feet.

IV. REGIONAL CHARACTERISTICS

A) Climate

The climate of King County is marine, with cool, dry summer months and mild, but wet, winters. This general type climate is shared with the rest of western Washington. Rainfall for the area averages approximately sixty (60) inches annually (US Weather Bureau) with a loss of almost seventy-five (75) percent to evaporation and transpo-evaporation.

B) Soils/Hydrogeology

Soils at the subject site to depths of 9 feet appear to be classified as SM (silty sands, sand-silt mixtures). The water table was not encountered at a depth of approximately 9 feet.. The site is provided with water and sewer by the city. Further hydrogeological and soil characteristics of the subject site will be determined and provided in a Site Characterization report. The nearest body of water is Lake Union located approximately 700 feet west.

V. DISCUSSION

The tank was pumped and triple rinsed by Marine Vacuum Service located in Seattle. APS Services located in Pacific, WA. provided decommissioning supervision. The UST was decommissioned according to all local, County, State, and Federal regulations. All applicable permits were acquired for the project and are attached in Appendix E.

A hole was cut in the top of the tank and large enough for confined space entry. Soil samples E1, B2 and B3 were collected from beneath the tank by boring through the center and both ends. The soil samples were collected at approximately 12" below the tank using sterilized hand tools on August 9 and 13. The samples were analyzed for diesel and oil by NWTPHDx/Dx Extended and Pb,Cd, Cr, & As by Method 7000 series. The chemical analyses for these samples were non-detect or below cleanup standards.

The stockpiled soils were placed on visqueen and one soil sample (#CS) was collected and analyzed for diesel and heavy oil by Method NWTPH-Dx, and Pb, Cd, Cr,& As by Method 7000 Series on August 9. Metals . Results of the analysis was 2,200ppm for heavy oil, well above cleanup standards of 200ppm.

Groundwater was not encountered at during sampling procedures, however, more information should be collected to determine surface drainage characteristics and depths to groundwater during the site characterization.

No underground utility lines, sewers, storm drains, drop boxes, or overhead power lines were disrupted or altered by the soils excavation and sampling procedures as there were none of these fixtures within the operating area of the tank closure.

The results of the chemical analyses are presented below:

TABLE A

Soil and ~~Water~~ Sample Analytical Results

Sample #	Sample Location	Analytical Method	Results (ppm)
E1	bottom center @ 8.5-9'	NWTPH DX	nd
		Pb	nd
		Cd	nd
		Cr	nd
		As	nd
B2	South end @ 8.5-9'	NWTPH DX/DX Extended	nd
B3	North end @ 8.5-9'	NWTPH DX/DX Extended	nd
C5	Soil covering tank	NWTPH DX/DX Extended	2,200 (oil)

ENVIRO
ASSESSMENT, INC.

Results of the chemical analysis were discussed with the owner and it was recommended that the tank be removed in an effort to determine the extent of PCS surrounding the tank and pursue a possible cleanup by "chasing" the impacted soils.. The owner chose to abandon-in-place.

On August 15, APS supervised the abandonment-in-place using slurry fill. The slurry fill was provided by Stoneway Concrete located in Seattle, WA.

VI. QUANTITATIVE ANALYSIS

Soil samples were collected from beneath the tank ends and center, and one (1) foot below the bottom of the tank. The samples were analyzed in accordance with DOE requirements for underground storage tank decommissioning. Independent laboratory analyses were performed by Transglobal Environmental Geosciences Northwest, Inc., 7110 38th Drive SE, Lacey, WA. All laboratory reports and chain-of custody records are provided in Appendix C.

VII. METHODS OF SAMPLING

Soil samples were collected using hand tools. Samples were selected from at least 6 inches into the soil to ensure collection from unexposed areas and to minimize the loss of volatile contaminants. Tools were decontaminated between samples with Alconox solution wash and TSP rinsate followed with a distilled water rinse.

VIII. CONCLUSIONS & RECOMMENDATIONS

There was one (1) regulated underground storage tank successfully decommissioned by abandonment-in-place in August, 2000. The independent laboratory analysis indicated that all samples collected from beneath the tank yielded no contamination levels, and the soil sample collected from the stockpiled soils above the tank indicates the soils do not meet DOE MTCA Method A Cleanup Standards.

Based on the results of our observations, investigations, and laboratory analysis, it appears the soils above the tank have been impacted.

AEA recommends a site characterization be performed in the area surrounding the tank to determine the extent of the contamination plume both vertically and laterally for tank #1.

VIIII. LIMITATIONS:

AEA does not assume liability for any other potential release, threatened release or other conditions at the subject site.

AEA is not responsible for any claims, damages, information not disclosed, or liabilities associated with the interpretations of findings presented in this report.

If you have questions, or need further information, feel free to call. We appreciate the opportunity to provide our services for this project.

Cathy J. Frey-Hartwell, Site Assessor

PHOTOGRAPH

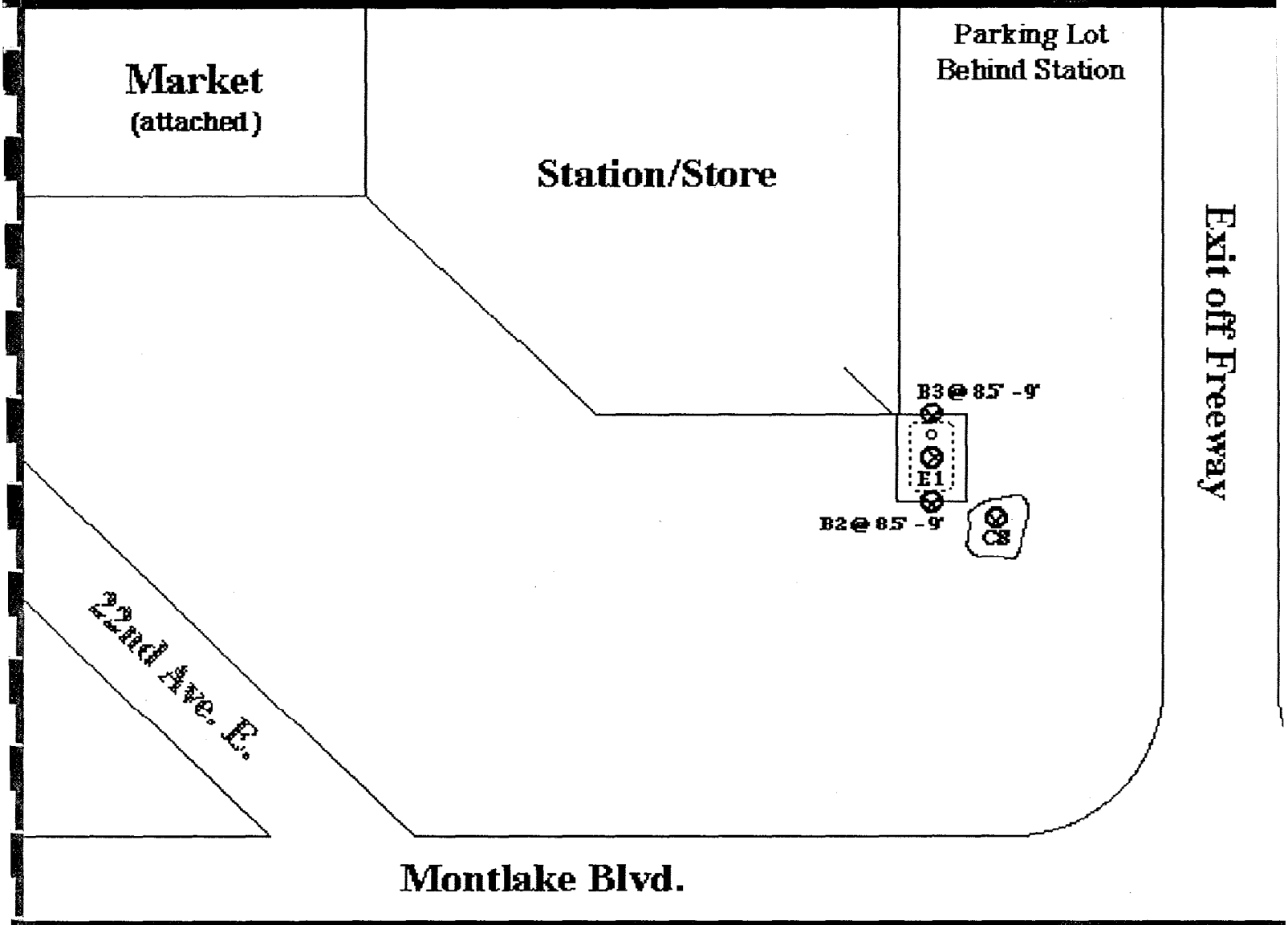
N

Subject Site

Tank in ground

Appendix A

SITE SAMPLING DIAGR



Harts Service Center
2625 Montlake Place E.
Seattle, WA 98112

ENVIRO
ASSESSM

N

MTCA Method A Cleanup Standards

	Cleanup Levels	
Hazardous Substance	**Ground Water**	**Soil**
Benzene	5 ppb[1]	0.5 ppm
Ethylbenzene	30 ppb	20.0 ppm
Toluene	40 ppb	40.0 ppm
Xylene	20 ppb	20.0 ppm
Total Petroleum Hydrocarbons (TPH):		
Gasoline TPH	1000 ppb	100.0 ppm
Diesel & Other TPH	1000 ppb	200.0 ppm
Total Lead	5 ppb	250.0 ppm

[1] If the amount of benzene in ground water is above 1 ppb, the owner or operator must submit a state remedial investigation/feasibility report (WAC 173-340-450(5)(a)(i).

Appendix B

MAPQUEST

Home | Help?

Need a Vacation?

MAPS | DRIVING DIRECTIONS | TRAFFIC | YELLOW & WHITE PAGES | TRAVEL GUIDE | CITY GUIDE

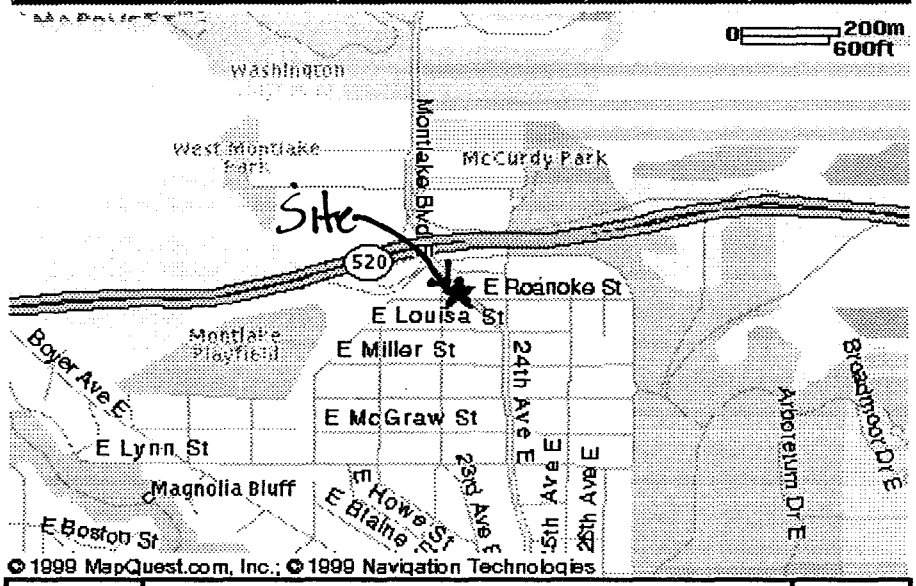
Map Options

- [illegible]
- Location
- Directions from this location
- [illegible]
- Advanced Options:
- Customize Map
- [illegible]

Sponsors

2625 E MONTLAKE PL E, SEATTLE, WA, 98112-2227, US Save this Address

PRINT | SAVE | DOWNLOAD TO PDA | E-MAIL | FAX



PANNING N W E S | CLICKING ON MAP WILL: (•) Re-center ( ) Zoom In ( ) Move Location | ZOOMING: Zoom Out — Continent — Region — City — Street — Zoom In | MAP SIZE

Places of Interest

HELP ?

Click checkboxes below to show / remove locations on the map.

[ ] [illegible] [ ] [illegible] [ ] [illegible] [ ] SixFlags

- [ ] **Attractions** (Landmarks, National Parks, Museums,)
- [ ] **Dining** (Fast Food, Fine Dining, Mexican, Italian,)
- [ ] **Education** (K-12, Universities,)
- [ ] **Lodging** (Hotels, Motels, Bed & Breakfasts,)
- [ ] **Money** (Banks, ATMs,)
- [ ] **Recreation** (Golf Courses, Ski Areas, Stables,)
- [ ] **Transportation** (Airports, Train Stations, Bus Stations,)

Update Map | Clear all Places of Interest

Sponsored Links

Travel Deals

Sponsored b

- Seattle - - Downtown $175!
- Seattle - Holiday Inn h til 9/15!

Home In Home Web

Live Traffic I

- Seattle T

Yellow Page

Search SEA

Select Or

Search

City Guide

digita

- Seattle D
- Seattle N
- Seattle M
- Seattle E

Appendix C

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST, INC.

800 Sleater-Kinney SE, PMB #262
Lacey, Washington 98503-1127

Mobile Environmental Laboratories
Environmental Sampling Services

Telephone: 360-459-4670
Fax: 360-459-3432

August 10, 2000

Cathy Frey-Hartwell
AA Enviro Assessment, Inc.
6501 27th Lane SE
Lacey, WA 98503

Dear Ms. Frey-Hartwell:

Please find enclosed the analytical data report for the Mont Lake Texaco Project in Seattle, Washington. Soil samples were analyzed for Diesel and Oil by NWTPH-Dx/Dx Extended, Pb, Cd, Cr, & As by Method 7000 series on August 9, 2000.

The results of these analyses are summarized in the attached table. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. An invoice for this analytical work has been sent to APS Services.

TEG Northwest appreciates the opportunity to have provided analytical services to AA Enviro Assessment for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Michael A. Korosec
President

QA/QC FOR ANALYTICAL METHODS

GENERAL

The TEG Northwest Laboratory quality assurance and quality control (QA/QC) procedures are conducted following the guidelines and objectives which meet or exceed certification/-accreditation requirements of California DOHS, Washington DOE, and Oregon DEQ. The Quality Control Program is a consistent set of procedures which assures data quality through the use of appropriate blanks, replicate analyses, surrogate spikes, and matrix spikes, and with the use of reference standards that meet or exceed EPA standards.

When analyses are taking place on-site with the mobile lab, the need for Field Blanks or Travel/Trip Blanks is eliminated. If there is going to be a delay before sample preparation for analysis, the sample is stored at 4^{O} C.

ANALYTICAL METHODS

TEG Northwest Labs use analytical methodologies which are in conformity with U. S. Environmental Protection Agency (EPA), Washington DOE, and Oregon DEQ methodologies. When necessary and appropriate due to the nature or composition of the sample, TEG may use variations of the methods which are consistent with recognized standards or variations used by the industry and government laboratories.

TPH-Gasoline, TPH-Diesel
(Gasoline and/or Diesel, Modified EPA 8015, NWTPH-Gx and NWTPH-Dx)

A check standard is run at the beginning of the day. 1) A close standard is run at the end of the day. 2) Both open and close standards must be within 15% of the continuing calibration curve value. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135% unless high sample concentrations interfere with the determination of the recovery percentage. A duplicate sample is run at a rate of 1 per 10 samples. At least 1 method blank is run per 20 samples analyzed.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST, INC.

MONT LAKE TEXACO PROJECT
Seattle, Washington
APS \ AEA

Analyses of Diesel & Oil (NWTPH-Dx/Dx Extended) in Soil

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Oil (mg/kg)
Method Blank	8/9/00	94	nd	nd
E1	8/9/00	105	nd	nd
CS	8/9/00	103	nd	2,200
Method Detection Limits			20	40

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Marilyn Farmer
DATA REVIEWED BY: Sherry Chilcutt

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST, INC.

MONT LAKE TEXACO PROJECT
Seattle, Washington
APS \ AEA

Heavy Metals in Soil by EPA-7000 Series

Sample Number	Date Analyzed	Lead (Pb) EPA 7420 (mg/kg)	Cadmium (Cd) EPA 7130 (mg/kg)	Chromium (Cr) EPA 7190 (mg/kg)	Arsenic (As) EPA 7061 (mg/kg)
Method Blank	8/9/00	nd	nd	nd	nd
E1	8/9/00	nd	nd	nd	nd
Method Detection Limits		5	1	20	20

"nd" Indicates not detected at listed detection limits.

ANALYSES PERFORMED BY: Sherry Chilcutt

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST, INC.

MONT LAKE TEXACO PROJECT
Seattle, Washington
APS \ AEA

QA/QC Data - Total Metals EPA-7000 Series Analyses

Sample Number: ENCO 43A							
	Matrix Spike			Matrix Spike Duplicate			RPD
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	(%)
Lead	125	108	86	125	112	90	3.64
Cadmium	25	20.5	82	25	21	84	2.41
Arsenic	63	55	88	63	60	96	8.70

	Laboratory Control Sample		
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)
Lead	125	150	120
Cadmium	25	28	112
Arsenic	63	58	93

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%
ACCEPTABLE RPD IS 20%

ANALYSES PERFORMED BY: Sherry Chilcutt

CLIENT: APS / AEA

ADDRESS: Cell phone (360) 250-1951 -253-735-2678 357-5761

PHONE: 459.5566 FAX:

CLIENT PROJECT #: PROJECT MANAGER Cathy FH

DATE: 8-9-00 PAGE 1 OF 1

PROJECT NAME: Mont Lake Texaco

LOCATION: Seattle

COLLECTOR: Cathy Frey-Hartwell DATE OF COLLECTION 8/8/00

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 8010/8021B	VOA 8021B BTEX	VOA 8260	SEMI VOL 8270	TPH - HCID	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (d & o)	PAH 8100	PCBs 8082	Pesticides 8081	TOTAL LEAD	pH	Total Metals (Cd, Cr, Pb, Zn) * 4 metals	NOTES	Total Number of Containers	Laboratory Note Number
1. E1	*		Soil	4 oz jar						X							X		* 6" to 12" below bottom of tank	1	
2.																					
3. C5	*		Soil							X									* Stockpile soil covering to top of tank	1	
4.																					
5.																					
6.																					
7.																					
8.																					
9.																					
10.																					
11.																					
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16.																					
17.																					
18.									/												

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
	8-9-00		8-9-00 0948
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	2
CHAIN OF CUSTODY SEALS Y/N/NA	(N)
SEALS INTACT? Y/N/NA	(N)
RECEIVED GOOD COND./COLD	Y
NOTES:	

LABORATORY NOTES:

* Invoice to APS
copy to Cathy
APS permission to get results

Turn Around Time:

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST, INC.

800 Sleater-Kinney SE, PMB #262
Lacey, Washington 98503-1127

Mobile Environmental Laboratories
Environmental Sampling Services

Telephone: 360-459-4670
Fax: 360-459-3432

August 16, 2000

Cathy Frey-Hartwell
AA Enviro Assessment, Inc.
6501 27th Lane SE
Lacey, WA 98503

Dear Ms. Frey-Hartwell:

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President

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ANALYTICAL METHODS

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TPH-Gasoline, TPH-Diesel
(Gasoline and/or Diesel, Modified EPA 8015, NWTPH-Gx and NWTPH-Dx)

A check standard is run at the beginning of the day. 1) A close standard is run at the end of the day. 2) Both open and close standards must be within 15% of the continuing calibration curve value. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135% unless high sample concentrations interfere with the determination of the recovery percentage. A duplicate sample is run at a rate of 1 per 10 samples. At least 1 method blank is run per 20 samples analyzed.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST, INC.

MONT LAKE PROJECT
Seattle, Washington
APS/AEA

Analyses of Diesel & Oil (NWTPH-Dx/Dx Extended) in Soil

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Oil (mg/kg)
Method Blank	8/15/00	83	nd	nd
B2	8/15/00	116	nd	nd
B3	8/15/00	116	nd	nd
Method Detection Limits			20	40

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Marilyn Farmer
DATA REVIEWED BY: Sherry Chilcutt

teg TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES

CHAIN-OF-CUSTODY RECORD

CLIENT: APS / AEA

ADDRESS:

PHONE: 459. 5566 FAX:

CLIENT PROJECT #: PROJECT MANAGER: Cathy FH

DATE: 8-15-00 PAGE 1 OF 1

PROJECT NAME: Mont Cake

LOCATION: Seward

COLLECTOR: Greg Hartwell DATE OF COLLECTION 8/14/00

Sample Number	Depth	Time	Sample Type	Container Type	VOA 8010/8021B	VOA 8021B BTEX	VOA 8260	SEMI VOL 8270	TPH - HCID	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (d & o)	PAH 8100	PCBs 8082	Pesticides 8081	TOTAL LEAD	pH	NOTES	Total Number of Containers	Laboratory Number
1. B2	8.5-9'		soil	4oz glass jar						X								end		
2. B3	8.5-9'		soil	4oz glass jar						X								end		
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
11.																				
12.																				
13.																				
14.																				
15.																				
16.																				
17.																				
18.																				

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
Greg Hartwell	8500	Julie Wielke	8/15/00
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL @ $0.00 ☐

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	

LABORATORY NOTES:
* Invoice to APS
copy to Cathy
If you get a gas

Appendix D

08/03/2000 14:44 8639844 ARS SERVICES PAGE 02

ASPECT ATT. STEVE HOMASU NW REGION

UNDERGROUND STORAGE TANK
30 DAY NOTICE

See back of form for instructions

Please ✓ the appropriate box: ☐ Intent to Install ☒ Intent to Close ☐ Both

FOR OFFICE USE ONLY
File ID #
Owner ID #
Once validated by Ecology, this form serves as your temporary permit for the tanks listed below.

WAIVE 30 day Requirement
R. Thomas
NWRO
425-649-7219

ANNETTE HOMASU N.W REGION

Site Information

Site ID Number 100410
(Available from Ecology if the tanks are registered)

Site/Business Name HART'S SERVICE CENTER

Site Address 2625 MOUNTLAKE PLACE E
Street

City/State SEATTLE, WA.

Zip Code 98112 Telephone (206) 322-5441

Owner Information
(This form will be returned to this address)

UST Owner/Operator JIM HART

Mailing Address 7605 22ND AVE E.
Street

P.O. Box

City/State SEATTLE WA

Zip Code 98112 Telephone (360) 658 8998

Tank Installation Company (If known). Fill out this section ONLY if tanks are being installed.

Service Company ~~ARS~~ ~~SERVICES~~

Contact Name ~~DAVE THOMAS~~

Address
Street

City State P.O. Box

Zip Code Telephone ( )

Tank Permanent Closure Company (If known). Fill out this section ONLY if tanks are being closed.

Service Company ARS SERVICES

Contact Name DAVE THOMAS

Address Street 117 N. [illegible] PORT ANGELES P.O. Box

City [illegible] State WA Zip Code 98362

Telephone (360) 775-1625

Tank Closure Information

Fill out this section ONLY if tanks are being closed.

Tank ID	Proposed Closure Date	Tank Capacity	Substances Stored	Date Tank Last Used	Is There Product in the Tank (Yes/No)	If Not, Date the Tank Was Emptied
#1	8/2/00	1000	GAS	8/2/00	NO	8/2/00

Tank Installation Information

Fill out this section ONLY if tanks are being installed.

Tank ID	Approx. Install Date

To receive this document in an alternative format, contact the TOXICS CLEANUP PROGRAM at 1-800-826-7716 (VOICE) OR (360) 407-6006 (TDD)

ECY 020-95 (Rev 6/95)

UNDERGROUND STORAGE TANK
Site Check/Site Assessment Checklist

For Office Use Only	
Owner #	
Site #	

INSTRUCTIONS:

When a release has **not** been confirmed and reported, this Site Check/Site Assessment Checklist must be completed and signed by a person registered with the Department of Ecology. **The results of the site check or site assessment must be included with this checklist.** This form must be submitted to Ecology at the address shown below within 30 days after completion of the site check/site assessment.

SITE INFORMATION: Include the Ecology site ID number if the tanks are registered with Ecology. This number may be found on the tank owner's invoice or tank permit.

TANK INFORMATION: Please list all the tanks for which the site check and site assessment is being conducted. Use the tank ID number if available, and indicate tank capacity and substance stored.

REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT: Please check the appropriate item.

CHECKLIST: Please initial each item in the appropriate box.

SITE ASSESSOR INFORMATION: This form must be signed by the registered site assessor who is responsible for conducting the site check/ site assessment.

Underground Storage Tank Section
Department of Ecology
P. O. Box 47655
Olympia, WA 98504-7655

SITE INFORMATION

Site ID Number (on invoice or available from Ecology if the tanks are registered): _____

Site/Business Name: Hart's Service Center

Site Address: 2625 Montlake PL E (Street) Telephone: (206) 322-5441

Seattle (City) WA (State) 98112 (ZIP-Code)

TANK INFORMATION

Tank ID No.	Tank Capacity	Substance Stored
1	300 g	waste oil

REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT

Check one:

- ____ Investigate suspected release due to on-site environmental contamination.
- ____ Investigate suspected release due to off-site environmental contamination.
- ____ Extend temporary closure of UST system for more than 12 months.
- ____ UST system undergoing change-in-service.
- ✓ UST system permanently closed-in-place.
- ____ UST system permanently closed with tank removed.
- ____ Abandoned tank containing product.
- ____ Required by Ecology or delegated agency for UST system closed before 12/22/88.
- ____ Other (describe): _____

CHECKLIST

Each item of the following checklist shall be initialed by the person registered with the Department of Ecology whose signature appears below.

		YES	NO
1.	The location of the UST site is shown on the vicinity map.	CF	
2.	A brief summary of information obtained during the site inspection is provided. (see Section 3.2 in the Site Assessment Guidance)	CF	
3.	A summary of UST system data is provided. (see Section 3.1) waste oil only	CF	
4.	The soils characteristics at the UST site are described. (see Section 5.2) partial	CF	
5.	Is there apparent groundwater in the tank excavation?		CF
6.	A brief description of the surrounding land is provided. (see Section 3.1)	CF	
7.	Information has been provided indicating the number and types of samples collected, methods used to collect and analyze the samples, and the name and address of the laboratory used to perform the analyses.	CF	
8.	A sketch or sketches showing the following items is provided:		
	- location and ID number for all field samples collected	CF	
	- groundwater samples distinguished from soil samples (if applicable)	N/A	
	- samples collected from stockpiled excavated soil	CF	
	- tank and piping locations and limits of excavation pit	N/A	
	- adjacent structures and streets	CF	
	- approximate locations of any on-site and nearby utilities	CF	
9.	If sampling procedures different from those specified in the guidance were used, has justification for using these alternative sampling procedures been provided? (see Section 3.4)	N/A	
10.	A table is provided showing laboratory results for each sample collected including: sample ID number, constituents analyzed for and corresponding concentration, analytical method and detection limit for that method.	CF	
11.	Any factors that may have compromised the quality of the data or validity of the results are described.	N/A	
12.	*The results of this site check/site assessment indicate that a confirmed release of regulated substance has occured.*	CF	

SITE ASSESSOR INFORMATION

Cathy Frey-Hartwell
PERSON REGISTERED WITH ECOLOGY

AA ENVIRO ASSESSMENT, INC
FIRM AFFILIATED WITH

BUSINESS ADDRESS: 5150 College St. SE #C201
TELEPHONE: (360) 459-5366

Lacey
CITY

WA
STATE

98503
ZIP+CODE

I hereby certify that I have been in responsible charge of performing the site check / site assessment described above. Persons submitting false information are subject to penalties under Chapter 173-360 WAC.

10-5-00
Date

Signature of Person Registered with Ecology

UNDERGROUND STORAGE TANK
Closure and Site Assessment Notice

See back of form for instructions

FOR OFFICE USE ONLY
Site ID #:
Owner ID #:

Please ✓ the appropriate box(es)
☐ Temporary Tank Closure ☐ Change-in-Service ☑ Permanent Tank Closure ☐ Site Check/Site Assessment

Site Information

Site ID Number _____
(Available from Ecology if the tank is registered)
Site/Business Name Harts Service Center
Site Address 2625 Montlake Pl. E (Street)
City/State Seattle WA
Zip Code 98112 Telephone 206 322 5441

Owner Information

(This form will be returned to this address)
UST Owner/Operator Jim Hart or Jack Baker
Mailing Address Same (Street / P.O. Box)
City/State _____
Zip Code _____ Telephone 360 658-8998

X Owner's Signature _____

Tank Closure/Change-in-Service Company

Service Company APS Services, Inc.
Certified Supervisor Melvin Dutt
Decommissioning Certification No. ASI 32004453
X Supervisor's Signature _____
Address 117 Frontage Rd NE Bldg C (Street / P.O. Box)
City Pacific State WA Zip Code 98047 Telephone 800 660-6557

Site Check/Site Assessor

Certified Site Assessor Cathy Frey
Address Street 5150 College St. SE P.O. Box _____
City Lacey State WA Zip Code 98503 Telephone 360 459-5566

Tank Information

Tank ID	Closure Date	Closure Method	Tank Capacity	Substance Stored
#1		in place	300 g	waste oil

Contamination Present at the Time of Closure

☑ Yes ☐ No ☐ Unknown
Check unknown if no obvious contamination was observed and sample results have not yet been received from analytical lab.

☐ Yes ☐ No
If contamination is present, has release been reported to the appropriate regional office?

To receive this document in an alternative format, contact the TOXICS CLEANUP PROGRAM at 1-800-826-7716 (voice) OR (360) 407-6006 (TDD).

ECY 070-94 (Rev. 6/95)

Appendix E

Woodworth & Company, Inc.

GENERAL CONTRACTORS

1200 East D Street / Tacoma, Washington 98421
Telephone (253) 383-3585

LAKEVIEW PIT TICKET

Contractors Lic. # WOODW 377NO

MEMBER NAPA NATIONAL ASPHALT PAVEMENT ASSOCIATION

Ticket # 459723
Wmaster REBECCA

#0007-60

MIKE LINNANE

CAUTION: HOT ASPHALT WILL BURN YOU!

RECEIVED *

CUSTOMER:
T.P.S.
81384

PURCHASE ORDER:
T.P.S. TECH.
2994

	JOB LOAD	JOB TONS
TOTAL		
DAILY	1	1.36

DATE	PLANT	SILO #	JOB	PLANT	TRUCK	SEQUENCE	REFERENCE
09/15/00			60-		0772		
TIME 8:50							

MIXTURE	GROSS	TARE	NET WT. TONS	PRICE	TOTAL
200 CONT. SOIL	15720	13000	1.36		

SPECIAL INSTRUCTIONS

2720 Net LB 2

Net Metric Tons
1.23

TAX %
PAY THIS AMOUNT

PIT B160

CUBIC YDS

REMARKS

X

SCALE OPERATOR

VISA MasterCard

#0001-60

Manifest

TPS Technologies Soil Recycling
Non-Hazardous Soils

Manifest #

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Consultant		A03	02994	001

Generator and/or Consultant

Generator's Name and Billing Address:	Generator's Phone #:	Generator's US EPA ID No.
HART'S SERVICE CENTER 2625 MOUNTLAKE PLACE E. SEATTLE, WA 98403 USA	(425) 503-6402 Person to Contact: JACK BAKER FAX#:	Customer Account Number with TPS: 3HARTSS

Consultant's Name and Billing Address:	Consultant's Phone #:	
APS SERVICES 117 FRONTAGE ROAD Bldg. C PACIFIC , WA 98047 USA	(253) 735-2525 Person to Contact: EVERETT DUNHAM FAX#: (253) 735-2678	Customer Account Number with TPS: 1001426

Generation Site (Transport from): *(name & address)*	Site Phone #:	BTEX Levels
HART'S SERVICE CENTER 2625 MOUNTLAKE PLACE E. SEATTLE, WA 98403 USA	(425) 503-6402 Person to Contact: JACK BAKER FAX#: (425) -	TPH Levels AVG. Levels

Designated Facility (Transport to): *(name & address)*	Facility Phone #:	Facility Permit Numbers
TPS Technologies Inc. 2800 - 104th Street Court South Lakewood, WA 98499 USA	(253)584-8430 Person to Contact: Renee Avelino FAX#: (253)584-8309	

Transporter Name and Mailing Address:	Transporter's Phone #:	Transporter's US EPA ID No.:
APS SERVICES 117 FRONTAGE ROAD NORTH BLDG. C PACIFIC, WA 98047 USA	(253) 735-2525 Person to Contact: DAVE THOMAS FAX#: (253) 735-2678	Transporter's DOT No.: Customer Account Number with TPS: JAPSSER

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐		NET TONS=			

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator ☐ Consultant ☐	Signature and date:	Month	Day	Year
->				

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name:	Signature and date:	Month	Day	Year
Michael Linnane		8	15	

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name:	Signature and date:
RENEE AVELINO - CSM	

Please print or type.

RECEIVED
JUL 17 2000
PERMIT SECTION

Your Seattle Fire Department

APPLICATION FOR TEMPORARY PERMIT

Permit Code No.: 7908 Title: COMMERCIAL FLAMMABLE/COMBUSTIBLE LIQUID, TANK DECOMMISSIONING

Fee: $98.00 Code Reference: SFC 7901.3

7-17-00 (Date Received) / 8-14-00 (Date Issued) / 8-14-00 (Expiration Date/Time)

Firm Name: APS Services Phone: 253 735 2525

Firm Address: 117 Frontage Rd. N. Bldg C City: Pacific State: WA Zip: 98047-1025

Job Site: 2625 Mountlake Place E. Seattle WA.

Person In Charge: Dave Thomas Phone: (253) 735-2525 / cell (253) 606-5054 MEL-Z

Number of Tank(s): 1 Tank Size(s): 500 Gallon

Product(s) Previously Contained: W/O Hot Work: ☐ Yes ☒ No

☒ Removal ☒ Abandonment-in-Place

Remittance for permit fee as shown above must be returned with this application to:

✓ Seattle Fire Department
Permits Section
220 Third Avenue South
Seattle, WA 98104-2608

Make Checks Payable To: City of Seattle

Procedures: Call 233-7106, at least 24 hours prior to needed inspection time to arrange for an appointment. Appointments must be confirmed by an inspector.

TANKS MAY BE DECOMMISSIONED ONLY AFTER FIRE DEPARTMENT INSPECTION

Permit Conditions:

1. Excavation of any tank prior to inspection by the Fire Marshal's Office is prohibited.
   EXCEPTION: Removal of asphalt or concrete over the tank is permitted.
2. Two (2) portable fire extinguishers with a minimum rating of 40 BC shall be on site within 50 feet of the operation. Fire extinguishers shall be inspected, approved and certified annually.
3. Rope or ribbon barricades shall be provided circling 10 feet from the operation or be enclosed in a fenced yard.
4. "No Smoking" signs shall be posted in readily visible locations.
5. No hot work is allowed on a tank unless the tank is certified "safe for hot work" by a marine chemist.
6. A separate Fire Department permit (Code 4913) or a validation number is required for cutting and welding operations.

Special Permit Conditions:

FMO USE
Receipt No.: 5-13773
Check No.: 70861
Application ID#: 33366

APPROVED BY
Inspector: HEIN FMO
Date: 8-14-00

STONEWAY CONCRETE

ACCOUNTING: 9125 TENTH AVENUE SOUTH
SEATTLE, WA 98108 • (206) 762-2566

RENTON (Plant #10) 1915 Maple Valley Hwy., Renton
SEATTLE (Plant #11) 3803 E. Marginal Wy S., Seattle
TUKWILA (Plant #12) 17024 W. Valley Hwy., Tukwila
CEDAR SHORES (Plant #20) 21010 Cedar Grove Rd. S.E., Maple Valley
A DIVISION OF GARY MERLINO CONSTRUCTION COMPANY, INC.

DELIVERY TICKET

SALES/PLANT & ORDER DESK (425) 226-1000
FAX (425) 228-4924

TICKET TIME AM/PM	LEAVE PLANT	ARRIVE JOB	BEGIN POUR	FINISH POUR	LEAVE JOB	ARRIVE PLANT
12:50	13:55	14:12	14:20			

DATE	CUSTOMER NO.	ORDER NO.	PROJECT	PLANT #
08/15/2000	050741	8551		011

CUSTOMER NAME	CUSTOMER P.O.	JOB NO.	DELIVERY TICKET NO.
A P S SERVICES		JOB001	158588

JOB ADDRESS: 2625 MONTLAKE PL E / SEATTLE

MAP ZONE: 565-D1

SPECIAL INSTRUCTIONS: TAKE STONEFLOW

COLLECT ON DELIVERY (C.O.D.)

☐ CASH ☐ CHECK # _____ ☐ CHARGE

CARD # _____ EXP. __/__

☐ VISA ☐ MASTERCARD ☐ DISCOVER

QUANTITY	U.M.	PRODUCT CODE	DESCRIPTION	UNIT PRICE	TAX	AMOUNT
2.00	CY	1121	150 CMT SND 200 PSI MIX W/SI			
6.00	EA	30001	MIN HAUL-LESS THAN 8 YDS			
2.00	CY	30075	ENVIRONMENTAL SURCHARGE			

JOB TOTAL	SLUMP	SPACING	ORDERED BY
2.00	3.00		

TRUCK NO.: 364

DRIVER: NIEMELA, STEVE

SUB-TOTAL	
SALES TAX	
BALANCE FORWARD	
TOTAL AMOUNT	

REMIT TO
9125 10th AVE. S.
SEATTLE, WA
98108
TERMS ON REVERSE

WATER ADDED ON-SITE

AUTHORIZED BY: _____

_____ gals. to full load

_____ gals. to 2/3 load

_____ gals. to 1/3 load

CYLINDERS

☐ YES

☐ YES

☐ YES

☐ NONE

REASON FOR DELAY TIME:

☐ JOB NOT READY ☐ LACK OF HELP ☐ ADDING WATER ☐ WHEEL BARROW JOB
☐ ARRIVED JOB EARLY ☐ TRAFFIC ☐ TRAIN ☐ DRAW BRIDGE
☐ WAITING FOR TRUCK TO UNLOAD ☐ PUMP BLOW-BACK
☐ WAITING ON PUMP ☐ WASH PUMP ☐ OTHER _____

ADDITION OF WATER WILL REDUCE STRENGTH. WATER ADDED AT CUSTOMER'S OWN RISK.

7 MINUTES PER CUBIC YARD UNLOADING TIME INCLUDED.
Additional unloading time charged at current hourly truck rate.

– WARNING – IRRITATION TO SKIN AND EYES SEE REVERSE (16)

NOT RESPONSIBLE FOR COLOR VARIATION OR SURFACE DISCOLORATION

RELEASE — CUSTOMER RELEASES AND AGREES TO HOLD HARMLESS **STONEWAY CONCRETE**, A DIVISION OF GARY MERLINO CONSTRUCTION COMPANY, INC. FOR ANY DAMAGE TO HIS REAL OR PERSONAL PROPERTY CAUSED BY DELIVERY OF MATERIALS LISTED ABOVE. DETAILS OF SITE AGREEMENT ACCESS ON BACK (5).

CUSTOMER SIGNATURE _____

PRINT NAME _____ DATE _____

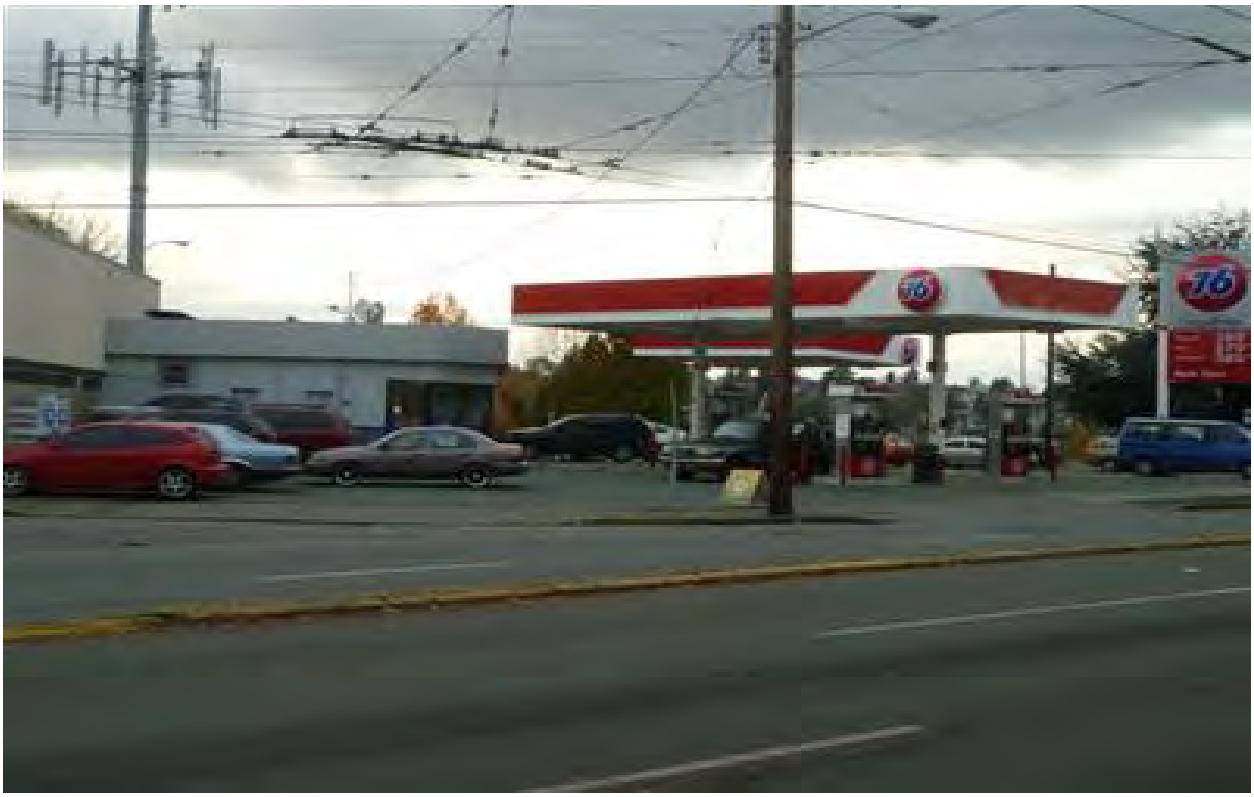
BATCH DATA:

DELIVERY TICKET NO.

REV 4/00 NBF

Appendix C: 2016 Limited Phase I Environmental Site Assessment (42 Sheets)

Limited Phase I Environmental Site Assessment
State Route (SR) 520 Montlake '76 Gasoline and Service Station, Seattle, Washington



For
Washington State Department of Transportation
SR520 Program Offices

Washington State Department of Transportation

February 16, 2016

Limited Phase I Environmental Site Assessment
SR520 Montlake '76 Gasoline and Service Station, Seattle, Washington

Prepared for:

Washington State Department of Transportation
SR520 Program's Project Office

999 3rd Ave Ste 2200
Seattle, WA 98104

Attention: Kevin Tobin

Prepared by:
Washington State Department of Transportation
Environmental Services Office
Hazardous Materials and Solid Waste Program (HazMat Program)
P.O. Box 47332
Olympia, Washington 98504
(360)570-2587

Trent Ensminger, Hazardous Materials Specialist

Washington State Department of Transportation

February 16, 2016

Limited Phase I Environmental Site Assessment
SR520 Montlake '76 Gasoline and Service Station

EXECUTIVE SUMMARY

The WSDOT HazMat Program has performed a Limited Phase I Environmental Site Assessment (ESA) for the Montlake '76 Gasoline and Service Station, located at 2625 East Montlake Place East in Seattle, Washington, 98112 within Township 25 North, Range 4 East and Section 21, and registered with the King County Assessor as Tax Parcel Number 8805901085. The Montlake '76 Gasoline and Service Station and associated footprint are herein referred to as the "Subject Property." This Limited Phase I ESA was prepared in general accordance with the scope of work agreed upon by the WSDOT SR520 Program's Office and the HazMat Program and in general accordance with American Society for Testing and Materials (ASTM E) Part E, 1527-13.

The scope of work under which this Limited Phase I ESA was prepared deviates from ASTM E 1527-13. It was requested that there be no contact with the property owner or associated relations. In addition, no site reconnaissance was conducted as part of this Limited Phase I ESA. To fully qualify as an official Phase I ESA per ASTM E 1527-13 guidelines, interviews with property owners and a complete site reconnaissance would be required to satisfy ASTM standards; therefore, this report only qualifies as a Limited Phase I ESA.

The purpose of this Limited Phase I ESA was to evaluate the existence of Recognized Environmental Conditions (RECs[1]) resulting from past or present land use of the Subject Property, or potential RECs within the vicinity of the Subject Property which may pose a liability to the WSDOT SR520 I-5 to Medina: Bridge Replacement and High Occupancy Vehicle (HOV) Project. The objective of this assessment was to determine if an additional environmental investigation was warranted for the Subject Property prior to further consideration of potential property acquisition.

The Subject Property and the surrounding area are characterized as predominantly residential with some structures used for commercial purposes. Based on the results of the Ecology online investigation, 6 potential RECs from adjacent properties were identified and eliminated from further consideration as presented in Section 5; however the Subject Property qualifies as a REC

[1] The term Recognized Environmental Condition is defined in ASTM E1527-13 as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not recognized environmental conditions." Hazardous or dangerous wastes or substances and release reporting requirements are defined by the Washington State Model Toxics Control Act (MTCA) (Ecology 2007a and 2007b), Washington Administrative Code (WAC) 173-340, and the Washington Dangerous Waste Regulations (Ecology 2009), WAC 173-303.

because of the historic and current site use as a service and gasoline station and was ranked with a low to moderate risk.

The Subject Property was listed on Ecology's Underground Storage Tank (UST) database; however, there was no known environmental documentation identified during this investigation indicating that an inadvertent spill or release was present at the site. Ecology's UST database references four USTs that were installed in various dates. UST -1 is an active 10,000-gallon single walled unleaded gasoline tank installed in 1975; UST –2 is an active 10,000-gallon single walled unleaded gasoline tank installed in 1962; UST – 3 is an active 5,000-gallon single walled unleaded gasoline tank installed in 1952; and UST – 4 is 300-gallon used waste oil tank that was installed in 1975 but later closed in place with an unknown date.

Although there was no known environmental documentation to suggest any spills or releases at the Subject Property, due to the historic land use as a gasoline and service station, there is no certainty that the USTs have not failed and caused a release.

Unless negotiated in future purchase agreements, if the Subject Property is acquired, WSDOT would assume liability of any and all unknown contamination from past or present use of the site such as USTs and/or the service station. The site would require proper decommissioning of all USTs and cleanup of any inadvertent discovery of contaminated soil or groundwater that may pose a threat to human health and/or the environment.

In addition, all structures that may involve renovation or demolition would require an investigation to determine if they contain hazardous materials that would need to be managed and disposed of appropriately.

- Lead Based Paint (LBP)
- Asbestos Containing Material (ACM)
- Polychlorinated Biphenyl (PCBs)
- Mercury Switches

A Good Faith Asbestos Survey is required prior to any renovation or demolition of structures pursuant to the Puget Sound Clean Air Agency (PSCAA) Regulation III, Article 4 and in accordance with the Washington Industrial Safety and Health Act (WISHA) Regional Directive 23.35 dated January 31, 2001, a determination whether asbestos and other hazardous materials are present at the work site must be identified and documented as referenced in Washington Administrative Code (WAC) WAC 296-155-775.

The following recommendations are provided as a result of the findings and conclusions of this assessment.

- It is recommended that prior to any purchase agreement, a WSDOT representative contact the property owner and request full disclosure of site history with regards to the past or present storage, release or disposal of hazardous, toxic, or radiological waste on the Subject Property.

- It is recommended that prior to any purchase agreement that a WSDOT representative conducts a formal site reconnaissance to verify that no hazardous, toxic, or radiological waste had been stored, released, or disposed of on the Subject Property presently or in the past.

- It is recommended that the Project conduct a Phase II ESA to determine if the USTs have failed and released petroleum hydrocarbons into the surrounding soils and/or groundwater; and to verify that no illegal dumping has taken place on or around the Subject Property that could pose a future financial risk and liability.

- It is recommended that prior to demolition or renovation, that an Asbestos Hazard Emergency Response Act (AHERA) Building Inspector conducts a Good Faith Asbestos Survey with the intent of complying with and providing an AHERA-level assessment in accordance with Environmental Protection Agency (EPA) 40 CFR 763, and Washington State Department of Labor and Industries (L&I) standards, WAC 296-62-07721(2)(b)(ii).

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Limited Phase I Environmental Site Assessment
SR520 Montlake '76 Gasoline and Service Station

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Figures

List of Appendices

Acronyms and Abbreviations

AAI	All Appropriate Inquiries
AHERA	Asbestos Hazard Emergency Response Act
AST	Aboveground Storage Tank
ASTM E 1527-13	American Society for Testing and Materials Standard Practice for Environmental Site Assessments: Phase I Environmental Assessment Process, Designation: E 1527-13
bgs	Below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CSCSL	Confirmed and Suspected Contaminated Sites List
CUL	Clean Up Level
EPA	Environmental Protection Agency
Ecology	Washington State Department of Ecology
ESA	Environmental Site Assessment
ft bgs	Feet below ground surface
HazMat Program	Hazardous Materials and Solid Waste Program
L&I	Washington State Department of Labor and Industries
LUST	Leaking underground storage tank
MTCA	Model Toxics Control Act
Phase I ESA	Phase I Environmental Site Assessment
PSCAA	Puget Sound Clean Air Agency
RCRA	Resource Conservation and Recovery Act
REC	Recognized environmental condition
ROW	Right-of-Way
Subject Property	Montlake 76'Gasoline and Service Station and associated right-of-way
USGS	United States Geological Survey
UST	Underground storage tank
WAC	Washington Administrative Code
WSDOT	Washington State Department of Transportation

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1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE OF WORK

This letter report presents the results of a Limited Phase I Environmental Site Assessment (Phase I ESA) prepared by the Washington State Department of Transportation (WSDOT) Hazardous Materials and Solid Waste Program (HazMat Program) at the request of the SR520 Program's Project Office regarding the Montlake '76 Service Station, currently owned by the Stelters. The Montlake '76 Gasoline and Service Station is located at 2625 East Montlake Place East in Seattle, Washington, 98112 within Township 25 North, Range 4 East and Section 21, and registered with the King County Assessor as Tax Parcel Number 8805901085. The Montlake '76 Service Station and associated footprint is herein referred to as the "Subject Property." Refer to Figure 1 for a Site Vicinity Map of the Montlake '76 Gasoline and Service Station.

The purpose of this Limited Phase I ESA was to evaluate the existence of Recognized Environmental Conditions (RECs[1]) resulting from past or present land use of the Subject Property, or potential RECs within the vicinity of the Subject Property which may pose a liability to the WSDOT SR520 I-5 to Medina: Bridge Replacement and HOV Project. The objective of this assessment was to determine if an additional environmental investigation was warranted for the Subject Property prior to further consideration of potential property acquisition.

Although this Limited Phase I ESA was conducted to fulfill WSDOT's due diligence using some of the required processes of the American Society for Testing and Materials Standard Practice for Environmental Site Assessments: Phase I Environmental Assessment Process, Designation: E 1527-13 (ASTM 1527-13), the limited use of ASTM 1527-13 as presented in this report will not meet 40 CFR Part 312, Standards and Practices for All Appropriate Inquiries (AAI) to qualify as an innocent landowner, contiguous property owner or bona fide prospective purchaser under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Landowner Liability Protections. Under CERCLA, persons may be held strictly liable for releases or threatened release of hazardous substances at properties they owned or operated at the time of release.

The following is a general agreed upon scope of work and consists of the following work tasks:

- Reviewing the results of a federal, state, and tribal environmental database search accessed by the Washington State Department of Ecology's (Ecology) online databases

[1] The term Recognized Environmental Condition is defined in ASTM E1527-13 as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not recognized environmental conditions." Hazardous or dangerous wastes or substances and release reporting requirements are defined by the Washington State Model Toxics Control Act (MTCA) (Ecology 2007a and 2007b), Washington Administrative Code (WAC) 173-340, and the Washington Dangerous Waste Regulations (Ecology 2009), WAC 173-303.

for listings of sites with known or suspected environmental conditions on or near the Subject Property within the recommended search distances specified by ASTM E 1527-13.

- Reviewing if accessible, online regulatory agency files regarding listed sites of potential environmental concern relative to the Subject Property.

- Reviewing if accessible, historical aerial photographs, fire insurance maps, Sanborn maps, still photographs, and county assessor site and tax assessor records, to identify past development history on and adjacent to the Subject Property relative to the possible use, generation, storage, release or disposal of hazardous substances.

- Providing a brief preliminary summary of the Limited Phase I ESA results and identified RECs, including an opinion regarding the potential for encountering hazardous materials at the Subject Property during construction, and a recommendation regarding further investigation.

1.2 Special Terms and Conditions

The scope of work under which this Limited Phase I ESA was prepared deviates from ASTM E 1527-13. It was requested that there be no contact with the property owner or associated relations. In addition, no site reconnaissance was conducted as part of this Limited Phase I ESA. To fully qualify as an official Phase I ESA per ASTM E 1527-13 guidelines, interviews with property owners and a complete site reconnaissance would be required to satisfy ASTM standards; therefore, this report only qualifies as a Limited Phase I ESA.

1.3 Significant Assumptions

The conclusions of this Limited Phase I ESA are based on research of readily available current and historic information sources. WSDOT cannot and does not warrant or guarantee that the information provided by these sources is accurate or complete. Whenever possible, WSDOT researched more than one information source in order to substantiate the findings and conclusions of this assessment.

1.4 Limitations and Exceptions

This Limited Phase I ESA report was prepared for the exclusive use of the WSDOT SR520 Program's Project Office. This report is intended to provide the authorized user with an understanding of the potential environmental liabilities associated with the properties as evaluated in this report. The opinions and conclusions set forth in this report are strictly limited to the scope of our services at the time they were conducted. Determining whether environmental conditions defined in this report indicate the presence of contamination at levels of concern is a matter of judgment. Liabilities associated with contaminated sites are defined in part by CERCLA, and for properties located in Washington State, by MTCA.

1.5 Users Reliance

No other party other than the WSDOT SR520 Program's Project Offices are entitled to rely on the information, conclusions, and recommendations included in this Limited Phase I ESA without the express written consent of the WSDOT HazMat Program. The reuse of the

information, conclusions, and recommendations provided in this Limited Phase I ESA outside its intended purpose, and without review and authorization by the WSDOT HazMat Program, shall be at the user's sole risk. No warranty or other conditions expressed or implied should be understood.

Any electronic form, facsimile or hard copy of the original document whether email, text, table, and or figure, if provided, and any attachments are only a copy of the original document. The original document is stored by the WSDOT HazMat Program and will serve as the official document of record.

2.0 SITE DESCRIPTION

2.1 LOCATION, LEGAL DESCRIPTION AND SETTING

General site information, including property use and environmental setting of the Subject Property is summarized in Table 1 below.

Table 1. Montlake '76 Gasoline and Service Station General Site Information

Topographic Map	U.S. Geological Survey, 7.5 minute Seattle North Quadrangle, Washington topographic quadrangle map dated 2014. *(*www.geonames.usgs.gov*)*
Quarter, Section, Township and Range	Northeast quarter of Township 25 North, Range 4 East and Section 21
Site Address and Site General Location	2625 East Montlake Place East in Seattle, Washington, 98112
Site Legal Description	UNION CITY ADD POR OF CANAL RES LY BET 22D N & W MONTLAKE PL & N OF ROANOKE ST & S OF NORTH ST LESS POR S OF A LN BEG 89.63 FT N OF SE COR SD TRACT TH DUE W 108 FT TH NWLY 57 FT TO W MONTLAKE PL
Site Approximate Area	Land Sq. Ft. approximately 10,500 / 0.24 acres
Site Existing Use	Service Station and Gasoline Station.
Geologic Setting	Seattle North Quadrangle. See 2.2 for more detailed information of the geologic and hydrologic settings for the project area.
Nearest Surface Water Bodies	The Subject Property resides between four major water bodies, Union Bay to the northeast, Lake Washington to the east and southeast, Portage Bay to the northwest, and Lake Union to the west.
Approximate Surface Elevation	Surface elevation is approximately 92 ft above mean sea level.
Soil and Geologic Conditions	Subsurface conditions are described below in section 2.2.
Depth to Groundwater	Depth to groundwater in the vicinity ranges from 13 - 80 ft bgs
Inferred Direction of Shallow Ground Water Flow	Based on topography, groundwater is inferred to flow in a westerly to northwesterly direction towards Portage Bay.

Our knowledge of the general physiographic setting, geology, and groundwater occurrence in the vicinity of the Subject Property is based on our review of maps, reports, and our general experience in the area. The reference to "upgradient," and "downgradient," with respect to the direction of groundwater flow is inferred based on the information below, and assumptions of the relative proximity of significant water bodies in the vicinity.

2.2 GEOLOGIC AND HYDROLOGIC SETTING

This section describes the general geologic setting and subsurface conditions within the project area. The information is used to determine the potential for contamination to migrate through the soils and groundwater and impact the Subject Property.

The Subject Property resides within the Puget Lowland geographic Province, located between the Olympic Mountain Range to the west and the Cascade Range to the east. The current topography of the lowland is primarily the result of surface scouring, subglacial trough erosion, and sedimentary deposition from the most recent glacial advance, known as the Vashon Stade of the Fraser Glaciation (Elder and Cascella, 2013).

Based on topography, groundwater is inferred to flow in a westerly to northwesterly direction towards Portage Bay. Review of the Washington State Department of Ecology's Well Log database accessed on February 1, 2016 indicated that groundwater in the vicinity ranges from 13 – 80 feet (ft.) below ground surface (bgs) depending on the well location.

2.3 CURRENT USE OF THE PROPERTY

The Subject Property is currently being used as a '76 Gasoline and Service Station.

3.0 PROPERTY / SITE VICINITY HISTORY

3.1 HISTORICAL RESOURCES

The objective of reviewing historical documentation is to develop a history of previous land uses for the Subject Property and surrounding properties, and to assess these uses for potential hazardous materials impacts that may constitute as a REC. Our understanding of the history of the Subject Property is based on a review of the information from the historical resources listed in Table 3.

Table 3. Historical Resources Reviewed

Description	Provider or Interviewee	Dates of Coverage or Dates of Site Knowledge	Date Reviewed or Contacted	Comment (See Section 4.2 for findings)
Historical Aerial Photographs[1]	www.historicaerial.com Google.com	2006 2014	1/2016 1/2016	See Section 3.2 for additional details regarding the Aerial Photograph review.
Historical City Directories	N/A	--	2/1/2016	No City Directories were identified that were readily accessible as part of this investigation for the Subject Property.
Sanborn Fire Insurance Maps	Seattle Public Library	1930	2/1/2016	See Section 3.2 for additional details regarding the Sanborn Map review.
Historic Topographic Maps	geonames.usgs.gov	1897, 1936 reprint, 1949, and 2014	1/2016	See Section 3.2 for additional details regarding the Topographic Map review.
Historic Real Estate Maps / Plan Sheets	WSDOT Real Estate Maps	1961 and 1970	2/1/2016	See Section 3.2 for additional details regarding the Plan Sheet review / Real Estate Maps.
King County Tax Assessor Records	Online Review	Recent	1/2016	See Section 3.2 for additional details regarding the Subject Property.

[1]The scale of the photographs reviewed allowed for an interpretation of general site development/configuration, such as identifying most structures, roadways and clearings. However, the scale of the photographs and/or pictures did not always allow for identification of specific site features, such as fuel pumps, wells or chemical storage areas on the site, if any.

3.2 HISTORICAL SITE USE SUMMARY

The Subject Property vicinity can primarily be characterized as residential with limited commercial buildings. Historically, the Subject Property has been operated as a grocery store and gasoline station as early as 1926 called Pettingill's Associated Service, until the original building was demolished and a new building constructed approximately 1952 and called Dale and Jim's Montlake Flying A Service Station, which was then remodeled in 1980 to include a multi-bay garage for auto services.

3.2.1 HISTORIC WSDOT REAL ESTATE MAPS / PLAN SHEETS

Historical Real Estate Maps provide an overview of the area relative to potential previous land uses prior to construction, including proposed property acquisitions. Real Estate Maps dated 1961 and 2014 were reviewed. These plans sheets were obtained from WSDOT's internal online database on February 1, 2016 and can be viewed in Appendix A.

1961 and 2014 Real Estate Maps / Plan Sheets

The review identified two 1961 Map / Plan Sheets titled "Roanoke Connection, 10th Avenue North to Montlake Interchange (Sheet 5 of 5) and (Sheet 1 of 5)" showing the existing location of two structures, the current Hop-In Grocery Store and a '76 Gasoline and Service Station that has two overhangs covering the pump islands. It appears there may be three to four underground storage tanks (USTs) as identified on the map Sheet 5 of 5. Residential houses are located to the east of the Subject Property.

The 2014 Plan Sheet Map titled, "SR520 Montlake Interchange Vicinity to Arboretum Interchange Vicinity" shows the Subject Property and surrounding areas are generally unchanged from the 1961map.

3.2.2 HISTORICAL TOPOGRAPHIC MAPS

Historical topographic maps provide an overview of the area relative to potential previous land uses. Historical topographic maps dated 1897, 1936 reprint, 1949, and 2014 were reviewed for the Subject Property vicinity. These maps were viewed from https://geonames.usgs.gov and www.historicaerials.com accessed on February 1, 2016 and all obtainable maps can be viewed in Appendix B.

1897 and 1936 Maps

The 1897 and 1936 maps are similar and will be summarized below. The maps show the Subject Property and surrounding areas in the vicinity of the Montlake Bridge as unpopulated and unimproved with exception of a single dwelling.

1949 and 2014 Maps

The 2014 map shows that the surrounding areas are generally unchanged from the 1949 topographic map with the exception of increase in dwellings and the construction of the SR520 highway.

3.2.3 HISTORIC SANBORN MAP

Sanborn Fire Insurance maps are produced by private fire insurance companies to indicate historical uses. As referenced in Appendix C, the 1930 Sanborn Map identifies three structures. Two structures appear to be stores, and the structure closest to East Montlake Place is labeled gas and oil which appears to be where the original pump island was located. An additional gasoline station resided northwest of the Subject Property across from West Montlake Place.

3.2.4 AERIAL PHOTOGRAPHS

Historical aerial photographs are valuable for the environmental assessor to review features on and near the Subject Property over a significant period of time. A 1936 and 1968 aerial was viewed and recorded from www.historicaerials.com and http://gismaps.kingcounty.gov as part of this study for the Subject Property. The 1936 aerial showed three major structures at the center of the northern edge of the property splitting the East Montlake Place roadway and the future location of the SR520 highway. Multiple residential dwellings are located to the north, east, south and west of the Subject Property. The 1968 aerial showed the current Hop-In Grocery Store and the Service and Gasoline station prior to the 1980's remodel. All photos that were readily obtainable can be viewed in Appendix D.

4.0 USER PROVIDED INFORMATION

4.1 TITLE RECORDS, DEEDS AND LIENS

According to the King County Assessor website, there are currently no deed restrictions for this parcel regarding the Subject Property.

5.0 ENVIRONMENTAL RECORDS REVIEW

5.1 DEPARTMENT OF ECOLOGY WEBSITE DATABASE REVIEW

An online review of the Washington State Department of Ecology's Facility Site Database website[2] was conducted to identify possible RECs. The federal, state, and tribal environmental databases that were searched and their associated ASTM E 1527-13 minimum search distances, are set forth in section 8.2.1 of ASTM E 1527-13., are described in Table 4.

Table 4: ASTM E 1527 -13 Standard Environmental Record Sources

Record Source Abbreviation	Agency	Search Distances	Description
Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)	USEPA	½ mile	The CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies, and private persons and lists sites that are either proposed for or on the National Priorities List.
National Priorities List (NPL)	USEPA	1 mile	The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program.
CERCLIS NFRAP	USEPA	½ mile	The CERCLIS-NFRAP contains data on CERCLIS sites that have been listed for no further remedial action is planned.
Resource Conservation and Recovery Act (RCRA)	USEPA	1 mile	The RCRA database includes selective information on large and small quantity (RCRA SQG and RCRA LQG) generators of hazardous waste as well as treatment, storage, and disposal (TSD) facilities as defined by the Resource Conservation and Recovery Act. If a site is identified as a RCRA generator, it does not mean that a release of hazardous materials has occurred at the site; however, the presence of these materials at a site increases the potential that a release could occur.
RCRA non-CORRACTS TSD (Transporter, Storage and Disposal)/RCRA-TSDF (RCRA- Treat, Store and Dispose)	USEPA	½ mile	RCRA non-CORRACTS TSD database identifies sites which generate, transport, store, treat or dispose of hazardous waste as defined by RCRA.
RCRA Corrective Action Report (CORRACTS)	USEPA	1 mile	The CORRACTS database identifies hazardous waste handlers with RCRA corrective action activity.
US Institutional/Engineering Controls (US INST CONTROL or US ENG CONTROLS)	USEPA	Property only	The US INST CONTROL or US ENG CONTROLS is listing of sites with institutional or engineering controls in place.

[2]Ecology's Facility Site Online Database was accessed on January 11, 2016 at: http://www.ecy.wa.gov/fs/index.html. The Facility/Site Database identifies Ecology regulated facilities such as: State Cleanup sites, Federal Superfund sites, Hazardous Waste Generators, Solid Waste Facilities, Underground Storage Tanks, and Dairies.

Table 4: ASTM E 1527 -05 Standard Environmental Record Sources (Continued)			
Record Source Abbreviation	Agency	Search Distances	Description
Emergency Response Notification System (ERNS)	U.S. EPA	Property only	The ERNS records and stores information on reported releases of oil and hazardous substances.
Confirmed and Suspected Contaminated Sites List (CSCSL)/State Hazardous Waste Site (SHWS)	Ecology	½ mile	The CSCSL/SHWS is a listing of the State Hazardous Waste Sites, which is Washington's equivalent to the federal CERCLIS list. The sites have known or suspected contamination. The type of media affected and type of contaminant are typically listed in the database.
Landfill & Solid Waste Facilities (State Landfill)	Ecology	½ mile	The state landfill records contain an inventory of solid waste disposal facilities or landfills in Washington. These may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.
Underground Storage Tank(UST) Database	Ecology	Property & adjoining properties	USTs are regulated by Subtitle I of RCRA and most must be registered with Ecology. The UST database contains information on the site location, number of tanks present, materials stored, dates of installation and removal, and other pertinent information for registered USTs. Sites identified in this database include only those registered with Ecology as containing regulated substances. This database does not include underground residential heating fuel tanks or tanks used for farm applications.
Leaking Underground Storage Tank (LUST) Site List	Ecology	½ mile	The LUST list contains an inventory of reported leaking UST incidents. The LUST list may also identify the type of material released and the affected media (e.g., air, soil, or water).
Washington Independent Cleanup Report (WA ICR) Voluntary Cleanup Program Sites (VCP)	Ecology	½ mile	The WA ICR lists sites that have submitted independent remedial action reports to Ecology. The VCP database includes sites that have entered into the state Voluntary Cleanup Program or its predecessor Independent Remedial Action Program.
Brownfield sites	Ecology	½ mile	A listing of Brownfield sites included in the CSCSL/SHWS. Brownfield sites are abandoned, idle or underused commercial or industrial properties, where the expansion or redevelopment is hindered by real or perceived contamination.

The Ecology online database review identified 7 listed sites Montlake Texaco (also known as Hart Service Centers Inc. and currently Northwest Automotive and Union 76' Station), Facility Site (FS) # 47724816; AT&T Wireless, FS # 6897318; Pro Robics, FS # 5009384; US Doc NOAA NW Fisheries Science, FS # 43881153; Seattle Yacht Club, FS # 7653881; US DOT CG Hamlin St, FS # 59477676 and WA DOT SR520 24th WABN, FS # 24847) within a ¼ mile radius search of the Subject Property that potentially qualified as a REC. The Subject Property is listed on Ecology's UST database and referenced as Montlake Texaco. A site map and listed sites identified as potential RECs can be viewed in Appendix E.

A representative from the HazMat Program reviewed each site using a screening process to identify RECs where it was likely that contamination was contributed from an offsite source or

would be encountered during construction either by excavation and/or dewatering. A site may pose a liability to the project if the site is located within close proximity (immediately adjacent to the proposed project area), hydraulically upgradient, or has a confirmed release of hazardous materials or petroleum products to the surface or subsurface groundwater (¼ mile or less in distance). The ¼ mile radius was selected because it reasonably encompasses the areas from which contamination could be expected to migrate to the project footprint based on topographic and hydrologic conditions.

Six of the seven sites were considered to have a very low likelihood of impacting the Subject Property, and were eliminated from further consideration due to one or more of the following reasons: they were hydraulically downgradient and too far from the project area; the site has been remediated below MTCA cleanup levels and issued a No Further Action, or the site only had contaminated soil and/or was not immediately adjacent to the property footprint.

The Subject Property does qualify as a potential REC because of historic and current site use as a gasoline and service station. Ecology's UST database references four USTs that were installed in various dates. UST -1 is an active 10,000-gallon single walled unleaded gasoline tank installed in 1975; UST –2 is an active 10,000-gallon single walled unleaded gasoline tank installed in 1962; UST – 3 is an active 5,000-gallon single walled unleaded gasoline tank installed in 1952; and UST – 4 is 300-gallon used waste oil tank that was installed in 1975 but later closed in place with an unknown date.

Risk analyses were performed on the 7 sites identified as possible RECs to determine their level of potential impact to the Subject Property and potential for cleanup liability. Each site was assigned either a "low impact," "moderate impact," or "high impact" ranking. Based on the risk analyses performed for the 7 potential sites of concern, 6 of the 7 sites were assigned a low impact ranking and eliminated as RECs that could impact the Subject Property. Even though there is currently no evidence of a known or suspected release at the Subject Property, the Subject Property was ranked a low to moderate because of the historic and current land use.

Type of Impact

Low Impact: This risk level identified RECs where the likelihood for the site to impact the Subject Property is low because there was no evidence to suggest that groundwater from the REC has impacted, or the contamination from offsite migration is not expected to impact the Subject Property.

Moderate Impact: This risk level identified RECs where the likelihood for the site to impact the Subject Property is moderate because of type or extent of contaminant, groundwater from the REC is impacted and has the potential to impact the Subject Property from offsite migration of groundwater, but there is no conclusive evidence.

High Impact: This risk level identified RECs where the likelihood for the site to impact the Subject Property is high, contamination is known to be extensive and conclusive evidence has indicated that the REC has directly impacted the Subject Property.

5.2 ECOLOGY FILE REVIEWS

No Ecology file reviews were conducted on behalf of this Limited Phase I ESA because the sites were either eliminated as RECs, or the initial investigation determined there was no further information available to review.

6.0 SUMMARY OF FINDINGS AND OPINION

The WSDOT HazMat Program has performed a Limited Phase I ESA for the Montlake '76 Gasoline and Service Station, located in Seattle, Washington within Township 25N, Range 4E and Section 21. This Limited Phase I ESA was prepared in general accordance with the scope of work agreed upon by the WSDOT SR520 Program's Office and the HazMat Program and in general accordance with ASTM E 1527-13.

The purpose of this Limited Phase I ESA was to evaluate the existence of RECs resulting from past or present land use of the Subject Property, or potential RECs within the vicinity of the Subject Property which may pose a liability to the WSDOT SR520 I-5 to Medina: Bridge Replacement and HOV Project. The objective of this assessment was to determine if an additional environmental investigation was warranted for the Subject Property prior to further consideration of potential property acquisition.

The Subject Property and the surrounding area are characterized as predominantly residential with some structures used for commercial purposes. Based on the results of the Ecology online investigation, 6 potential RECs from adjacent properties were identified and eliminated from further consideration as presented in Section 5; however the Subject Property does qualify as a REC because of historic and current site use as a service and gasoline station and was ranked with a low to moderate risk.

Ecology's UST database references four USTs that were installed in various dates. UST -1 is an active 10,000-gallon single walled unleaded gasoline tank installed in 1975; UST –2 is an active 10,000-gallon single walled unleaded gasoline tank installed in 1962; UST – 3 is an active 5,000-gallon single walled unleaded gasoline tank installed in 1952; and UST – 4 is 300-gallon used waste oil tank that was installed in 1975 but later closed in place with an unknown date.

7.0 CONCLUSIONS

The following conclusions are based on the summary findings of the limited investigation and opinions provided above. Based off the Ecology database review, there is a very low likelihood that the known listed sites from adjacent properties in the vicinity of the Subject Property have directly impacted the property. The Subject Property itself was listed on Ecology's UST database; however, there was no known environmental documentation identified during this investigation indicating that an inadvertent spill or release was present at the site.

Although there was no known environmental documentation to suggest any spills or releases at the Subject Property, because of the historic land use as a gasoline and service station, there is no certainty that the USTs have not failed and caused a release. Ecology's UST database references four USTs that were installed in various dates.

Unless negotiated in future purchase agreements, if the Subject Property is acquired, WSDOT would assume liability of any and all unknown contamination from past or present use of the site such as USTs and/or the service station. The site would require the proper decommissioning of all USTs and cleanup of any inadvertent discovery of contaminated soil or groundwater that may pose a threat to human health and/or the environment.

In addition, all structures that may involve renovation or demolition will require an investigation to determine if they may contain hazardous materials that will need to be managed and disposed of appropriately.

- Lead Based Paint (LBP)
- Asbestos Containing Material (ACM)
- Polychlorinated Biphenyl (PCBs)
- Mercury Switches

A Good Faith Asbestos Survey is required prior to any renovation or demolition of structures pursuant to the Puget Sound Clean Air Agency (PSCAA) Regulation III, Article 4 and in accordance with the Washington Industrial Safety and Health Act (WISHA) Regional Directive 23.35 dated January 31, 2001, a determination whether asbestos and other hazardous materials are present at the work site must be identified and documented as referenced in Washington Administrative Code (WAC) WAC 296-155-775.

8.0 RECOMMENDATIONS

The following recommendations are provided as a result of the findings and conclusions of this assessment.

- It is recommended that prior to any purchase agreement; a WSDOT representative contacts the property owner and request full disclosure of site history with regards to the past or present storage, release or disposal of hazardous, toxic, or radiological waste on the Subject Property.

- It is recommended that prior to any purchase agreement that a WSDOT representative conducts a formal site reconnaissance to verify that no hazardous, toxic, or radiological waste had been stored, released, or disposed of on the Subject Property presently or in the past.

- It is recommended that the Project conduct a Phase II ESA to determine if the USTs have failed and released petroleum hydrocarbons into the surrounding soils and/or groundwater; and to verify that no illegal dumping has taken place on or around the Subject Property that could pose a future financial risk and liability.

- It is recommended that prior to demolition or renovation, that an AHERA Building Inspector conducts a Good Faith Asbestos Survey with the intent of complying with and providing an AHERA-level assessment in accordance with Environmental Protection Agency (EPA) 40 CFR 763, and Washington State Department of Labor and Industries (L&I) standards, WAC 296-62-07721(2)(b)(ii).

9.0 REFERENCES

Aerial Photographs
http://www.historicaerials.com/

Elder, J. "SR 520 Bridge Replacement and HOV Program, I-5 to Medina: Bridge Replacement and HOV Project Corridor Archaeological Landform Sensitivity Assessment." IFC International, Seattle, WA (2013).

Facility Site Database (Washington State Department of Ecology)
http://www.ecy.wa.gov/fs/index.html

Historic Topographic Maps
www.geonames.usgs.gov

Parcel & Address Search (King County)
http://www.kingcounty.gov/depts/assessor.aspx

Toxic Cleanup Reporting (Washington State Department of Ecology)
https://fortress.wa.gov/ecy/tcpwebreporting/Default.aspx

10.0 QUALIFICATION OF ENVIRONMENTAL PROFESSIONAL

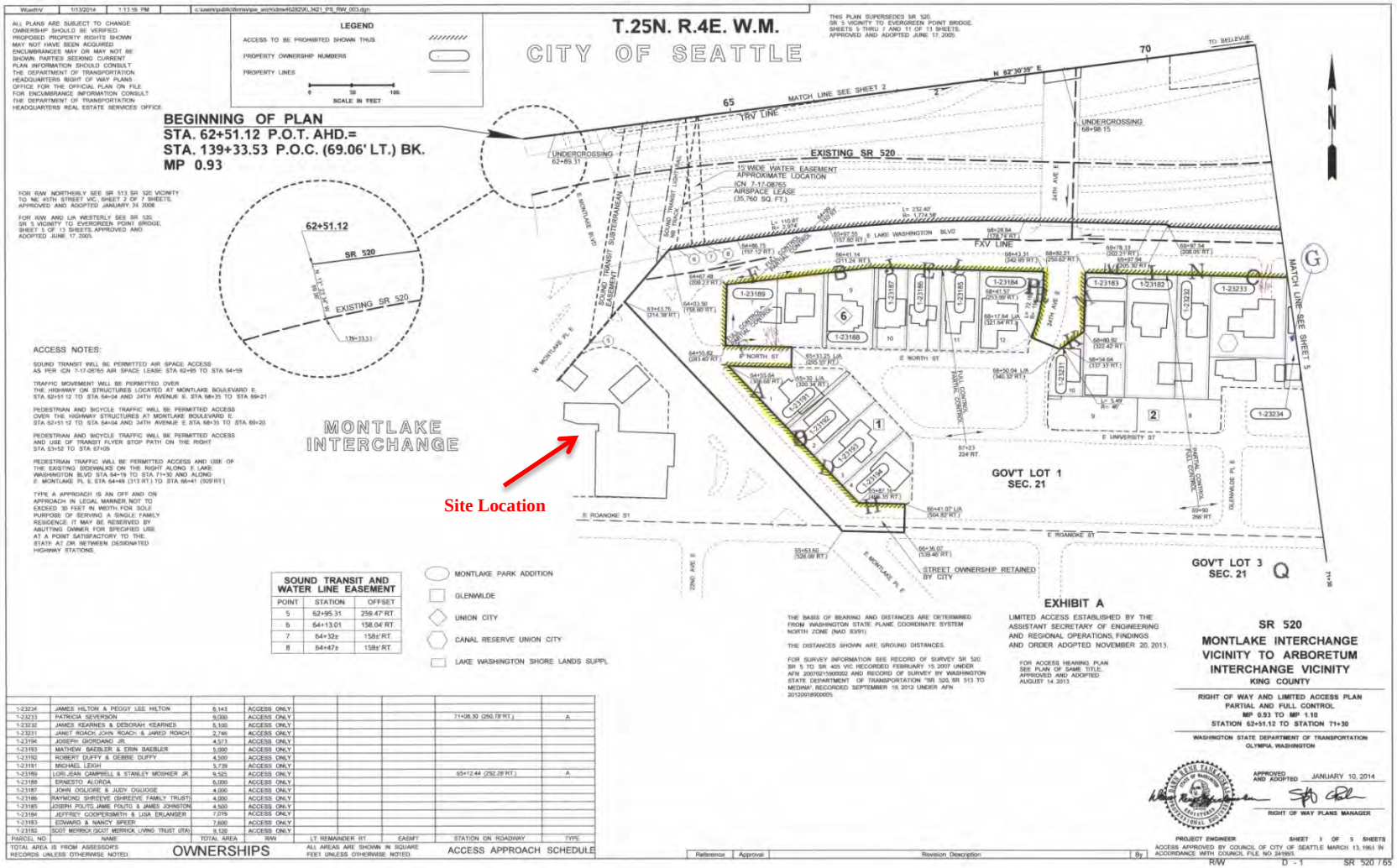
This section presents the qualifications and background of the person or persons preparing the Limited Phase I ESA. The following summary is provided to comply with the ASTM Practice E 1527-13 requirement and that the US EPA's AAI Rule for minimum requirements is met.

We declare to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in 312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR part 312 and ASTM E 1527-13.

Mr. Trent Ensminger holds a Bachelor of Science degree in Biology from Saint Martin's University in Lacey Washington, and has 8 years of full-time relevant experience. Mrs. Jenifer Hill holds a Bachelor of Science degree in Biology and Environmental Studies from Pacific Lutheran University in Tacoma Washington, and has 15 years of full-time relevant experience.

Both professionals are experienced in exercising judgment in developing opinions and conclusions regarding site conditions for WSDOT. Both understand and are experienced in conducting all appropriate investigations, environmental site assessments site investigations, environmental analyses, remediation activities, and evaluating surface and subsurface conditions.

Figure 1 – Site Vicinity Map



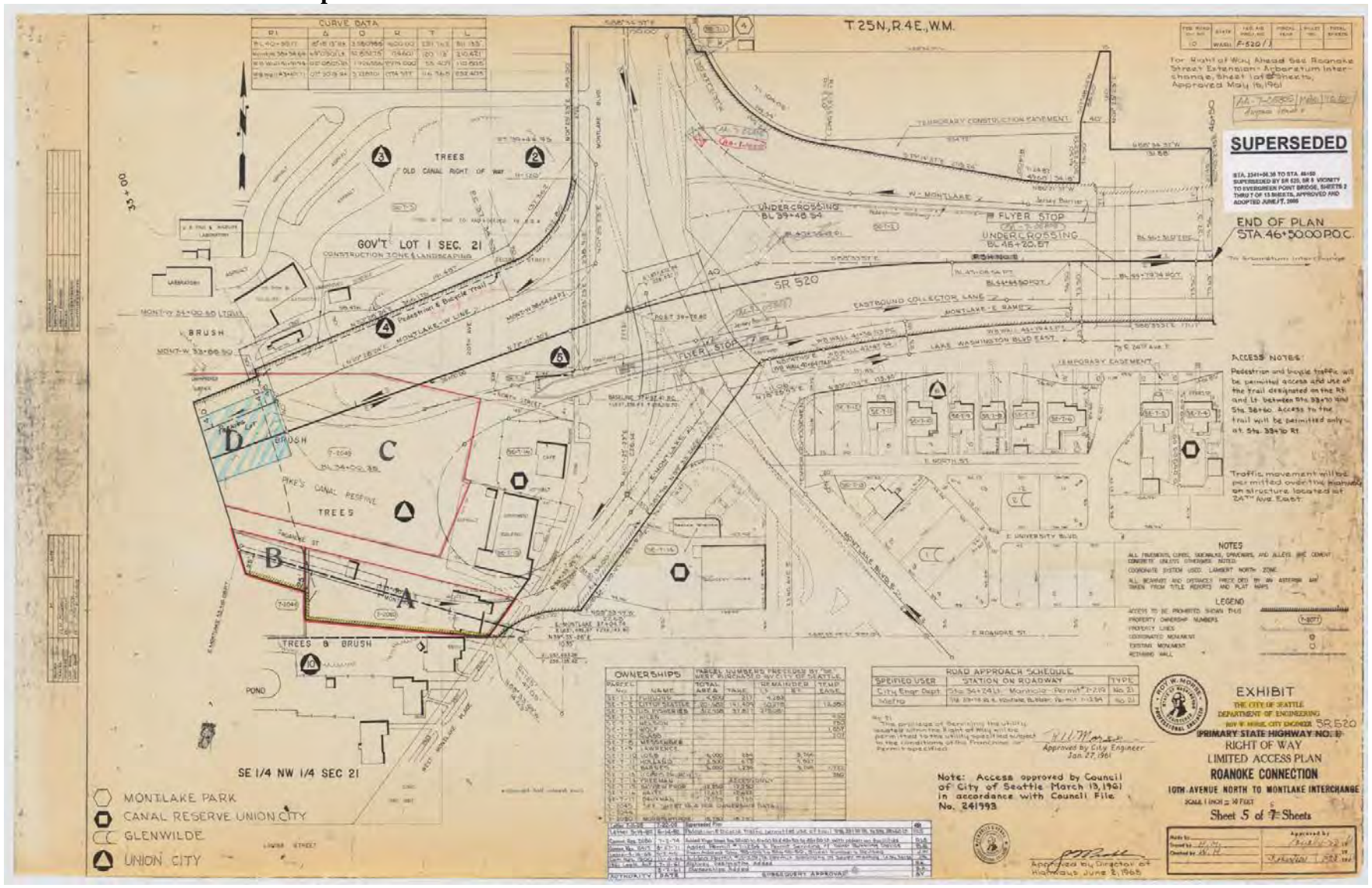
PARCEL NO.	NAME	TOTAL AREA	R/W	LT. REMAINDER RT.	EASMT	STATION ON ROADWAY	TYPE
1-23234	JAMES HILTON & PEGGY LEE HILTON	6,143	ACCESS ONLY				
1-23233	PATRICIA SEVERSON	9,000	ACCESS ONLY			71+08.30 (260.78' RT.)	A
1-23232	JAMES KEARNES & DEBORAH KEARNES	6,100	ACCESS ONLY				
1-23231	JANET ROACH, JOHN ROACH, & JARED ROACH	2,746	ACCESS ONLY				
1-23194	JOSEPH GIORDANO JR.	4,573	ACCESS ONLY				
1-23193	MATHEW BAEBLER & ERIN BAEBLER	5,000	ACCESS ONLY				
1-23192	ROBERT DUFFY & DEBBIE DUFFY	4,500	ACCESS ONLY				
1-23191	MICHAEL LEIGH	5,739	ACCESS ONLY				
1-23189	LORI JEAN CAMPBELL & STANLEY MOSHIER JR	9,525	ACCESS ONLY			65+12.44 (252.28' RT.)	A
1-23188	ERNESTO ALCORZA	6,000	ACCESS ONLY				
1-23187	JOHN OGLIORE & JUDY OGLIORE	4,000	ACCESS ONLY				
1-23186	RAYMOND SHREEVE (SHREEVE FAMILY TRUST)	4,000	ACCESS ONLY				
1-23185	JOSEPH POUTO, JANE POUTO & JAMES JOHNSTON	4,500	ACCESS ONLY				
1-23184	JEFFREY COOPERSMITH & LISA ERLANGER	7,019	ACCESS ONLY				
1-23183	EDWARD & NANCY SPEER	7,600	ACCESS ONLY				
1-23182	SCOT MERRICK (SCOT MERRICK LIVING TRUST UTA)	9,120	ACCESS ONLY				

TOTAL AREA IS FROM ASSESSOR'S RECORDS UNLESS OTHERWISE NOTED. OWNERSHIPS
ALL AREAS ARE SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED. ACCESS APPROACH SCHEDULE

Reference	Approval	Revision Description	By

Appendix A – Historic Real Estate Map

1961 WSDOT Real Estate Map



Appendix B – Historic Topographic Maps

U.S. GEOLOGICAL SURVEY
CHARLES D. WALCOTT, DIRECTOR

WASHINGTON
SEATTLE SHEET

Henry Gannett, Chief Topographer.
R.U. Goode, Geographer in charge.
Control by W.T. Griswold and R.H. Mc Kee.
Topography by G.E. Hyde and R.H. Mc Kee.
Surveyed in 1893-94-95.

Hyde
Mc Kee

ENGRAVED JUNE 1897 BY U.S.G.S.

Scale 1/125000
1 ½ 0 1 2 3 4 5 Miles
1 ½ 0 1 2 3 4 5 Kilometers

Contour interval 50 feet.
Datum is mean sea level.

Edition of Oct. 1897.

SEATTLE

2/50 Dec 30/97

DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

WASHINGTON
SEATTLE QUADRANGLE (Snohomish 1:125000)

122°30' R. 2 E. | 25' | R. 3 E. (Snohomish 1:125000) | 20' | R. 4 E. | 122°15'

47°45' | T. 26 N. | 40' | T. 25 N. | 35' | T. 24 N. | T. 23 N. | 47°30'

Point Jefferson
Spring Beach
Evergreen
Bitter Lake
Shuner
Elbert
Oak Hill School
Meadow Point
Metum
North Pt
Lake
Pontiac
Pontiac Bay
Pontiac
Green Lake
WOODLAND PARK
BALLARD
Salmon Bay
FORT LAWTON
West Point
Skiff Point
Murden Cove
Fourmile Rock
Yemoalt Point
Wing Point
Eagle Harbor
Blakely Harbor
Blakely Rock
Restoration Point
Alki Point
Duwamish Head
West Seattle
SEATTLE
Elliott Bay
Smith Cove
Lake Union
Portage Bay
Union Bay
Webster Point
Foster Island
Laurelhurst Heights
Leschi Park
Faben Pt
East Seattle
Youngstown
Longs Cove
South Seattle
Georgetown
Duwamish River
Point Williams
Foundlery Cove
Brace Point
Point Southworth
Point Vashon
Dolphin Point
Colvos Passage
Andrews Bay
Brighton Beach
Atlantic City
Rainier Beach
Tanasselt
Columbia
Meadowbrook
Longfellow Creek
Thornton Creek
Pipers Creek
Seattle-Everett Interurban R. R.
Northern Pacific R. R.
Great Northern R. R.
Pacific Coast R. R.
Puget Sound Electric R. R.
Magnolia Bluff
Alaska-Yukon-Pacific Exposition
State University
Lakeview Cemetery
Historical Site
War
Kitsap Co / King Co
Bainbridge Island
Blake Island
Vashon Island
Puget Sound

15 Miles
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
½

(Snohomish 1:125000)

ENGRAVED MAR. 1909 BY U.S.G.S.

A. H. Thompson, Geographer.
Topography by R. H. McKee.
Triangulation and coast line by Coast and Geodetic Survey. Surveyed in 1893.
Culture revised 1908 by J. G. Hefty and C. F. Eberly.

APPROXIMATE MEAN DECLINATION 1908.
TRUE NORTH
MAGNETIC NORTH
23°

Scale 1/62500

1 ½ 0 1 2 3 4 Miles
1 ½ 0 1 2 3 4 5 Kilometers

Contour interval 25 feet.
Datum is mean of lower low tide at Seattle.

Edition of May 1909, reprinted 1936
Polyconic projection.

This map made from surveys without spirit level control.

SEATTLE, WASH.

(1900)

1900

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

UNITED STATES
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

SEATTLE NORTH QUADRANGLE
WASHINGTON—KING CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
NE/4 SEATTLE 15′ QUADRANGLE

Mapped by the Army Map Service
Published for civil use by the Geological Survey

Control by USC&GS and King County Engineer office

Topography from aerial photographs by multiplex methods
Aerial photographs taken 1943. Field check 1949

Polyconic projection. 1927 North American datum
10,000-foot grid based on Washington coordinate system, north zone

Red tint indicates areas in which only landmark buildings are shown

No distinction is made between barns, dwellings, commercial and industrial buildings

Unchecked elevations are shown in brown

Dashed land lines indicate approximate locations

APPROXIMATE MEAN DECLINATION, 1949
TRUE NORTH
MAGNETIC NORTH
22½°

SCALE 1:24000
1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 KILOMETER

CONTOUR INTERVAL 25 FEET
DATUM IS MEAN SEA LEVEL
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 11 FEET

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, FEDERAL CENTER, DENVER, COLORADO OR WASHINGTON 25, D. C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ROAD CLASSIFICATION
Heavy-duty — 4 LANE | 6 LANE — Light-duty
Medium-duty — 4 LANE | 6 LANE — Unimproved dirt
U. S. Route — State Route

WASHINGTON
QUADRANGLE LOCATION

SEATTLE NORTH, WASH.
NE/4 SEATTLE 15′ QUADRANGLE
N4737.5—W12215/7.5
1949

U.S. DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

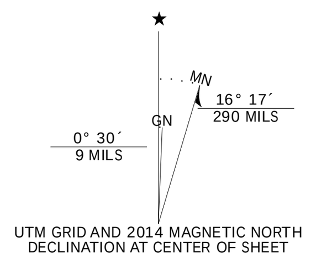
The National Map
US Topo

SEATTLE NORTH QUADRANGLE
WASHINGTON-KING CO.
7.5-MINUTE SERIES

Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid: Universal Transverse Mercator, Zone 10T
10 000-foot ticks: Washington Coordinate System of 1983 (north zone)

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

Imagery....................NAIP, August 2011
Roads....................©2006-2013 TomTom
Names....................GNIS, 2013
Hydrography....................National Hydrography Dataset, 2011
Contours....................National Elevation Dataset, 1999
Boundaries....................Census, IBWC, IBC, USGS, 1972 - 2012
Public Land Survey System....................BLM, 2011



UTM GRID AND 2014 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

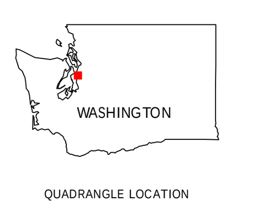
U.S. National Grid
100,000-m Square ID
ET
Grid Zone Designation
10T

SCALE 1:24 000

KILOMETERS · METERS · MILES · FEET

CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.15



QUADRANGLE LOCATION

Edmonds West	Edmonds East	Bothell
Shilshole Bay	Seattle North	Kirkland
Duwamish Head	Seattle South	Mercer Island

ADJOINING 7.5' QUADRANGLES

ROAD CLASSIFICATION

Expressway · Local Connector
Secondary Hwy · Local Road
Ramp · 4WD
Interstate Route · US Route · State Route

SEATTLE NORTH, WA
2014

NSN. 7643016402541
NGA REF NO. USGSX24K40400

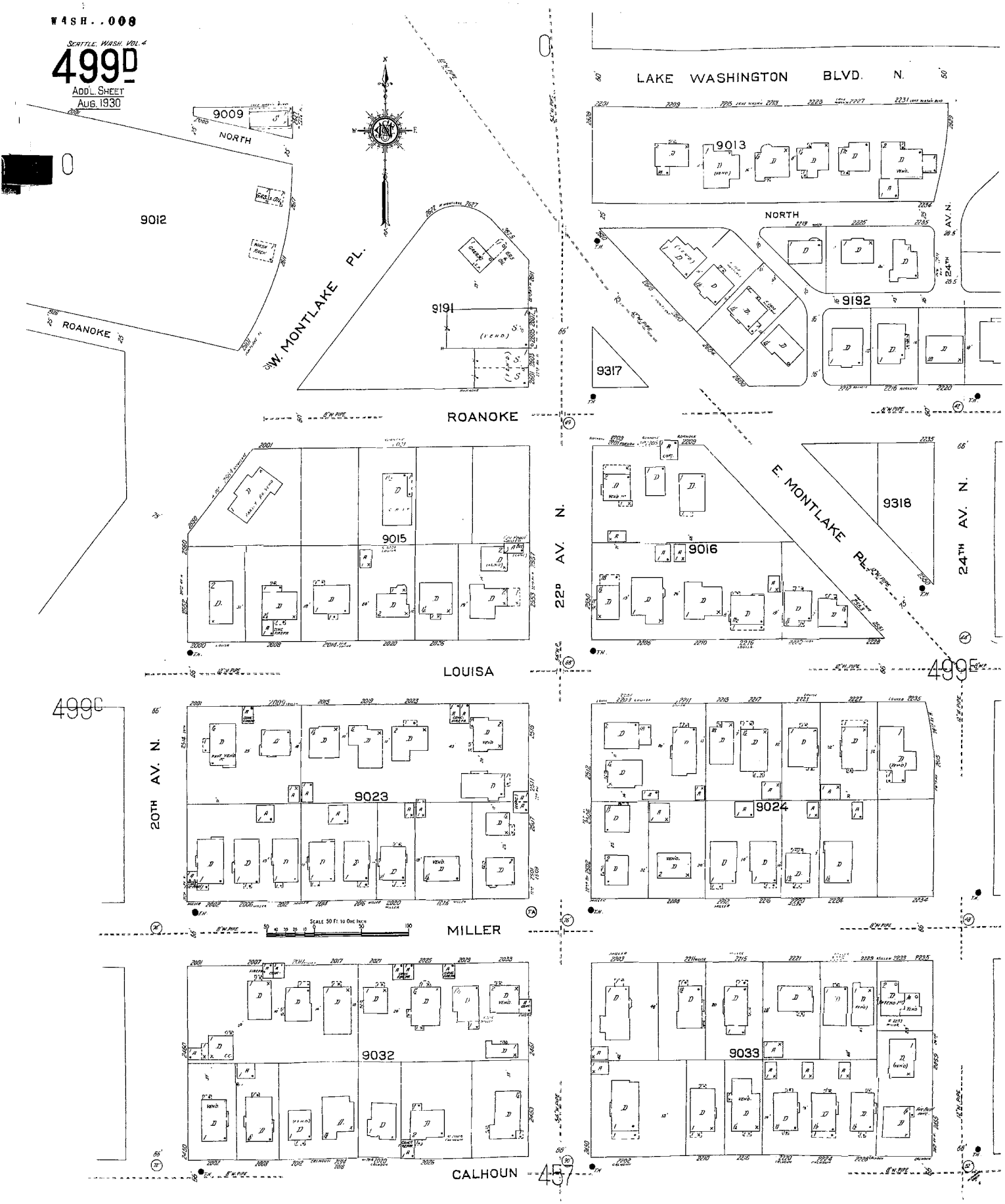
Appendix C – Historic 1930 Sanborn Map

WASH..008

SEATTLE, WASH. VOL. 4

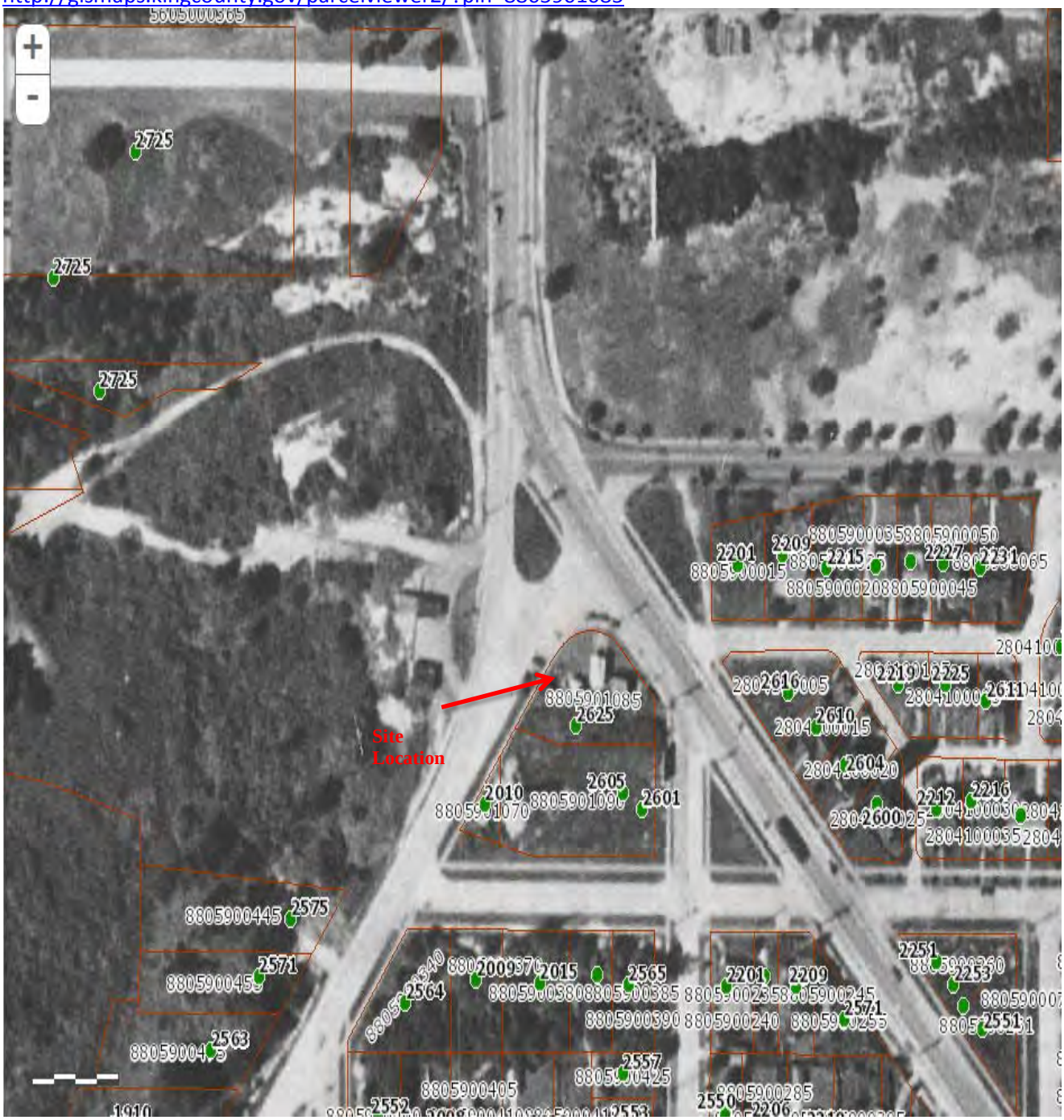
499D

ADD'L. SHEET
AUG. 1930



Appendix D – Historic 1936 Aerial Photograph

http://gismaps.kingcounty.gov/parcelviewer2/?pin=8805901085



Appendix E – REC Map

Facility Site records:

	Id	Name	Address	City	State	ZIP
2	6897318	AT&T WIRELESS MONTLAKE	2605 22ND AVE E	SEATTLE	WA	98112
3	47724816	MONTLAKE TEXACO	2625 E MOUNTLAKE PL	SEATTLE	WA	98122
1	5009384	PRO ROBICS	3811-3815 NE 45TH ST	SEATTLE	WA	98105
5	7653881	Seattle Yacht Club	1807 E HAMLIN ST	SEATTLE	WA	98112
6	43881153	US DOC NOAA NW Fisheries Science Center	2725 MONTLAKE BLVD E	SEATTLE	WA	98112
4	59477676	US DOT CG Hamlin St	1807 E HAMLIN ST	SEATTLE	WA	98112
7	24847	WA DOT SR 520 24th WABN	24TH AVE E & SR 520	SEATTLE	WA	98112