Remediation Management Services Company

Remedial Investigation and Cleanup Action Plan

Former ARCO Service Station 5544
19918 68th Ave South
Kent, Washington

Cleanup Site Identification No. 10741
Facility Site Identification No. 84544811

February 17, 2026

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February 13, 2026

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Acronyms and Abbreviations

µg/L	microgram per liter
ARAR	applicable or relevant and appropriate requirement
Arcadis	Arcadis U.S., Inc.
AS	air sparge
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and total xylene
btoc	below top of casing
CAP	Cleanup Action Plan
CFR	Code of Federal Regulations
COC	constituent of concern
CUL	cleanup level
Delta	Delta Environmental Consultants, Inc.
DRO	diesel range organics
Ecology	Washington State Department of Ecology
EDB	ethylene dibromide
EDC	1,2-dichloroethane
ft	foot or feet
GAC	granular activated carbon
GRO	gasoline range organics
HASP	Health and Safety Plan
HRO	heavy oil range organics
LNAPL	light non-aqueous phase liquid
mg/kg	milligrams per kilogram
NAVD 88	North American Vertical Datum of 1988
MTBE	methyl tert-butyl ether
MTCA	Model Toxics Control Act
OSHA	Occupational Safety and Health Administration
PFB	permeable filled boring
property	parcel 012204-9089

RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
SGT	silica gel treatment
site	Former ARCO Service Station 5544, located at 19918 68th Avenue South in Kent, Washington
SVE	soil vapor extraction
TPH	total petroleum hydrocarbons
USEPA	United States Environmental Protection Agency
UST	underground storage tank
WAC	Washington Administrative Code

1 Introduction

Arcadis U.S., Inc. (Arcadis) has prepared this Remedial Investigation (RI) and Cleanup Action Plan (CAP) on behalf of Remedial Management Service Company for Former ARCO Service Station 5544, located at 19918 68th Avenue South in Kent, Washington (site; Figure 1). The site is not currently enrolled into a regulatory program and future work will be performed under independent cleanup action. Site regulatory identifiers include Cleanup Site Identification No. 10741, Facility Site Identification No. 84544811, and Underground Storage Tank (UST) Identification No. 97711.

The purpose of this RI/CAP is to document the work completed to date to fulfill the RI phase in accordance with the Model Toxics Control Act (MTCA) and select a cleanup action to move the site towards regulatory closure. The selected remedy (permeable filled borings [PFBs]) will accelerate the timeline for dissolved-phase constituents of concern (COCs) concentrations in groundwater to attain compliance with MTCA Method A Cleanup Levels (CULs). If the cleanup action is successful, as confirmed by performance monitoring post-remedial action, a No Further Action determination will be requested for the site using Table 1, Option 5 of the Model Remedies for Sites with Petroleum Impacts to Groundwater (Washington State Department of Ecology [Ecology] 2017).

2 Site Background

This section discusses general site background information, environmental history, and historical groundwater monitoring.

2.1 General Site Information

The general site information and current use is described in Table 2-1, below, and was obtained from the King County property search page on November 28, 2025 (King County GeoData Center 2025):

Table 2-1. Site Information

Location	Bordered by MFCP store and commercial buildings to the north, Mill Creek and vegetated areas to the east, Umpqua Bank to the south, and 68th Avenue South followed by the Boeing employee club and commercial buildings to the west.
Address	19918 68th Avenue South in Kent, Washington
County	King County
Parcel Numbers	012204-9089
Legal Description	S 225 FT OF W 330 FT LESS W 41 FT OF SW 1/4 OF NW 1/4 STR 01-22-04
Land Use	Convenience store and gas station
Vicinity Land Use	Commercial
Property Owner	Kerawala's Inc./Chevron Extra Mile
Surface Area	1.49 acre

2.2 Site Description

The site currently operates as a Chevron-branded retail fuel service station and convenience store. Based on available site history, current site features include two 12,000-gallon unleaded gasoline double-wall fiberglass USTs, and one 12,000-gallon diesel double-wall fiberglass UST, four dispenser islands, associated product piping, a food mart building, and drive-thru coffee shop (Stantec 2022). The site is in a commercial area bordered to the north by commercial buildings, to the east by Mill Creek, to the south by commercial buildings, and to the west by 68th Avenue South followed by commercial buildings (Figure 2).

Prior to 1990, the property (parcel 012204-9089) contained a residence and barn. The surrounding area began transitioning from farmland to light industrial and warehouse uses in the 1960s, including the development of a short aircraft runway and the Boeing Space Center constructed west of the property, across 68th Avenue South. About 1,000 feet (ft) east-northeast of the property, the land was developed into the Western Processing hazardous waste disposal facility and landfill, which was later designated a Federal Superfund Site in 1983 (Stantec 2022). Based on Ecology UST records (Ecology 2025) and aerial imagery, the site began operating as an ARCO service station sometime between 1988 and 1990. Current and former site features are shown on Figure 3.

2.3 Environmental History

Prior environmental assessment and remediation activities are summarized below. Historical soil analytical results are presented in Tables 1 and 2, groundwater monitoring and analytical results are presented in Tables 3 and 4, and soil vapor analytical results are presented in Table 5. A soil sample location map is presented on Figure 4. Available boring logs are provided in Appendix A.

2.3.1 2002 Dispenser Island and Product Piping Upgrades

In January 2002, the site underwent property upgrades to the dispenser island that included replacement of product lines. Petroleum hydrocarbon odors were observed during upgrades to the dispenser islands and product piping. Four discrete soil samples (DIS-1-4, DIS-2-4, DIS-3-3.5, and DIS-4-4) were collected from underneath the dispenser islands and three discrete soil samples (PL-1-3.5, PL-2-4, and PL-3-4) from beneath the product lines. Soil samples were tested for total petroleum hydrocarbons (TPH) as gasoline range organics (GRO); benzene, toluene, ethylbenzene, and total xylenes (collectively referred to as BTEX); and total lead. Soil analytical results from beneath the western dispensers (DIS-3-3.5 and DIS-4-3.5) and from product line trenches (PL-1-3.5, PL-2-4, and PL-3-4) contained TPH-GRO and/or BTEX concentrations exceeding their respective MTCA Method A CULs. Approximately 43 tons of petroleum hydrocarbon-impacted soil were transported to TPS Technologies for thermal desorption treatment (Delta Environmental Consultants, Inc. [Delta] 2002).

2.3.2 2002 Monitoring Well Installations

In February 2002, monitoring wells MW-1 through MW-6 were installed to delineate site impacts based on data collected during the station upgrades in January 2002. Each well was screened from 4 to 19 ft below ground surface (bgs) with soil samples collected from each boring at 5 and 10 ft bgs. Soil analytical results from borings MW-2, MW-5, and MW-6 detected concentrations exceeding MTCA Method A CULs at 5 and 10 feet bgs for TPH-GRO and BTEX constituents with the greatest COC concentrations observed at boring MW-6. Groundwater

was observed at approximately 7 ft bgs during monitoring well advancement. Groundwater samples were collected during newly installed wells in March 2002 and analytical results exceeded MTCA Method A CULs from wells MW-2, MW-4, MW-5, and MW-6. The greatest concentrations of TPH-GRO, BTEX, and methyl tert-butyl ether (MTBE) were detected in wells MW-2, MW-5, and MW-6 (Delta 2002).

2.3.3 2003 Subsurface Investigation and Pilot Test

In April 2003, an additional four groundwater monitoring wells (MW-7 through MW-10; screened from 4 to 19 ft bgs) were installed at the property to further assess the extent of soil and groundwater impacts. Additionally, one air sparge (AS) well (AS-1; screened from 20 to 23 ft bgs) and one soil vapor extraction (SVE) well (SVE-1; screened from 5 to 8 ft bgs) was installed. Soil samples were collected from each boring for laboratory analysis between 5 and 7 ft bgs. Soil analytical results were less than MTCA Method A CULs, except AS-1, which exceeded the CULs for TPH-GRO and BTEX constituents at 5 and 7 ft bgs. Initial groundwater monitoring results for newly installed wells were less than MTCA Method A CULs except for a benzene exceedance in well MW-10 and lead exceedances in wells MW-7 and MW-9 (Delta 2003a).

Following well installations, a pilot test was performed at AS-1 and SVE-1 to evaluate remedial effectiveness for full scale implementation. The results indicated that AS/SVE would be effective for cleanup at the site (Delta 2003b).

2.3.4 2003 Air Sparge/Soil Vapor Extraction System Installation

In September 2003, six AS wells (AS-2 through AS-7) and six SVE wells (SVE-2 through SVE-7) were installed to support full scale implementation of an AS/SVE system. AS wells (AS-1 through AS-6) were screened from 21 to 23 ft bgs and well AS-7 was screened from 19 to 22 ft bgs. Each SVE well was screened from 4 to 10 ft bgs. Soil samples for disposal analysis were collected during AS/SVE well installations and trenching stockpiles and tested for TPH-GRO, BTEX, and total lead. Approximately 119 tons of stockpiled soil were transported for offsite disposal to the TPS Lakewood facility in Lakewood, Washington for thermal desorption treatment and recycling (Delta 2004).

Following the AS/SVE remediation system installation, the system operated intermittently until the end of 2005, totaling approximately 9,311 operating hours. The remediation system was shut down due to asymptotic removal rates. During this period, the system reportedly removed approximately 6,188 pounds of petroleum hydrocarbons.

2.3.5 2010 Subsurface Investigation

In July 2010, two soil borings (AUS-HB-1 and AUS-HB-2) were advanced to depths of 5 ft bgs to further delineate soil impacts. Soil samples were collected at each boring for laboratory analysis at 3.5 and 5 ft bgs and analyzed for TPH-GRO, BTEX, MTBE, and total lead. Soil analytical results from each boring were less than MTCA Method A CULs. TPH-GRO, BTEX, and MTBE were not detected at concentrations greater than the laboratory reporting limit (Arcadis 2010).

2.3.6 2011 Air Sparge Wells Installation

In November 2011, as a preparatory step to expand the remediation system, four AS wells (AS-8, AS-9, AS-10, and AS-11) were installed to depths ranging from 21 to 24.5 ft bgs. Wells AS-8 and AS-9 were screened from 16 to 18 ft bgs, well AS-10 was screened from 18 to 20 ft bgs, and well AS-11 was screened from 21 to 23 ft bgs. No soil samples were collected during the installation of the AS wells (Arcadis 2012).

2.3.7 2012 Well Abandonment

In October 2012, monitoring well MW-8 was abandoned via chip in place using hydrated bentonite chips to accommodate the updated remediation system. A formal report detailing the abandonment was not available during the development of this RI/CAP.

2.3.8 2012-2013 Remediation System Startup and Operation

In October 2012, trenching was performed to incorporate newly installed wells (AS-8 through AS-11) to the existing system. During system upgrades, it was determined that the existing conveyance piping was operational, but the system could no longer be utilized. As such, a skid-mounted AS/SVE system was installed at the former equipment enclosure. The updated AS/SVE system began operation in December 2012 (Arcadis 2013) and continued operating through August 2013. Decreasing influent concentrations had been observed and the system was shut down in August 2013 to evaluate for concentration rebound in site wells. Since December 2012, the AS and SVE system operated for a total of approximately 3,920 and 4,380 hours, respectively. Total mass removed during system operation was approximately 56 pounds of TPH-GRO and 1.6 pounds of benzene (Arcadis 2014).

2.3.9 2014 Subsurface Investigation

In July 2014, additional assessment was conducted to delineate petroleum hydrocarbon impacts in soil and groundwater that included the advancement of four soil borings (AUS-HB-3, AUS-HB-4, AUS-SB-1, and AUS-SB-2) and the installation of three monitoring wells (MW-11, MW-12, and MW-13). Borings were advanced to target depths between 5.5 to 20 ft bgs with each well screened from 5 to 20 ft bgs. Soil analytical results were less than MTCA Method A CULs except boring MW-12, which exceeded for benzene at 12.5 ft bgs (Arcadis 2015).

2.3.10 2021 Subsurface Investigation and Well Installation

In December 2021, one soil boring (SB-1) and four groundwater monitoring wells (MW-14 through MW-17; screened from 4 to 19 ft bgs) were installed to provided additional delineation. Soil samples were collected from each boring and analyzed for petroleum hydrocarbons, fuel oxygenates, lead, and semi-volatile organic compounds. Soil analytical results for each constituent were detected at low to trace concentrations or not detected at concentrations greater than the reporting limit and less than MTCA Method A CULs. Initial groundwater analytical results were also less than MTCA Method A CULs (Stantec 2022).

2.3.11 2023-2024 Soil Vapor Assessment

In October 2023, two soil vapor probes (SVP-1 and SVP-2) were installed to assess soil vapor quality at the site. The borings were advanced to 4 ft bgs with each probe centered at 3.5 ft bgs. Two seasonal rounds of soil vapor

sampling were performed in November 2023 and May 2024 to evaluate season and temporal variability. Soil vapor analytical results were less than MTCA Method B Soil Gas Screening Levels (Stantec 2024a and 2024b).

2.4 Groundwater Monitoring

The site groundwater monitoring well network consists of wells MW-1 through MW-7 and MW-9 through MW-17. Monitoring well MW-8 was abandoned in 2012 during the AS/SVE system installation. Groundwater monitoring at the site began in 2002 and has been conducted at varying frequencies, most recently in 2025. Light nonaqueous phase liquid (LNAPL) has been detected in well MW-6 ranging in thickness from 0.08 (July 2004) to 0.20 (December 2003) feet. LNAPL was last detected in well MW-6 in July 2004.

Depth to water at the site has been measured at approximately 5 to 14 feet below top of casing (btoc). The prevailing groundwater flow direction is primarily northeast with fluctuations to the west-northwest and north. A rose diagram of historical flow directions is provided on Figure 5. Groundwater gauging and analytical results are presented in Tables 3 and 4.

3 Groundwater Monitoring Activities

Blaine Tech Services, Inc. conducted groundwater monitoring services on June 20, 2025, including gauging of wells MW-1 through MW-7 and MW-9 through MW-17 and sampling of monitoring wells MW-2, MW-5, MW-6, and MW-9 through MW-14. Depth to water, groundwater elevation, and flow direction are presented in Table 3-1, below.

Table 3-1. Groundwater Gauging Summary

Sampling Event	Depth to Water (ft btoc)	Groundwater Elevation (ft NAVD 88)	Interpreted Groundwater Flow Direction
June 20, 2025	8.70 (MW-7) to 11.63 (MW-16)	17.22 (MW-14) to 18.06 (MW-3)	West-northwest

Notes:
NAVD 88 = North American Vertical Datum of 1988

Each well was sampled using low-flow purge methodology with a peristaltic pump. Field parameters including pH, temperature, electrical conductivity, turbidity, dissolved oxygen, and oxidation-reduction potential were collected during the purging process with a multiparameter water quality meter and flow-through cell. Field parameters were allowed to stabilize prior to collecting samples. Groundwater monitoring field data sheets are provided in Appendix B.

Groundwater samples were submitted to Pace Analytical, located in Mt. Juliet, Tennessee (an Ecology-accredited laboratory) under standard chain-of-custody protocol. Groundwater samples were analyzed for the following:

- TPH-GRO by Northwest Method NWTPH-Gx.
- TPH as diesel range organics (DRO) and heavy oil range organics (HRO) by Northwest Method NWTPH-Dx NO silica gel treatment (SGT).
- TPH-DRO and TPH-HRO by Northwest Method NWTPH-Dx with SGT were additionally analyzed if results without SGT exceeded the MTCA Method A CULs.

- BTEX, MTBE, and 1,2-dichloroethane (EDC) by United States Environmental Protection Agency (USEPA) Method 8260D.
- Ethylene dibromide (EDB) by USEPA Method 8011.
- Total lead by USEPA Method 6020B.

A blind duplicate sample was collected from monitoring well MW-14 for quality assurance purposes.

3.1 Groundwater Analytical Results

Groundwater analytical results for samples collected from site monitoring well network during the June 2025 event did not exceed MTCA Method A CULs except for MW-2, MW-6, MW-12, and MW-13. These locations exceeded the MTCA Method A CUL for the following COCs:

- TPH-GRO: MW-2, MW-6, and MW-13.
- TPH-DRO: MW-2, MW-6, MW-12, and MW-13.

Groundwater samples that exceeded TPH-DRO were additionally analyzed using silica gel cleanup methodology and were less than MTCA Method A CULs. Based on TPH-DRO results with and without silica gel cleanup methods, biogenic material and/or polar metabolites (break-down products) are suspected to be influencing TPH concentrations. It should be noted that the primary release mechanism is associated with gasoline only from the dispenser islands and product piping. As such, groundwater samples will continue to be analyzed with and without silica gel to better understand organics contributing to overall TPH concentrations.

Groundwater gauging data and analytical results are presented in Tables 3 and 4. A groundwater elevation contours map and groundwater analytical results map from the June 2025 groundwater monitoring events are shown on Figures 5 and 6, respectively. The groundwater laboratory analytical reports and chain-of-custody documentation are provided in Appendix C.

4 Proposed Cleanup Standards

A cleanup standard, as described in Washington Administrative Code (WAC) 173-340-700(3), consists of the following three site-specific elements:

- *CUL*. The concentration that must be met to protect human health and the environment.
- *Point of compliance*. The location where the CUL must be achieved.
- *Applicable or relevant and appropriate requirements (ARARs)*. Apply because of the type of action or the location of the site.

4.1 Points of Compliance

Standard points of compliance that apply to the site are summarized below:

- Groundwater. Throughout the site from the uppermost saturated zone extending vertically to the lowermost depth that could be affected [WAC 173-340-720(8)(b)].
- Soil – protection of groundwater. Soil throughout the site [WAC 173-340-740(6)(b)].

- Soil – protection from vapors. Soil throughout the site from the ground surface to the uppermost groundwater saturated zone [WAC 173-340-740(6)(c)].
- Soil – direct contact. Soil from 0 to 15 ft bgs represents a reasonable estimate that could be excavated during development activities [WAC 173-340-740(6)(d)].

4.2 Constituents of Concern and Cleanup Levels

Preliminary COCs in soil and groundwater for the site were identified according to MTCA Table 830-1 and included TPH-GRO, BTEX, MTBE, EDB, EDC, lead, and naphthalene.

4.2.1 Soil Cleanup Levels

Confirmed COCs for soil, based on assessment results, include TPH-GRO, BTEX, and lead. The generic Method B TPH (the summation of TPH-GRO, TPH-HRO, and TPH-DRO) CUL of 1,500 milligrams per kilogram (mg/kg) and MTCA Method B direct-contact CULs for specific petroleum constituents are proposed. The extent of soil impacts onsite are delineated to MTCA Method A CULs and the generic Method B TPH and MTCA Method B CULs will be used as the final CUL for soil; upon achieving MTCA Method A compliant groundwater. MTCA Method A and B CULs for confirmed COCs are presented in Table 4-1, below.

EDB, EDC, and carcinogenic polycyclic aromatic hydrocarbons were not detected at concentrations greater than the reporting limit or were detected at low to trace concentrations and are not considered site COCs.

Table 4-1. MTCA Method A and B CULs for Confirmed Site COCs in Soil

COC	Method A CUL in Soil	Method B CUL in Soil
TPH-GRO	30/100	--
TPH-DRO	2,000	--
TPH-HRO	2,000	--
Total TPH	--	1,500
Benzene	0.03	18
Toluene	7	6,400
Ethylbenzene	6	8,000
Total xylenes	9	16,000
Total lead	250	--

Notes:
1. CULs obtained from the Washington State Department of Ecology - Cleanup Levels and Risk Calculation (CLARC) Master Table, revised February 2026
2. The TPH-GRO MTCA Method A CUL with benzene present is 30 mg/kg and without benzene present is 100 mg/kg.
3. CULs listed in mg/kg.

4.2.2 Groundwater Cleanup Levels

Confirmed COCs for groundwater include TPH-GRO, TPH-DRO, TPH-HRO, BTEX, MTBE, and lead. The corresponding MTCA Method A CULs for confirmed COCs are presented in Table 4-2, below. EDB, EDC, and carcinogenic polycyclic aromatic hydrocarbons were not detected at concentrations greater than the reporting limit or were detected at low to trace concentrations and are not considered site COCs.

Table 4-2. MTCA Method A CULs for Confirmed Site COCs in Groundwater

COC	Method A CUL in Groundwater
TPH-GRO	800/1,000
TPH-DRO	500
TPH-HRO	500
Benzene	5
Toluene	1,000
Ethylbenzene	700
Total xylenes	1,000
MTBE	20
Lead	15

Notes:
1. CULs obtained from the Washington State Department of Ecology - Cleanup Levels and Risk Calculation (CLARC) Master Table, revised February 2026
2. The MTCA Method A CUL for TPH-GRO varies based on the presence of benzene. With benzene present, the CUL is 800 micrograms per liter (µg/L); without benzene present, the CUL is 1,000 µg/L.
3. CULs are listed in units of µg/L.

4.2.3 Soil Vapor Screening Levels

Based on soil and groundwater results, the soil vapor pathway was considered in development of the RI Report to understand site conditions. Soil vapor samples were collected in November 2023 and May 2024 and compared to MTCA Method B Soil Gas Screening Levels for unrestricted land use. Soil vapor quality is discussed in Section 5.4, and preliminary screening criteria for MTCA Method B Soil Gas Screening Levels are presented in Table 4-3, below.

Table 4-3. MTCA Method B Soil Gas Screening Level for Site COCs in Soil Vapor.

COC	MTCA Method B Soil Gas Screening Level
TPH	1,500
Benzene	11
Ethylbenzene	15,000
Total xylenes	1,500
Toluene	76,000
Naphthalene	2.5

Notes:
1. CULs obtained from the Washington State Department of Ecology - Cleanup Levels and Risk Calculation (CLARC) Master Table, revised February 2026
2. Screening levels are in micrograms per cubic meter.

4.3 Applicable or Relevant and Appropriate Requirements

According to WAC 173-340-360(2), cleanup actions under the MTCA must comply with applicable state and federal laws. Such laws are defined under the MTCA as including ARARs. The ARARs for the site include the following:

- Federal:
  - *Resource Conservation and Recovery Act (RCRA; 42 United States Code 6901-6992, 40 Code of Federal Regulations [CFR] Part 260-268)*. Investigation-derived waste and other waste produced during site activities were handled per RCRA regulations and implemented according to WAC 173-303.
  - *Occupational Safety and Health Administration (OSHA; 29 CFR 1910)*. Site activities will be conducted in a manner compliant with OSHA regulations.
  - *Rules for Transport of Hazardous Waste (49 CFR 107, 171)*. Hazardous waste, if generated at the site, will be appropriately characterized to determine packaging, labeling, and transportation requirements.
- State:
  - *Source Water Protection (WAC 246-290-135)*. New and existing drinking water wells will establish a wellhead protection program that includes an inventory of potential groundwater contamination sources and be appropriately delineated from potential contamination sources.
  - *MTCA (WAC 173-340)*. Site activities will occur in accordance with MTCA statutes and regulations.
  - *Dangerous Waste Regulations (WAC 173-303)*. Investigation-derived waste and other waste produced during activities at the site will be handled per RCRA regulations and implemented according to WAC 173-303.
  - *Minimum Standards for Construction and Maintenance of Wells, Regulation and Licensing of Well Contractors and Operators (18.104, WAC 173-160, 162)*. Resource protection wells will be constructed and maintained according to the appropriate regulations. Private water wells will be constructed considering certain setback requirements from known or potential sources of contamination.
  - *Washington Industrial Safety and Health Act, Chapter 296-62*. Site activities will be conducted in a manner compliant with Washington Industrial Safety and Health Act standards and regulations.

- *Maximum Environmental Noise Levels (173-60 WAC)*. Site activities will be conducted at appropriate noise levels, according to 173-60 WAC.

4.4 Terrestrial Ecological Evaluation

Per WAC 173-340-7490(2), a terrestrial ecological evaluation is required when a hazardous substance is released to soil at a site. This site is considered for a simplified evaluation based on the following criterion:

- the total area of site soil contamination is not more than 350 square feet.

A site vicinity map is shown on Figure 2. The completed terrestrial ecological evaluation form is provided in Appendix D.

5 Conceptual Site Model

The conceptual site model uses data collected during previous investigations and the cleanup action to understand impact occurrence, movement, and potential exposures at the site. Figure 7 shows the conceptual site model, including the potential exposure pathways considered. A soil status map is shown on Figure 8 and a groundwater status map is shown on Figure 9. A cross-section location map and cross-section A-A' is shown on Figures 10 and 11, respectively.

5.1 Source Characterization

The primary source of petroleum impacts at the site appears to be from dispenser islands and product piping that were used for storage and retail distribution of petroleum products. Based on results from site investigations, the extent of COCs in soil is delineated to MTCA Method A CULs, confirming the applicability of a model remedy. Historically, the greatest COC concentrations have been observed at approximately 5 ft bgs. Source removal was limited in 2002 due to structural impediments that prevented further excavation. Remaining site soil is below the applicable Method B CULs.

The nature and extent of groundwater impacts are delineated and characterized. COC concentrations in groundwater that currently exceed Method A CULs are located in the vicinity of the dispenser islands.

Petroleum hydrocarbon impacts associated with the site have been defined and characterized and there are no known continuing sources of hazardous substance releases at the site associated with the former retail petroleum operations.

5.2 Soil Quality

Based on the results of investigations conducted from 2002 to 2021, remaining petroleum-impacted soils are present at concentrations that exceed CULs in the vicinity of the dispenser islands. As discussed in Section 4.2.1, a generic Method B TPH CUL of 1,500 mg/kg and Method B direct-contact CULs are proposed as the final CULs for the site upon achieving Method A compliant groundwater. Soil is fully delineated to less than MTCA Method A CULs at the property boundary. Soil remains on the property that exceeds Method A CULs but is less than the generic TPH CUL of 1,500 mg/kg and Method B CULs. Soil concentrations at MW-6 and AS-1 previously exceeded the generic TPH CUL and benzene CUL at 5 and 7 ft bgs. Confirmation sampling (purple shading in Table 1) has successfully demonstrated that natural attenuation has continued to be an ongoing process and soil in this area is now Method B compliant. Once groundwater cleanup standards are met, empirical demonstration may be considered in accordance with [WAC 173-340-749 (9)] to show that soil below the water table is protective of groundwater.

PFBs are the selected cleanup action to address residual petroleum impacts in soil and are discussed in Section 7. A soil status map with the historical footprint of soil locations exceeding MTCA Method A CULs is shown on Figure 8.

5.3 Groundwater Quality

Groundwater monitoring activities began in 2002 and were conducted most recently during the second quarter of 2025. The well network includes MW-1 through MW-7, and MW-9, through MW-17. Historically, groundwater

concentrations exceeded MTCA Method A CULs for TPH-GRO, TPH-DRO, BTEX, and MTBE. Groundwater analytical results from wells MW-2, MW-5, MW-6, MW-12, and MW-13 exceed MTCA Method A CULs. LNAPL was last observed in well MW-6 during the July 2004 sampling event and has not been observed since.

At locations where COC concentrations exceeded CULs for TPH-DRO, samples were analyzed both with and without SGT. Reported TPH-DRO concentrations using SGT suggested that biogenic material is likely to influence the TPH results, resulting in biased-high concentrations. Additionally, as time passes, petroleum hydrocarbons dissolved in groundwater naturally biodegrade into polar metabolites (acids and esters) and should not be considered in the reported bulk TPH concentration. Analyzing TPH-DRO and TPH-HRO with and without SGT is appropriate to evaluate compliance with applicable CULs.

During the most recent groundwater monitoring event conducted in June 2025, concentrations in groundwater samples collected from wells MW-2, MW-6, MW-12, and MW-13 exceeded MTCA Method A CULs for TPH-GRO, with the highest concentration detected in MW-6 (3,330 µg/L). PFBs are the selected cleanup action to address secondary source located near the dispenser islands and are discussed in Section 7.

Groundwater gauging and analytical results are presented in Tables 3 and 4. A groundwater status map with the historical footprint of groundwater locations exceeding MTCA Method A CULs is shown on Figure 9.

5.4 Soil Vapor Quality

Two soil vapor probes (SVP-1 and SVP-2) were installed by Stantec at the site in 2023 and sampled in November 2023 and May 2024 to assess soil vapor quality. Soil vapor analytical results from both sampling events were less than MTCA Method B Soil-Gas Screening Levels. Based on these results, there does not appear to be a concern for petroleum vapor intrusion. Soil vapor analytical results are presented in Table 5.

5.5 Fate and Transport

This section discusses general and site-specific fate and transport at the site.

5.5.1 General Fate and Transport Mechanism

Petroleum hydrocarbons can exist in four phases in soils (unsaturated vadose zone and/or smear zone):

- *Residual phase*. Petroleum hydrocarbons are adsorbed to soil.
- *Dissolved or aqueous phase*. Petroleum hydrocarbons are dissolved in water within soil pore space.
- *Vapor phase*. Petroleum hydrocarbons are volatilized into soil pore space.
- *Free phase*. Recoverable LNAPL.

Following the release of liquid hydrocarbons (e.g., gasoline), the product migrates downward by gravity and capillary forces and, depending on the quantity released, soil type, and depth to groundwater, may reach the groundwater table. As hydrocarbons move toward the water table, residual hydrocarbons may remain in the residual, dissolved, and/or free phase (i.e., LNAPL).

Dissolution of hydrocarbons can occur when they encounter groundwater. Dissolved-phase hydrocarbons are transported in the saturated zone laterally and vertically by advection, dispersion, or diffusion. When rainwater infiltrates subsurface soil near a release, the water will flow downward and preferentially migrate through higher

conductive soil before reaching groundwater. If the release of petroleum hydrocarbons is significant, LNAPL may overcome the capillary forces and pool on top of the groundwater. A smear zone can develop as the groundwater levels fluctuate through time, resulting in a smear zone of hydrocarbons that can exhibit comparatively elevated concentrations and/or areas of free phase.

5.5.2 Site Fate and Transport Mechanism

Fate and transport for each phase for the site include:

- *Residual phase.* COCs in soil have been less than the generic Method B TPH CUL and MTCA Method B CULs except in MW-6 and AS-1. However, confirmation sampling has indicated that soil exceeding Method B concentrations is no longer present at the site. Soil below the water table that exceeds Method A concentrations may potentially contribute to groundwater concentrations. The proposed remedial action will address remaining mass below the water table.
- *Dissolved phase.* Groundwater analytical results exceed MTCA Method A CULs at wells MW-2, MW-6, MW-12, and MW-13. Remedial action will be completed to address dissolved-phase COCs. Continued groundwater monitoring will evaluate remedy effectiveness.
- *Vapor phase.* Based on shallow soil impacts and proximity to the station building, a soil vapor assessment was conducted to assess soil vapor quality. Soil vapor analytical results collected in 2023 and 2024 were less than MTCA Method B Screening Levels. There does not appear to be a concern for petroleum vapor intrusion at the site.
- *Free phase.* LNAPL was previously observed in 2003 and 2004 but has not been observed since that time.

5.6 Potential Receptors and Exposure Pathways

This section discusses the potential current and future receptors and potential exposure pathways at the site.

5.6.1 Potential Receptors

The site is an active Chevron-branded retail fuel station and convenience store in Kent, Washington. Potential current human receptors include onsite employees, environmental professionals and the general public. Potential future receptors include construction worker exposure during potential repair/redevelopment activities, future commercial workers, and the general public if the site is redeveloped.

Current ecological receptors are limited due to the site location and its land use designation; future native and invasive vegetation are not expected to grow at the site due to land use in the site vicinity, as described in Section 4.4. Additional details are provided in Appendix D.

5.6.2 Potential Exposure Pathways

Potential exposure pathways considered for the site include the following:

- *Residual phase*. Exposure to soil via incidental ingestion, dermal contact, and inhalation of windblown dust. The site is currently paved and no soil with impacted COCs is exposed. Therefore, there are no complete pathways for current receptors through incidental ingestion, dermal contact, and inhalation of windblown dust. Future construction workers may come into contact with site soil during redevelopment activities at the site.

However, site soils are compliant with applicable Method B direct-contact CULs, so this potential exposure pathway is considered insignificant.

- *Groundwater*. Exposure to groundwater via incidental ingestion and dermal contact. Groundwater at the site is Method A compliant except for monitoring wells MW-2, MW-5, MW-6, MW-12, and MW-13. The site uses potable drinking water from a municipal water supply source so there are no current complete exposure mechanisms. However, future construction workers may come into contact with groundwater during redevelopment activities; this pathway is potentially complete pending additional remedial action.
- *Soil vapor*. Exposure to soil vapor via inhalation (volatilization of petroleum impacts contained in groundwater and/or soil). The soil vapor probe results were less than MTCA Method B Screening Levels during the 2023 and 2024 sampling events. Based on soil vapor analytical results, the inhalation exposure pathway is considered insignificant for the site.

6 Selected Cleanup Action

The selected cleanup action will be to install up to 25 PFBs to address residual petroleum hydrocarbon impacts in soil and groundwater exceeding applicable CULs. This includes the overdrilling of select site wells to allow for optimal placement of PFBs and to remove potential remaining hydrocarbon mass. A site plan with proposed PFB locations is shown on Figures 12a and 12b.

The PFB backfill amendment will include gypsum, granular activated carbon (GAC), and rhyolite gravel. The PFB backfill material will create a highly permeable preferential flow path to direct groundwater flow through an anthropogenic reactive zone, while dissolving the gypsum to provide sulfate and making GAC available as a sorptive media for overall enhanced degradation of hydrocarbons. The transport and distribution mechanism for the sulfate is predominantly advection and to some extent diffusion via concentration gradient. This application will accomplish the following objectives:

- Enhance biodegradation of remaining petroleum hydrocarbons.
- Target residual dissolved-phase hydrocarbons in the vicinity of MW-2, MW-6, MW-12, and MW-13.
- Create subsurface conditions to further mitigate potential impacts to groundwater.

Once PFBs are installed, groundwater monitoring may occur for up to two years to monitor remedy effectiveness post remedial action. Groundwater analytical results for dissolved-phase COCs and sulfate concentrations will be used to evaluate remedy efficacy.

6.1 Bioremediation Process Using Sulfate

In-situ groundwater bioremediation is a remedial approach that enhances naturally occurring microbial processes to promote the degradation of petroleum hydrocarbons within the saturated zone. Indigenous microorganisms metabolize hydrocarbons present in groundwater and groundwater-saturated soils, resulting in a reduction of contaminant mass. This approach supports both aerobic and anaerobic biodegradation mechanisms and is intended to augment biodegradation processes already occurring at the site.

Under anaerobic conditions, sulfate-reducing bacteria utilize sulfate as an electron acceptor to degrade petroleum hydrocarbons. During this process, hydrocarbons are transformed primarily into carbon dioxide and water, while sulfate is reduced to sulfide. As biodegradation progresses, available electron acceptors may become depleted,

which can limit the rate of natural attenuation at petroleum-impacted sites. In such cases, the addition of sulfate as an electron acceptor can enhance microbial activity and increase the rate of petroleum hydrocarbon biodegradation (Kolhatkar and Schnobrich 2017, Buscheck et al. 2019, Sra et al. 2022, and Sra et al. 2023).

6.2 Permeable Filled Borings – Sulfate Source for Enhanced Biodegradation

As mentioned above, the PFB backfill amendment will include gypsum, GAC, and rhyolite gravel. Gypsum will serve as a sustained source of sulfate due to its low solubility, thereby supporting enhanced biodegradation of residual petroleum hydrocarbons. GAC will act as an adsorbent for hydrocarbons and an additional media for biochemical interactions to occur, improving the overall biodegradation of sorbed hydrocarbon compounds. The rhyolite gravel (or similar) functions as a non-dissolving porous medium to provide pore space for the gypsum and GAC, as well as maintains permeability and structural integrity of the boring as gypsum dissolves over time (Buscheck et al. 2019).

The installed PFBs will form a highly permeable preferential flow path that directs groundwater through an engineered reactive treatment zone. As groundwater migrates through the amended interval, sulfate will be released from the gypsum and GAC will remain available to support sorption and biodegradation of hydrocarbons. Sulfate transport within the treatment zone will occur primarily via advective groundwater flow, with secondary distribution through diffusive processes driven by concentration gradients (Buscheck et al. 2019).

6.3 Remedial Strategy

Sulfate has been estimated to account for approximately 70 percent of the overall natural biodegradation capacity in petroleum hydrocarbon groundwater plumes, a condition which consequently results in sulfate-depleted conditions (Wei et al. 2018). Application of sulfate can help in enhancing the biodegradation rate of petroleum hydrocarbons, including specific compounds such as benzene (Kolhatkar and Schnobrich 2017, Buscheck et al. 2019, Sra et al. 2022, and Sra et al. 2023). As such, monitoring sulfate concentrations can be a lead indicator of remedial effectiveness.

PFBs were selected for the site to address residual dissolved-phase petroleum hydrocarbons in groundwater by enhancing biodegradation through the application of sulfate. PFBs are a proven and effective application methods for reagents as documented in the studies referenced and were selected based on the following criteria:

- Effective delivery of sulfate to the saturated zone.
- Enhances sulfate biodegradation of petroleum hydrocarbons.
- Improves adsorption (hydrocarbons) and subsequent biodegradation via GAC amendment.
- Effectiveness during fluctuating groundwater conditions.
- Treatment of impacts within and beneath fine-grained soil layers.
- Provides a sustainable source of sulfate.
- Reduces the duration of groundwater monitoring needed to document compliance.
- Limits risk to building structures during PFB installation.

6.4 Remediation Treatment Area

The extent of dissolved-phase petroleum hydrocarbons in groundwater exceeding CULs (Figure 9) appears limited to the vicinity of wells MW-2, MW-5, MW-6, MW-12, and MW-13. Soil and groundwater samples collected from this area have exhibited TPH-GRO, TPH-DRO, BTEX, and MTBE concentrations that exceeded MTCA Method A CULs, as described in Section 5.3. The desired target PFB zone (amendment backfill) will be from approximately 6 to 18 ft bgs. PFBs will be placed in clusters surrounding wells MW-2, MW-6, MW-12, and MW-13 (Figures 12a and 12b).

7 Cleanup Action Plan

This section details the elements of PFB implementation proposed for the area of concern.

7.1 Pre-Field Activities

This section discusses the pre-field activities completed prior to commencing intrusive work.

7.1.1 Site Health and Safety Plan

As required by OSHA 29 CFR 1910.120 (Hazardous Waste Operations and Emergency Responses), Arcadis will prepare a Health and Safety Plan (HASP) that addresses the hazards associated with the proposed fieldwork. The HASP is intended to identify and prevent potential safety hazards. Field staff and contractors will review the HASP before beginning field operations.

7.1.2 Access

The property owner and relevant stakeholders will be notified of proposed field activities prior to conducting work.

7.1.3 Utility Location

The Washington811 call center will be notified a minimum of 48 hours prior to commencing intrusive activities to identify public utility lines that may conflict with the proposed drilling locations. In conjunction with the Washington811 notification, a private utility-locating company, Geomarkout, will further evaluate the potential presence of underground utilities in the area of each proposed location.

7.2 Remedial Activities

The proposed scope of work includes constructing up to 25 PFBs in the area of concern. Eight of these locations will involve overdrilling remediation wells AS-1, AS-4, AS-5, AS-8, AS-9, AS-11, SVE-4, and SVE-5 to remove secondary source to the extent practicable and installing PFBs in overdrilled locations. Up to 17 PFB locations are to be installed around monitoring wells MW-2, MW-6, MW-12, and MW-13 to treat the target area.

7.2.1 Baseline Groundwater Sampling

Prior to PFB advancements, a baseline groundwater monitoring and sampling event will be conducted to evaluate remedy effectiveness post remedial action. Baseline monitoring includes gauging of wells MW-1 through MW-7 and MW-9 through MW-17 and sampling of monitoring wells MW-2, MW-5, MW-6, and MW-9 through MW-14. Wells will be sampled using low-flow purge methodology with a peristaltic pump. Field parameters, including pH, temperature, electrical conductivity, turbidity, dissolved oxygen, and oxidation-reduction potential will be collected during purging with a water quality meter and flow-through cell.

Following stabilization, samples will be collected in pre-preserved laboratory-provided bottles and placed in a cooler with ice. Samples were submitted to Pace Analytical, located in Mount Juliet, Tennessee, a laboratory accredited by Ecology, under standard chain-of-custody protocols. Groundwater samples will then be analyzed for the following constituents of concern (COCs):

- TPH-GRO by Northwest Method NWTPH-Gx
- TPH-DRO and TPH-HRO by Northwest Method NWTPH-Dx
- BTEX, MTBE, and EDC by USEPA Method 8260
- EDB by USEPA Method 8011
- Lead by USEPA Method 6000 series

In addition to the typical analysis performed on samples collected from the site, the following analyses will also be performed at wells MW-2, MW-5, MW-6, and MW-9 through MW-13:

- Alkalinity by USEPA Method 2320 B-20111
- Ferrous iron by USEPA Method 3500Fe B-2011
- Nitrate-nitrite by USEPA Method USEPA Method 353.2
- Sulfide by USEPA Method 4500S2 D-2011
- Nitrate and sulfate by USEPA Method 9056A
- Methane by USEPA Method RSK175

7.2.2 Soil Boring Drilling, Well Abandonment, and Permeable Filled Boring Design

Soil borings will be precleared using a combination of air knife, vacuum truck, and/or hand auger to a minimum depth of 6.5 ft bgs by a Washington-licensed driller. After preclearance, PFB borings will be approximately 12 inches in diameter and installed using a hollow-stem auger drill rig with an appropriately sized hollow stem auger to total depth. Soil characterization and sampling will be conducted based on visual observations of drill cuttings; no soil samples will be collected for laboratory analysis as a part of the advancement. Target depths for each PFB along with construction details are provided in Table 7-1, below. The conceptual layout of the proposed PFBs is shown on Figures 12a and 12b.

As part of the boring design, remediation wells AS-1, AS-4, AS-5, AS-8, AS-9, AS-11, SVE-4, and SVE-5 will be decommissioned via overdrilling in accordance with WAC 173-160. Approximately 25 borings are planned; however, the number of borings, proposed locations, configuration, and total depths may be adjusted based on surface space constraints, subsurface obstructions, and subsurface conditions.

Table 7-1. PFB Target Depth and Construction Details

Study Area	Location ID	Target Well	Overdriill (Yes/No)	Target Depth (feet bgs)	Historical DTW (feet btoc)	Target PFB Media Interval (feet bgs)
A	PFB-A1 through PFB-A5	MW-2	No	17	6.2 – 12.2	6 – 16
A	PFB-A6	MW-2	Yes/AS-4	23	6.2 – 12.2	6 – 16
A	PFB-A7	MW-2	Yes/AS-11	22	6.2 – 12.2	6 – 16
B	PFB-B1 and PFB-B2	MW-6	No	18	7.5 – 13.2	7 – 18
B	PFB-B3	MW-6	Yes/AS-1	23	7.5 – 13.2	7 – 18
B	PFB-B4	MW-6	Yes/AS-8	18	7.5 – 13.2	7 – 18
B	PFB-B5	MW-6	Yes/AS-9	18	7.5 – 13.2	7 – 18
B	PFB-B6	MW-6	Yes/SVE-4	18	7.5 – 13.2	7 – 18
C	PFB-C1 through PFB-C4	MW-13	No	17	7.4 – 10.5	7 – 17
C	PFB-C5	MW-13	Yes/AS-5	23	7.4 – 10.5	7 – 17
C	PFB-C6	MW-13	Yes/SVE-5	17	7.4 – 10.5	7 – 17
D	PFB-D1 through PFB-D6	MW-12	No	17	7.4 – 10.6	7 – 17

Notes:
bgs = below grade surface
btoc = below top of casing

Gypsum (calcium sulfate dihydrate) has a low solubility (approximately 1 gram per liter at 20 degrees Celsius) and will provide a long-term source of sulfate to facilitate continued anaerobic degradation of the petroleum hydrocarbons. Sulfate will be added to each PFB at various intervals at a 2:1:1 volume ratio of gypsum, GAC, and rhyolite gravel. The rhyolite rock (⅛- to ¼-inch particle size) will help maintain the structural integrity of the subsurface as the gypsum dissolves through time.

It is anticipated, based on the current design, that up to approximately 3.646 tons of gypsum and up to approximately 0.825 tons of GAC will be collectively placed in the 25 PFBs. The rhyolite rock, or similar, will account for 1.745 tons of the remaining volume.

7.2.3 Permeable Filled Boring Construction

A mixture consisting of gypsum, GAC, and rhyolite gravel (collectively, amendment) will be added to each PFB as described in Section 7.2.1. The premixed amendment will be placed in the PFBs manually. The augers will be retracted approximately 2 ft to avoid bridging, and the interval below the auger will be backfilled through the auger annulus with the amendment. These steps will be repeated until the desired 10-ft interval has been backfilled. An estimated 9 cubic feet of gypsum, GAC, and rhyolite mixture will be needed per boring to backfill the target interval. This will require a total volume of approximately 201 cubic feet for this project.

Wells abandoned that are overdrilled beyond the target depth of PFBs will be back filled using hydrated bentonite chips. The borings will be backfilled to the base of PFB media internal (Table 7-1) and then be completed as a PFB boring.

The construction of each PFB will be performed according to the site-specific HASP, which will include procedures on the safe handling and application of these materials. Wet methods to mitigate potential gypsum and carbon dust will be used as necessary. The estimated gypsum application dosage has been calculated based on an anticipated groundwater column and saturated soil in the wells. In addition, the estimated quantity of gypsum is based on the delivered gypsum being at least 98 percent gypsum by weight.

7.2.4 Investigation-Derived Waste

Soil cuttings and decontamination water generated during the PFB construction activities will be temporarily stored onsite in a properly labeled roll-off bin, pending waste profiling results. The investigation-derived waste will then be transported to an authorized disposal or treatment facility following waste characterization.

8 Performance Monitoring Plan

The remedial objective is to accelerate the timeline to bring groundwater concentrations into compliance with MTCA Method A CULs at wells MW-2, MW-6, MW-12, and MW-13. Performance monitoring will be conducted similar to the baseline groundwater event as discussed in Section 7.2.1 . Groundwater samples will be collected for performance monitoring and compared to baseline data at monitoring wells MW-2, MW-5, MW-6, and MW-9 through MW-14 will be analyzed for the following constituents of concern (COCs):

- TPH-GRO by Northwest Method NWTPH-Gx
- TPH-DRO and TPH-HRO by Northwest Method NWTPH-Dx
- BTEX, MTBE, and EDC by USEPA Method 8260
- EDB by USEPA Method 8011
- Lead by USEPA Method 6000 series

In addition to the typical analysis performed on samples collected from the site, the following analyses will also be performed at wells MW-2, MW-6, MW-12, and MW-13:

- Alkalinity by USEPA Method 2320 B-20111
- Ferrous iron by USEPA Method 3500Fe B-2011
- Nitrate-nitrite by USEPA Method USEPA Method 353.2
- Sulfide by USEPA Method 4500S2 D-2011
- Nitrate and sulfate by USEPA Method 9056A
- Methane by USEPA Method RSK175

Groundwater monitoring and sampling events will be conducted for up to two years following PFB construction. Future monitoring events, if required, will be determined after the two years of events are completed.

9 Conclusions, Recommendations, and Reporting

Based on the results of previous investigations and information presented in this RI/CAP, Arcadis concludes the following:

- Soil is adequately delineated and characterized to less than MTCA Method A CULs at the property boundary. Although soil exceedances remain greater than Method A CULs, soil concentrations are less than applicable MTCA Method B direct contact CULs including the generic TPH CUL of 1,500 mg/kg, or confirmed to be less than CULS through confirmation sampling, as discussed in Section 5.2. Remedial action to be undertaken will likely address residual impacts. Empirical demonstration and/or other lines of evidence will be used to confirm that soil concentrations are protective of groundwater once Method A groundwater compliance is achieved. No additional soil borings or soil sampling are recommended.
- Groundwater is adequately delineated and characterized and is MTCA Method A compliant throughout the site except for monitoring wells MW-2, MW-6, MW-12, and MW-13. PFBs will be installed to address dissolved-phase COCs that exceed CULs. No additional monitoring wells are recommended.
- Soil vapor analytical results were less than MTCA Method B Soil Gas Screening Levels for two sampling events. Soil vapor intrusion does not appear to be a concern at the site.

Arcadis will implement the remedy as discussed in this RI/CAP. Following PFB installations, Arcadis will prepare a Cleanup Action Report summarizing the remedial work and analytical results. If this work is executed as planned and groundwater analytical results post remedial action are less than MTCA Method A CULs for four quarters, Arcadis will request a No Further Action determination using Option 5 in Table 1 of the Model Remedies for Sites with Petroleum Impacts to Soil (Ecology 2017).

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Tables

Table 1. Soil Analytical Results – Volatile Organic Compounds and Lead
Former ARCO Service Station 5544
19918 68th Avenue South,
Kent, Washington

Sample ID	Sample Date	Depth	Total TPH	TPH-GRO	TPH-DRO	TPH-HRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDC	EDB	Total Lead	Comment
	MTCA Method A Soil CULs		--	30/100[2]	2,000	2,000	0.03	7	6	9	0.1	--	0.005	250	--
	MTCA Method B Soil CULs		1,500	--	--	--	18	6,400	8,000	16,000	560	11	0.5	--	--
Subsurface Investigation - Delta Environmental Consultants - 2002															
5544-1/9-DIS-1	1/9/2002	4	2.5	<5.00	--	--	<0.0300	<0.0500	<0.0500	<0.100	<0.100	--	--	2.98	
5544-1/9-DIS-2	1/9/2002	4	19.7	19.7	--	--	<0.0300	0.0515	<0.0500	0.198	<0.100	--	--	18.7	
5544-1/9-DIS-3	1/9/2002	3.5	20.4	20.4	--	--	**0.353**	0.0862	0.656	1.25	<0.100	--	--	25.9	
5544-1/9-DIS-4	1/9/2002	3.5	162	**162**	--	--	**1.89**	4.06	3.7	**27.5**	**<1.00**	--	--	33.7	Confirmed with AUS-HB-4
5544-1/9-PL-1	1/9/2002	3.5	6.35	6.35	--	--	**0.353**	0.0523	0.297	1.03	<0.100	--	--	10.3	
5544-1/9-PL-2	1/9/2002	4	59.3	**59.3**	--	--	**1.65**	2.23	2.31	**10.5**	**<0.200**	--	--	7.85	Confirmed with AUS-HB-1
5544-1/9-PL-3	1/9/2002	4	7.52	7.52	--	--	**0.388**	<0.0500	0.346	1.35	<0.100	--	--	6.43	Confirmed with AUS-HB-2
Monitoring Well Installations - Delta Environmental Consultants - 2002															
MW-1	2/12/2002	5	2.5	<5.00	--	--	<0.0300	<0.0500	<0.0500	<0.100	<0.100	<0.10	<0.0050	1.69	
MW-1	2/12/2002	10	2.5	<5.00	--	--	<0.0300	<0.0500	<0.0500	<0.100	<0.100	<0.10	<0.0050	4.92	
MW-2	2/12/2002	5	508	**508**	--	--	**2.93**	**11**	**14.8**	**68.4**	**<1.00**	<0.10	<0.0050	3.07	
MW-2	2/12/2002	10	44.8	**44.8**	--	--	**10.8**	0.23	3.89	6.91	**<1.00**	<0.10	<0.0050	5.33	
MW-3	2/12/2002	5	2.5	<5.00	--	--	<0.0300	<0.0500	<0.0500	<0.100	<0.100	<0.10	<0.0050	1.69	
MW-3	2/12/2002	10	2.5	<5.00	--	--	<0.0300	<0.0500	<0.0500	<0.100	<0.100	<0.10	<0.0050	1.91	
MW-4	2/12/2002	5	2.5	<5.00	--	--	<0.0300	<0.0500	<0.0500	<0.100	<0.100	<0.10	<0.0050	1.45	
MW-4	2/12/2002	10	2.5	<5.00	--	--	<0.0300	<0.0500	<0.0500	<0.100	<0.100	<0.10	<0.0050	4.31	
MW-5	2/12/2002	5	5.45	5.45	--	--	**0.0388**	<0.0500	0.125	0.659	<0.100	<0.10	<0.0050	4.3	
MW-5	2/12/2002	10	65.5	**65.5**	--	--	**0.358**	3.01	3.52	**13.2**	**<0.200**	<0.10	<0.0050	4.09	
MW-6	2/13/2002	5	**16,000**	**16,000**	--	--	**183**	**1,500**	**499**	**2,450**	**<1.00**	<0.10	<0.0050	2.39	Confirmed with AUS-SB-1
MW-6	2/13/2002	10	111	**111**	--	--	**13.9**	**22.7**	2.73	**14.4**	**<1.00**	<0.10	<0.0050	3.03	Confirmed with AUS-SB-1
Subsurface Investigation and Pilot Test - Delta Environmental Consultants - 2003															
MW-7	4/7/2003	7	2.5	<5.00	--	--	<0.0300	<0.0500	<0.0500	<0.100	<0.100	--	--	1.34	
MW-8	4/7/2003	7	2.5	<5.00	--	--	<0.0300	<0.0500	<0.0500	<0.100	<0.100	--	--	6.31	
MW-9	4/7/2003	7	2.5	<5.00	--	--	<0.0300	<0.0500	<0.0500	<0.100	<0.100	--	--	3.05	
MW-10	4/8/2003	5	2.5	<5.00	--	--	<0.0300	<0.0500	<0.0500	<0.100	<0.100	--	--	13.1	
MW-10	4/8/2003	7	2.5	<5.00	--	--	<0.0300	<0.0500	<0.0500	<0.100	<0.100	--	--	3.79	
AS-1	4/8/2003	5	84.9	**84.9**	--	--	**0.449**	2.78	1.89	**11.8**	**<1.00**	--	--	4.90	Confirmed with AUS-SB-1
AS-1	4/8/2003	7	**3,290**	**3,290**	--	--	**21.2**	**291**	**105**	**533**	**<1.00**	--	--	1.73	Confirmed with AUS-SB-1
SVE-1	4/7/2003	7	2.5	<5.00	--	--	<0.0300	<0.0500	<0.0500	<0.100	<0.100	--	--	1.99	
Subsurface Investigation - Arcadis - 2010															
AUS-HB-1	7/20/2010	3.5	2.4	<4.8	--	--	<0.019	<0.048	<0.048	<0.048	<0.048	--	--	11	
AUS-HB-1	7/20/2010	5	3.15	<6.3	--	--	<0.025	<0.063	<0.063	<0.063	<0.063	--	--	3.4	
AUS-HB-2	7/20/2010	3.5-4	2.55	<5.1	--	--	<0.020	<0.051	<0.051	<0.051	<0.051	--	--	3.3	
AUS-HB-2	7/20/2010	5	2.8	<5.6	--	--	<0.023	<0.056	<0.056	<0.056	<0.056	--	--	4.5	
Subsurface Investigation and Monitoring Well Installations- Arcadis - 2014															
MW-11	7/30/2014	7.5	1,103.6	3.6 J	630	470	0.00089 J	<0.0013	0.0033 J	0.026	<0.00064	--	--	0.715 J	
MW-11	7/30/2014	18.5	9.1	<1.4	<3.8	<13	<0.0055	<0.0011	<0.0011	<0.0011	--	--	--	--	
MW-12	7/28/2014	5	3.45	<1.4	<4.1	<1.4	0.0010 J	<0.0011	<0.0011	<0.0011	--	--	--	6.65	
MW-12	7/30/2014	12.5	20.45	12	<3.9	<13	**2.0**	<0.072	2.9	6.4	<0.036	--	--	1.36 J	
MW-12	7/30/2014	18.5	9.8	<1.5	<4.1	<14	0.0015 J	<0.0012	<0.0012	<0.0012	--	--	--	--	
MW-13	7/28/2014	5	19.75	<1.5	<4.0	17 J	0.0031 J	<0.0013	<0.0013	<0.0013	--	--	--	6.33	

Table 1. Soil Analytical Results – Volatile Organic Compounds and Lead
Former ARCO Service Station 5544
19918 68th Avenue South,
Kent, Washington

Sample ID	Sample Date	Depth	Total TPH	TPH-GRO	TPH-DRO	TPH-HRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDC	EDB	Total Lead	Comment
	MTCA Method A Soil CULs		**--**	**30/100[2]**	**2,000**	**2,000**	**0.03**	**7**	**6**	**9**	**0.1**	**--**	**0.005**	**250**	**--**
	MTCA Method B Soil CULs		**1,500**	**--**	**--**	**--**	**18**	**6,400**	**8,000**	**16,000**	**560**	**11**	**0.5**	**--**	**--**
MW-13	7/30/2014	7.5	114.7	100	7.7 J	<14	**<0.040**	<0.079	<0.079	0.29 J	<0.040	--	--	1.23 J	
MW-13	7/30/2014	18.5	9.95	<1.7	<4.2	<14	0.0019 J	0.0017 J	<0.0014	<0.0014	--	--	--	--	
AUS-HB-4	7/28/2014	5	10.45	2.6 J	<3.7	<12	0.0058 J	0.0033 J	<0.0013	0.019	<0.00064	--	--	--	
AUS-SB-1	7/29/2014	7.5	14.2	5.8 J	<3.8	<13	0.0071	0.0016 J	<0.0013	0.0014 J	<0.00063	--	--	--	
AUS-SB-1	7/30/2014	12.5	9.1	<1.4	<3.8	<13	0.0014 J	<0.0011	<0.0011	<0.0011	--	--	--	--	
AUS-SB-2	7/29/2014	5	23.5	<1.4	<3.6	21 J	0.00099 J	<0.0012	<0.0012	<0.0012	<0.00060	--	--	--	
AUS-SB-2	7/29/2014	7.5	9.9	<1.7	<4.1	<14	0.0015 J	<0.0012	<0.0012	<0.0012	<0.00061	--	--	--	
AUS-SB-2	7/29/2014	12	10.6	<1.8	<4.4	<15	0.0018 J	<0.0012	<0.0012	<0.0012	<0.00058	--	--	--	
Subsurface Investigation and Monitoring Well Installations - Stantec - 2021															
SB-1	12/7/2021	5	11.69	<4.63	<5.36	<13.4	<0.00170	<0.00852	<0.00426	<0.0111	<0.00170	<0.00426	<0.00426	2.94	
SB-1	12/7/2021	15	11.06 [10.73]	<4.08 [<3.83]	<5.14 [<5.04]	<12.9 [<12.6]	<0.00165 [<0.00158]	<0.00825 [<0.00789]	<0.00412 [<0.00394]	<0.0107 [<0.0103]	<0.00165 [<0.00158]	<0.00412 [<0.00394]	<0.00412 [<0.00394]	1.14 [0.903]	
MW-14	12/7/2021	5	12.34	<4.81	<5.68	<14.2	<0.00195	<0.00973	<0.00486	<0.0126	<0.00195	<0.00486	<0.00486	4.32	
MW-14	12/7/2021	10	27.9	<4.43	<5.38	23	<0.00176	<0.00882	<0.00441	<0.0115	<0.00176	<0.00441	<0.00441	2.48	
MW-15	12/7/2021	10	11.0	<4.08	<5.13	<12.8	<0.00161	<0.00973	<0.00402	<0.0104	<0.00161	<0.00402	<0.00402	2.13	
MW-15	12/7/2021	15	12.53	<4.89	<5.77	<14.4	<0.00197	<0.00984	<0.00492	<0.0128	<0.00197	<0.00492	<0.00492	2.47	
MW-16	12/7/2021	5	21.04	<3.85	<5.03	16.6	0.00227	0.0177	<0.00378	0.00984	<0.00151	<0.00378	<0.00378	15.3	
MW-16	12/7/2021	10	11.09	<4.13	<5.15	<12.9	0.00191	0.0116	<0.00395	0.0129	<0.00158	<0.00395	<0.00395	1.53	
DUP 1 (MW-16-20)	12/7/2021	20	10.69	<3.89	<4.99	<12.5	0.0250	<0.00777	0.0322	0.749	<0.00155	<0.00389	<0.00389	1.46	
MW-17	12/7/2021	5	11.23	<4.13	<5.23	<13.1	<0.00164	<0.00822	<0.00411	<0.0107	<0.00164	<0.00411	<0.00411	3.04	
MW-17	12/7/2021	10	11.28	<4.23	<5.24	<13.1	<0.00168	<0.00838	<0.00419	<0.0109	<0.00168	<0.00419	<0.00419	1.63	

Notes:
1. Sample depth measured in feet below ground surface.
2. Analytical results presented in milligrams per kilogram (mg/kg).
3. 30/100 = TPH-GRO MTCA Method A CUL with benzene present is 30 mg/kg and without benzene present is 100 mg/kg.
4. Total TPH = a summation of TPH-GRO, TPH-DRO, and TPH-HRO. For Non detects, half of the value has been taken from caclulation.
TPH CUL and Method B direct-contact CULs are in accordance with Model Remedies for Sites with Petroleum Impacts to Soil (Ecology 2017)
5. **BOLD** = Values are less that the laboratory reporting limit, but the laboratory reporting limit is greater than the CUL.
6. **BOLD and purple highlighted** values indicate one or more values previously exceeded MTCA Method A or Method B CULs; however, constituents have been confirmed less than CULs through confirmation sampling.
7. **Bold and pink highlighted** values indicate one or more constituents analyzed exceed the applicable MTCA Method A CULs, but do not exceed the applicable Method B or generic TPH CULs.

Reference:
Ecology. 2017. Model Remedies for Sites with Petroleum Impacts to Soil. Washington. December.

Analytical Methods:
TPH-GRO analyzed by NWTPH-Gx.
TPH-DRO and TPH-HRO analyzed by NWTPH-Dx/NWTPHDX-NO SGT.
Benzene, toluene, ethylbenzene, total xylenes, EDB, EDC, and MTBE analyzed by USEPA Method 8260B.
Total lead analyzed by USEPA Method 6020.

Laboratory Qualifiers:
J = The identification of the analyte is acceptable; the reported value is an estimate.

Abbreviations and Acronyms:
-- = not analyzed or not applicable
< = not detected at or greater than the laboratory reporting limit
[ ] = duplicate sample result
CUL = cleanup level
EDB = 1,2-dibromoethane
EDC = 1,2-dichloroethane
ID = identification
MTBE = methyl tert-butyl ether
MTCA = Model Toxics Control Act
TPH-DRO = total petroleum hydrocarbons as diesel-range organics
TPH-GRO = total petroleum hydrocarbons as gasoline-range organics
TPH-HRO = total petroleum hydrocarbons as heavy oil-range organics
USEPA = United States Environmental Protection Agency

Table 2. Soil Analytical Results – Semivolatile Organic Compounds
Former ARCO Service Station 5544
19918 68th Avenue South,
Kent, Washington

Sample ID	Date	Depth	PAHs											cPAHs								
			Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Napthalenes	Acenaphthene	Acenaphthylene	Anthracene	Fluoranthene	Fluorene	Phenanthrene	Pyrene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Indeno(1,2,3-cd)Pyrene	Benzo(g,h,i) perylene	Total cPAHs
MTCA Method A CULs			**5**	**--**	**--**	**5**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**0.1**	**--**	**--**	**--**	**--**	**--**	**--**	**0.1**
MTCA Method B Soil CULs			**1,600**	**20**	**320**	**1,600**	**4,800**	**--**	**24,000**	**3,200**	**3,200**	**--**	**2,400**	**--**	**0.19**	**--**	**--**	**--**	**--**	**--**	**--**	**0.19**
Site Investigation and 1st Quarter 2022 Groundwater Monitoring Report - Stantec - 2021																						
SB-1	12/7/2021	5	<0.0268	<0.0268	<0.0268	<0.0402	<0.00804	<0.00804	<0.00804	<0.00804	<0.00804	<0.00804	<0.00804	<0.00804	<0.00804	<0.00804	<0.00804	<0.00804	<0.00804	<0.00804	<0.00804	--
SB-1	12/7/2021	15	<0.0257 [<0.0252]	<0.0257 [<0.0252]	<0.0257 [<0.0252]	<0.0385[<0.0378]	<0.00771 [<0.00757]	<0.00771 [<0.00757]	<0.00771 [<0.00757]	<0.00771 [<0.00757]	<0.00771 [<0.00757]	<0.00771 [<0.00757]	<0.00771 [<0.00757]	<0.00771 [<0.00757]	<0.00771 [<0.00757]	<0.00771 [<0.00757]	<0.00771 [<0.00757]	<0.00771 [<0.00757]	<0.00771 [<0.00757]	<0.00771 [<0.00757]	<0.00771 [<0.00757]	--
MW-14	12/7/2021	5	<0.0284	<0.0284	<0.0284	<0.0426	<0.00852	<0.00852	<0.00852	<0.00852	<0.00852	<0.00852	<0.00852	<0.00852	<0.00852	<0.00852	<0.00852	<0.00852	<0.00852	<0.00852	<0.00852	--
MW-14	12/7/2021	10	<0.0269	<0.0269	<0.0269	<0.0403	<0.00807	<0.00807	<0.00807	<0.00807	<0.00807	<0.00807	<0.00807	<0.00807	<0.00807	<0.00807	<0.00807	<0.00807	<0.00807	<0.00807	<0.00807	--
MW-15	12/7/2021	10	<0.0256	<0.0256	<0.0256	<0.0384	<0.00769	<0.00769	<0.00769	<0.00769	<0.00769	<0.00769	<0.00769	<0.00769	<0.00769	<0.00769	<0.00769	<0.00769	<0.00769	<0.00769	<0.00769	--
MW-15	12/7/2021	15	<0.0288	<0.0288	<0.0288	<0.0432	<0.00865	<0.00865	<0.00865	<0.00865	<0.00865	0.00884	<0.00865	<0.00865	<0.00865	<0.00865	<0.00865	<0.00865	<0.00865	<0.00865	<0.00865	--
MW-16	12/7/2021	5	<0.0251	<0.0251	<0.0251	<0.0376	<0.00754	<0.00754	<0.00754	<0.00754	<0.00754	<0.00754	<0.00754	<0.00754	<0.00754	<0.00754	<0.00754	<0.00754	<0.00754	<0.00754	<0.00754	--
MW-16	12/7/2021	10	<0.0258	<0.0258	<0.0258	<0.0387	<0.00773	<0.00773	<0.00773	<0.00773	<0.00773	<0.00773	<0.00773	<0.00773	<0.00773	<0.00773	<0.00773	<0.00773	<0.00773	<0.00773	<0.00773	--
DUP 1 (MW-16-20)	12/7/2021	20	<0.0249	<0.0249	<0.0249	<0.0373	<0.00748	<0.00748	<0.00748	<0.00748	<0.00748	<0.00748	<0.00748	<0.00748	<0.00748	<0.00748	<0.00748	<0.00748	<0.00748	<0.00748	<0.00748	--
MW-17	12/7/2021	5	<0.0261	<0.0261	<0.0261	<0.0391	<0.00784	<0.00784	<0.00784	<0.00784	<0.00784	<0.00784	<0.00784	<0.00784	<0.00784	<0.00784	<0.00784	<0.00784	<0.00784	<0.00784	<0.00784	--
MW-17	12/7/2021	10	<0.0262	<0.0262	<0.0262	<0.0393	<0.00787	<0.00787	<0.00787	<0.00787	<0.00787	<0.00787	<0.00787	<0.00787	<0.00787	<0.00787	<0.00787	<0.00787	<0.00787	<0.00787	<0.00787	--

Notes:
1. Results reported in milligrams per kilogram (mg/kg).
2. Sample depth reported in feet below ground surface.
3. If cPAH were not detected at concentrations greater than the reporting limit, total cPAHs were not calculated.

Abbreviations and Acronyms:
< = not detected at or greater than the laboratory reporting limit
-- = not sampled or analyzed
[ ] = duplicate sample result
cPAH = carcinogenic polycyclic aromatic hydrocarbon
CUL = cleanup level
ID = identification
MTCA = Model Toxics Control Act
USEPA = United States Environmental Protection Agency

Analytical Methods:
Semivolatile organic compounds analyzed by USEPA Method 8270.

Table 3. Groundwater Gauging Data and Analytical Results
Former ARCO Service Station 5544
19918 68th Avenue South,
Kent, Washington

Well ID	Date	TOC	DTW	LNAPL (ft)	GWE	TPH-GRO	TPH-DRO	TPH-DRO SGT	TPH-HRO	TPH-HRO SGT	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
MTCA Method A Cleanup Levels						**800/1,000**	**500**	**500**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
MW-1	3/12/2002	196.78	7.45	--	189.33	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	**19.1**	<1.00
MW-1	8/30/2002	196.78	10.10	--	186.68	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<2.00	<0.01	<1.00	**44.2**	<1.00
MW-1	3/24/2003	196.78	6.75	--	190.03	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	2.3	<1.00
MW-1	4/22/2003	196.78	8.62	--	188.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	6/30/2003	196.78	9.57	--	187.21	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	<1.00	<1.00
MW-1	9/15/2003	196.78	10.27	--	186.51	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	<1.00	<1.00
MW-1	12/30/2003	196.78	8.75	--	188.03	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	<1.00	<1.00
MW-1	7/13/2004	196.78	9.85	--	186.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	11/1/2004	196.78	9.60	--	187.18	<80.0	--	--	--	--	<0.200	<0.500	<0.500	<1.00	<2.00	--	--	<1.00	--
MW-1	3/3/2005	196.78	9.11	--	187.67	<80.0	--	--	--	--	<0.200	<0.500	<0.500	<1.00	<2.00	--	--	<1.00	--
MW-1	6/12/2005	196.78	8.88	--	187.90	<80.0	--	--	--	--	<0.200	<0.500	<0.500	<1.00	<2.00	--	--	<1.00	--
MW-1	8/28/2005	196.78	10.13	--	186.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	11/17/2005	196.78	8.88	--	187.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	3/5/2006	196.78	8.49	--	188.29	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	3/12/2008	196.78	8.90	--	187.88	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-1	6/9/2008	196.78	8.74	--	188.04	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-1	1/15/2009	196.78	6.64	--	190.14	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-1	4/2/2009	196.78	7.89	--	188.89	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	<1.00	<1.00
MW-1	3/22/2010	26.12	7.70	--	18.42	<50	--	--	--	--	<1.0	<1.0	<1.0	<3	<1.0	--	--	--	--
MW-1	6/22/2010	26.12	7.14	--	18.98	<50 [<50]	--	--	--	--	<0.50 [<0.50]	<0.50 [<0.50]	<0.50 [<0.50]	<1.0 [<1.0]	<1.0 [<1.0 H]	--	--	--	--
MW-1	3/10/2011	26.12	5.82	--	20.30	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	**<20.0**	<10.0
MW-1	9/19/2011	26.12	8.73	--	17.39	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-1	3/16/2012	26.12	5.58	--	20.54	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-1	7/26/2012	26.12	8.67	--	17.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	3/1/2013	26.12	7.91	--	18.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	5/22/2013	26.12	8.08	--	18.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	7/24/2013	26.12	9.45	--	16.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	10/4/2013	26.12	6.63	--	19.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	2/12/2014	26.12	7.00	--	19.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	5/14/2014	26.12	7.51	--	18.61	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	8/5/2014	26.12	9.05	--	17.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	12/2/2014	26.12	7.61	--	18.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	6/5/2015	26.12	9.20	--	16.92	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	12/15/2015	26.12	6.05	--	20.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	3/25/2016	26.12	6.66	--	19.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	6/7/2016	26.12	8.19	--	17.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	9/19/2016	26.12	8.91	--	17.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	5/3/2021	26.12	7.83	--	18.29	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	1/28/2022	26.12	6.59	--	19.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	5/23/2022	26.12	7.48	--	18.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	8/11/2022	26.12	8.42	--	17.70	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	11/9/2022	26.12	8.11	--	18.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	6/20/2025	26.12	DRY	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	3/12/2002	198.02	8.60	--	189.42	**201,000**	--	--	--	--	**40,800**	**39,700**	**4,240**	**19,900**	**2,250**	--	--	**50.4**	<1.00
MW-2	8/30/2002	198.02	11.04	--	186.98	**74,000**	--	--	--	--	**24,300**	**4,590**	**2,270**	**7,530**	**2,620**	<0.01	**<100**	**121**	<1.00
MW-2	3/24/2003	198.02	8.45	--	189.57	**47,900**	--	--	--	--	**12,800**	**2,550**	**1,680**	**4,870**	**1,950**	--	--	13.9	<1.00
MW-2	4/22/2003	198.02	9.31	--	188.71	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	6/30/2003	198.02	10.43	--	187.59	**51,000**	--	--	--	--	**12,100**	**2,500**	**2,290**	**5,720**	**2,370**	--	--	**52.9**	9.95
MW-2	9/15/2003	198.02	11.33	--	186.69	**33,600**	--	--	--	--	**6,000**	**1,390**	**1,840**	**4,320**	**1,590**	--	--	14.7	<1.00
MW-2	12/30/2003	198.02	9.36	--	188.66	**74,000**	--	--	--	--	**10,100**	**12,800**	**1,980**	**8,510**	**1,070**	--	--	8.74	<1.00
MW-2	7/13/2004	198.02	10.71	--	187.31	**68,200**	--	--	--	--	**12,700**	**3,890**	**1,710**	**6,860**	**1,630**	--	--	<1.00	<1.00
MW-2	11/1/2004	198.02	9.11	--	188.91	<80.0	--	--	--	--	**25.5**	<1.00	<1.00	<2.00	**355**	--	--	<1.00	--
MW-2	3/3/2005	198.02	12.20	--	185.82	<80.0	--	--	--	--	<0.400	<1.00	<1.00	<2.00	**229**	--	--	1.82	--
MW-2	6/12/2005	198.02	10.00	--	188.02	**4,020**	--	--	--	--	**616**	33	523	490	**117**	--	--	<1.00	--

Table 3. Groundwater Gauging Data and Analytical Results
Former ARCO Service Station 5544
19918 68th Avenue South,
Kent, Washington

Well ID	Date	TOC	DTW	LNAPL (ft)	GWE	TPH-GRO	TPH-DRO	TPH-DRO SGT	TPH-HRO	TPH-HRO SGT	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
MTCA Method A Cleanup Levels						**800/1,000**	**500**	**500**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
MW-2	8/28/2005	198.02	11.14	--	186.88	**5,400**	--	--	--	--	**1,500**	3.57	66.6	63.9	**229**	--	--	<1.00	--
MW-2	11/17/2005	198.02	10.25	--	187.77	<50.0	--	--	--	--	0.72	<0.500	<0.500	<1.00	**106**	--	--	<1.00	--
MW-2	3/5/2006	198.02	9.05	--	188.97	69.2	--	--	--	--	3.14	<0.500	1.59	2.98	**46.5**	--	--	<1.00	--
MW-2	10/24/2006	198.02	11.08	--	186.94	733	--	--	--	--	**84.3**	1.18	66.1	10.6	**358**	--	--	--	--
MW-2	3/22/2007	198.02	8.43	--	189.59	**51,900**	--	--	--	--	**2,380**	**4,810**	**3,350**	**13,700**	**<100**	--	--	--	--
MW-2	5/30/2007	198.02	9.97	--	188.05	**51,900**	--	--	--	--	**1,650**	**3,390**	**2,360**	**7,650**	**119**	--	--	--	--
MW-2	9/4/2007	198.02	10.22	--	187.80	**81,900**	--	--	--	--	**1,480**	221	**3,120**	**24,100**	**131**	--	--	--	--
MW-2	11/13/2007	198.02	10.32	--	187.70	**21,200**	--	--	--	--	**426**	89.9	594	**1,760**	**65.5**	--	--	--	--
MW-2	3/12/2008	198.02	9.15	--	188.87	**91,100**	--	--	--	--	**304**	**2,240**	**3,750**	**16,700**	6.41	--	--	--	--
MW-2	6/9/2008	198.02	6.65	--	191.37	**22,100**	--	--	--	--	**11.7**	963	632	**3,360**	<1.00	--	--	--	--
MW-2	8/6/2008	198.02	10.60	--	187.42	**61,200**	--	--	--	--	**268**	**1,510**	**3,400**	**16,500**	1.48	--	--	--	--
MW-2	10/8/2008	198.02	10.41	--	187.61	**52,300**	--	--	--	--	**127**	172	**2,120**	**10,600**	<1.00	--	--	--	--
MW-2	1/15/2009	198.02	8.00	--	190.02	**34,700**	--	--	--	--	**361**	308	**1,540**	**5,100**	**21.8**	--	--	--	--
MW-2	4/2/2009	198.02	8.89	--	189.13	**81,600**	--	--	--	--	**90.3**	**1,120**	**3,590**	**18,700**	<10	--	--	<1.00	<1.00
MW-2	10/14/2009	198.02	9.86	--	188.16	**45,000**	--	--	--	--	**98**	38	**2,300**	**8,000**	<1.00	--	--	<2.00	--
MW-2	3/22/2010	27.32	8.66	--	18.66	**84,000**	--	--	--	--	**43**	490	**3,400**	**15,000**	<1.0	--	--	--	--
MW-2	6/22/2010	27.32	8.16	--	19.16	**69,000**	--	--	--	--	**30**	**1,600**	**3,000**	**13,000**	**<50 H**	--	--	--	--
MW-2	3/10/2011	27.32	7.19	--	20.13	**47,800**	--	--	--	--	**19.9**	548	**2,380**	**9,250**	<1.0	--	--	<10.0	<10.0
MW-2	9/19/2011	27.32	10.45	--	16.87	**37,000**	--	--	--	--	**66**	10.9	**2,210**	**2,410**	<1.0	--	--	<10.0	<10.0
MW-2	3/16/2012	27.32	7.19	--	20.13	**30,800**	--	--	--	--	**32.5**	17.5	**1,960**	**3,050**	<1.0	--	--	<10.0	<10.0
MW-2	7/26/2012	27.32	9.78	--	17.54	**42,600**	--	--	--	--	**49.6**	9.5	**2,090**	**4,330**	<1.0	--	--	<10.0	<10.0
MW-2	3/1/2013	27.32	9.60	--	17.72	<100 [<100]	--	--	--	--	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<3.0 [<3.0]	--	--	--	<3.0	<10.0
MW-2	5/22/2013	27.32	9.58	--	17.74	<100 [<100]	--	--	--	--	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<3.0 [<3.0]	1.1 [1.2]	--	--	<10.0	<10.0
MW-2	7/24/2013	27.32	10.38	--	16.94	<100 [<100]	--	--	--	--	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<3.0 [<3.0]	<1.0 [<1.0]	--	--	<10.0	<10.0
MW-2	10/4/2013	27.32	8.55	--	18.77	<100	--	--	--	--	2.4	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-2	2/12/2014	27.32	9.25	--	18.07	**7,200**	--	--	--	--	2.7 J	0.71 J	430	590	<0.50	--	--	<4.7	<4.7
MW-2	5/14/2014	27.32	7.98	--	19.34	**5,200 [5,100]**	--	--	--	--	2.6 [2.8]	0.79 J [0.99 J]	210 [230]	730 [710]	<0.50 [<0.50]	--	--	0.18 J [0.16 J]	<0.085 [0.094 J]
MW-2	8/5/2014	27.32	10.04	--	17.28	**21,000 [17,000]**	--	--	--	--	**5.7 [6.2]**	3.9 J [4]	**920 [920]**	**2,700 [2,600]**	<2.5 [<1.0]	--	--	0.37 J [0.49 J]	<0.082 [<0.082]
MW-2	12/2/2014	27.32	8.53	--	18.79	**8,900 [9,300]**	**3,300 [2,400]**	--	180 J [220 J]	--	4.5 [4.1]	3.6 [2.5]	540 [490]	**1,000 [830]**	<0.50 [0.59 J]	--	--	0.12 J [0.32 J]	--
MW-2	6/5/2015	27.32	9.98	--	17.34	**7,500 [7,700]**	**3,400 [2,700]**	--	<66 [<67	--	3.5 [3.5]	1.4 [1.3]	510 [520]	620 [590]	0.54 J [0.56 J]	--	--	0.32 J [0.34 J]	--
MW-2	12/15/2015	27.32	7.39	--	19.93	**830 [960]**	140 [110]	--	<66 [<69]	--	0.50 J [<0.50]	<0.50 [<0.50]	27 [29]	5.8 [8.7]	1.2 [1.3]	--	--	--	--
MW-2	3/25/2016	27.32	7.84	--	19.48	**10,000**	**590**	--	<100	--	0.74 J	0.63 J	400	810	<0.50	--	--	--	--
MW-2	6/7/2016	27.32	9.44	--	17.88	**28,000**	**3,100**	--	<100	--	3.9	2.4	**930**	**1,900**	<1.0	--	--	--	--
MW-2	9/19/2016	27.32	10.24	--	17.08	**7,900 [7,600]**	**2,300**	--	<110	--	**5.2 [5.1]**	1.7 [1.6]	320 [400]	200 [190]	<0.50 [<0.50]	--	--	--	--
MW-2	5/4/2021	27.32	8.92	--	18.40	**2,740**	**1,250**	--	<250	--	0.627 J	0.406 J	68.1	13.9	0.226 J	<0.0100	<1.00	10.7	<2.00
MW-2	1/28/2022	27.32	7.81	--	19.51	**3,030**	**1,190**	--	<250	--	<1.00	<1.00	<1.00	<3.00	<1.00	**<0.0103**	<1.00	<2.00	<2.00
MW-2	5/23/2022	27.32	8.55	--	18.77	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	8/11/2022	27.32	9.57	--	17.75	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	11/9/2022	27.32	9.56	--	17.76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	6/20/2025	27.32	9.38	--	17.94	**1,460 B**	**929**	<200	<250	<250	<1.00	<1.00	29.6	3.64	<1.00	**<0.0200**	<1.00	<2.00	--
MW-3	3/12/2002	197.49	7.90	--	189.59	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	**55.7**	<1.00
MW-3	8/30/2002	197.49	10.50	--	186.99	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<2.00	<0.01	<1.00	**63.8**	<1.00
MW-3	3/24/2003	197.49	7.60	--	189.89	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	1.8	<1.00
MW-3	4/22/2003	197.49	8.60	--	188.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	6/30/2003	197.49	9.45	--	188.04	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	13.4	3.63
MW-3	9/15/2003	197.49	10.67	--	186.82	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	14	<1.00
MW-3	12/30/2003	197.49	8.65	--	188.84	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	2.17	<1.00
MW-3	7/13/2004	197.49	10.27	--	187.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	11/1/2004	197.49	9.50	--	187.99	<80.0	--	--	--	--	<0.200	<0.500	<0.500	<1.00	<2.00	--	--	<1.00	--
MW-3	3/3/2005	197.49	8.42	--	189.07	<80.0	--	--	--	--	<0.200	<0.500	<0.500	<1.00	<2.00	--	--	<1	--
MW-3	6/12/2005	197.49	9.32	--	188.17	<80.0	--	--	--	--	<0.200	<0.500	<0.500	<1.00	<2.00	--	--	<1.00	--
MW-3	8/28/2005	197.49	10.64	--	186.85	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	11/17/2005	197.49	9.15	--	188.34	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	3/5/2006	197.49	8.28	--	189.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3. Groundwater Gauging Data and Analytical Results
Former ARCO Service Station 5544
19918 68th Avenue South,
Kent, Washington

Well ID	Date	TOC	DTW	LNAPL (ft)	GWE	TPH-GRO	TPH-DRO	TPH-DRO SGT	TPH-HRO	TPH-HRO SGT	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
MTCA Method A Cleanup Levels						**800/1,000**	**500**	**500**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
MW-3	3/12/2008	197.49	8.85	--	188.64	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-3	6/9/2008	197.49	7.56	--	189.93	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-3	8/6/2008	197.49	10.07	--	187.42	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-3	10/8/2008	197.49	9.62	--	187.87	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-3	1/15/2009	197.49	7.15	--	190.34	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-3	4/2/2009	197.49	8.05	--	189.44	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	<1.00	<1.00
MW-3	3/22/2010	26.83	7.89	--	18.94	<50 [<50]	--	--	--	--	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<3.0 [<3.0]	<1.0 [<1.0]	--	--	--	--
MW-3	6/22/2010	26.83	7.44	--	19.39	<50	--	--	--	--	<0.50	<0.50	<0.50	<1.0	<1.0 H	--	--	--	--
MW-3	3/10/2011	26.83	7.54	--	19.29	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-3	9/19/2011	26.83	9.41	--	17.42	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-3	3/16/2012	26.83	6.30	--	20.53	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-3	7/26/2012	26.83	8.90	--	17.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	3/1/2013	26.83	8.44	--	18.39	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	5/22/2013	26.83	8.55	--	18.28	<100	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-3	7/24/2013	26.83	9.87	--	16.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	10/4/2013	26.83	7.72	--	19.11	<100	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-3	2/12/2014	26.83	8.01	--	18.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	5/14/2014	26.83	7.39	--	19.44	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	8/5/2014	26.83	9.57	--	17.26	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	12/2/2014	26.83	7.78	--	19.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	6/5/2015	26.83	9.15	--	17.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	12/15/2015	26.83	6.61	--	20.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	3/25/2016	26.83	7.19	--	19.64	<50	<46	--	<100	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-3	6/7/2016	26.83	8.85	--	17.98	<50	<46	--	<100	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-3	9/19/2016	26.83	9.46	--	17.37	<50	<48	--	<110	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-3	5/3/2021	26.83	8.26	--	18.57	71.2 B J	<200	--	<250	--	<1.00	<1.00	<1.00	<3.00	<1.00	<0.0100	<1.00	1.48 J	<2.00
MW-3	1/28/2022	26.83	7.15	--	19.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	5/23/2022	26.83	7.82	--	19.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	8/11/2022	26.83	9.06	--	17.77	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	11/9/2022	26.83	8.71	--	18.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	6/20/2025	26.83	8.77	--	18.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	3/12/2002	197.68	7.38	--	190.30	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	**23.2**	<1.00
MW-4	8/30/2002	197.68	10.97	--	186.71	**1,400**	--	--	--	--	**48**	1.05	0.743	124	9.57	<0.01	<1.00	**61**	<1.00
MW-4	3/24/2003	197.68	8.65	--	189.03	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	5.53	<1.00
MW-4	6/30/2003	197.68	10.61	--	187.07	**903**	--	--	--	--	**28.9**	<0.500	<0.500	16.7	<5.00	--	--	9.17	4.56
MW-4	9/15/2003	197.68	11.16	--	186.52	**848**	--	--	--	--	**20.5**	<0.500	<0.500	3.73	<1.00	--	--	5.15	<1.00
MW-4	12/30/2003	197.68	9.61	--	188.07	144	--	--	--	--	1	<0.500	<0.500	2.4	<1.00	--	--	**15.1**	<1.00
MW-4	7/13/2004	197.68	9.98	--	187.70	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	11/1/2004	197.68	10.60	--	187.08	<80.0	--	--	--	--	<0.200	<0.500	<0.500	<1.00	<2.00	--	--	2.3	--
MW-4	6/12/2005	197.68	9.78	--	187.90	<80.0	--	--	--	--	<0.200	<0.500	<0.500	<1.00	<2.00	--	--	<1.00	--
MW-4	8/28/2005	197.68	11.00	--	186.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	11/17/2005	197.68	9.81	--	187.87	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	<1.00	--
MW-4	3/5/2006	197.68	9.31	--	188.37	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	3/13/2008	197.68	9.72	--	187.96	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-4	6/9/2008	197.68	9.55	--	188.13	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-4	10/8/2008	197.68	10.31	--	187.37	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-4	1/15/2009	197.68	8.13	--	189.55	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-4	4/2/2009	197.68	8.13	--	189.55	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	<1.00	<1.00
MW-4	3/22/2010	27.01	8.72	--	18.29	<50	--	--	--	--	<1.0	<1.0	<1.0	<3	<1.0	--	--	--	--
MW-4	6/22/2010	27.01	8.14	--	18.87	<50	--	--	--	--	<0.50	<0.50	<0.50	<1.0	<1.0 H	--	--	--	--
MW-4	3/10/2011	27.01	6.73	--	20.28	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-4	9/19/2011	27.01	9.71	--	17.30	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-4	3/16/2012	27.01	6.70	--	20.31	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-4	7/26/2012	27.01	9.55	--	17.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3. Groundwater Gauging Data and Analytical Results
Former ARCO Service Station 5544
19918 68th Avenue South,
Kent, Washington

Well ID	Date	TOC	DTW	LNAPL (ft)	GWE	TPH-GRO	TPH-DRO	TPH-DRO SGT	TPH-HRO	TPH-HRO SGT	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
MTCA Method A Cleanup Levels						**800/1,000**	**500**	**500**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
MW-4	3/1/2013	27.01	8.86	--	18.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	5/22/2013	27.01	8.96	--	18.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	7/24/2013	27.01	10.31	--	16.70	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	10/4/2013	27.01	8.15	--	18.86	<100	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-4	2/12/2014	27.01	8.31	--	18.70	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	5/14/2014	27.01	8.41	--	18.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	8/5/2014	27.01	9.93	--	17.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	12/2/2014	27.01	8.54	--	18.47	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	6/5/2015	27.01	10.01	--	17.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	12/15/2015	27.01	7.43	--	19.58	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	3/25/2016	27.01	8.19	--	18.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	6/7/2016	27.01	9.14	--	17.87	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	9/19/2016	27.01	9.89	--	17.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	5/3/2021	27.01	8.74	--	18.27	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	1/28/2022	27.01	7.83	--	19.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	5/23/2022	27.01	8.60	--	18.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	8/11/2022	27.01	9.35	--	17.66	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	11/9/2022	27.01	9.17	--	17.84	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	6/20/2025	27.01	9.02	--	17.99	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	3/12/2002	198.21	8.82	--	189.39	**52,100**	--	--	--	--	**7,210**	**3,770**	**2,670**	**9,070**	**233**	--	--	**124**	<1.00
MW-5	8/30/2002	198.21	11.20	--	187.01	**55,200**	--	--	--	--	**15,400**	**2,200**	**1,590**	**7,160**	**478**	<0.01	**<100**	**144**	<1.00
MW-5	3/24/2003	198.21	8.70	--	189.51	**48,400**	--	--	--	--	**19,900**	282	331	**1,230**	**1,540**	--	--	14.2	<1.00
MW-5	4/22/2003	198.21	9.52	--	188.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	6/30/2003	198.21	10.87	--	187.34	**62,900**	--	--	--	--	**17,900**	**1,500**	**1,110**	**4,070**	**571**	--	--	**63.9**	8.35
MW-5	9/15/2003	198.21	11.60	--	186.61	**61,600**	--	--	--	--	**19,300**	554	**1,250**	**4,640**	**520**	--	--	9.75	<1.00
MW-5	12/30/2003	198.21	9.70	--	188.51	**52,600**	--	--	--	--	**12,500**	**1,630**	**1,910**	**7,180**	**307**	--	--	9.85	<1.00
MW-5	7/13/2004	198.21	10.83	--	187.38	**41,800**	--	--	--	--	**6,090**	**3,230**	**2,680**	**10,500**	**<100**	--	--	2.82	<1.00
MW-5	11/1/2004	198.21	8.39	--	189.82	**6,090**	--	--	--	--	**3,630**	<10.0	26	139	**925**	--	--	<1.00	--
MW-5	3/3/2005	198.21	10.83	--	187.38	<80.0	--	--	--	--	1.8	<2.50	<2.50	<5.00	**835**	--	--	<1	--
MW-5	6/12/2005	198.21	10.30	--	187.91	**1,110**	--	--	--	--	**129**	0.82	33.1	289	**196**	--	--	<1.00	--
MW-5	8/28/2005	198.21	11.30	--	186.91	**1,330**	--	--	--	--	**116**	<0.500	112	53.5	**148**	--	--	<1.00	--
MW-5	11/17/2005	198.21	10.03	--	188.18	<50.0	--	--	--	--	1.21	<2.50	<2.50	<5.00	**161**	--	--	4.63	--
MW-5	3/5/2006	198.21	9.23	--	188.98	143	--	--	--	--	**8.54**	<0.500	11.4	2.66	**115**	--	--	<1.00	--
MW-5	10/24/2006	198.21	14.30	--	183.91	104	--	--	--	--	1.43	<0.500	<0.500	<3.00	**91.8**	--	--	--	--
MW-5	3/22/2007	198.21	8.76	--	189.45	<50.0	--	--	--	--	3.25	<0.500	<0.500	<3.00	**79**	--	--	--	--
MW-5	5/30/2007	198.21	10.19	--	188.02	**3,080**	--	--	--	--	**2,220**	6.83	**1,210**	969	**57.6**	--	--	--	--
MW-5	9/4/2007	198.21	10.46	--	187.75	**1,180**	--	--	--	--	**255**	<0.500	8.34	4.99	16	--	--	--	--
MW-5	11/13/2007	198.21	10.73	--	187.48	225	--	--	--	--	**9.92**	<0.500	<0.500	<3.00	17.4	--	--	--	--
MW-5	3/12/2008	198.21	9.37	--	188.84	511	--	--	--	--	**45.4**	0.5	4.54	34	<1.00	--	--	--	--
MW-5	6/9/2008	198.21	8.27	--	189.94	243	--	--	--	--	4.18	17.9	3.09	66.7	<1.00	--	--	--	--
MW-5	8/6/2008	198.21	10.74	--	187.47	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-5	10/8/2008	198.21	10.80	--	187.41	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-5	1/15/2009	198.21	8.29	--	189.92	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	**93.9**	--	--	--	--
MW-5	4/2/2009	198.21	9.30	--	188.91	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	1.39	--	--	<1.00	<1.00
MW-5	10/14/2009	198.21	10.30	--	187.91	<50.0	--	--	--	--	<1.00	<1.00	<1.00	<2.00	<1.00	--	--	<2.00	--
MW-5	3/22/2010	27.53	8.93	--	18.60	64	--	--	--	--	<1.0	<1.0	<1.0	<3	<1.0	--	--	--	--
MW-5	6/22/2010	27.53	8.61	--	18.92	140	--	--	--	--	<0.50	<0.50	<0.50	<1.0	<1.0 H	--	--	--	--
MW-5	3/10/2011	27.53	7.60	--	19.93	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	1.1	--	--	<10.0	<10.0
MW-5	9/19/2011	27.53	10.17	--	17.36	830	--	--	--	--	<1.0	<1.0	3.6	16.6	<1.0	--	--	<10.0	<10.0
MW-5	3/16/2012	27.53	7.56	--	19.97	167	--	--	--	--	<1.0	<1.0	<1.0	<3.0	2.9	--	--	<10.0	<10.0
MW-5	7/26/2012	27.53	9.83	--	17.70	627	--	--	--	--	1.3	<1.0	1.1	11.2	<1.0	--	--	<10.0	<10.0
MW-5	3/1/2013	27.53	9.52	--	18.01	575	--	--	--	--	3.9	<1.0	<1.0	7.8	--	--	--	6.6	<10.0
MW-5	5/22/2013	27.53	9.48	--	18.05	**1,020**	--	--	--	--	**9.5**	<1.0	26	45.2	1.3	--	--	<10.0	<10.0
MW-5	7/24/2013	27.53	10.59	--	16.94	589	--	--	--	--	2.1	<1.0	<1.0	<3.0	1.1	--	--	**27.4**	<10.0

Table 3. Groundwater Gauging Data and Analytical Results
Former ARCO Service Station 5544
19918 68th Avenue South,
Kent, Washington

Well ID	Date	TOC	DTW	LNAPL (ft)	GWE	TPH-GRO	TPH-DRO	TPH-DRO SGT	TPH-HRO	TPH-HRO SGT	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
MTCA Method A Cleanup Levels						**800/1,000**	**500**	**500**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
MW-5	10/4/2013	27.53	9.23	--	18.30	<100	--	--	--	--	<1.0	<1.0	<1.0	<3.0	**58**	--	--	<10.0	<10.0
MW-5	10/4/2013	27.53	9.23	--	18.30	<100	--	--	--	--	<1.0	<1.0	<1.0	<3.0	**60.6**	--	--	<10.0	<10.0
MW-5	2/12/2014	27.53	8.79	--	18.74	150 J	--	--	--	--	0.98 J	<0.70	<0.80	<0.80	1.8 J	--	--	<4.7	<4.7
MW-5	5/14/2014	27.53	8.44	--	19.09	100 J	--	--	--	--	2.3	<0.50	<0.50	<0.50	1.2	--	--	0.12 J	0.21 J
MW-5	8/5/2014	27.53	10.35	--	17.18	330	--	--	--	--	1.3	<0.50	<0.50	1.8	1.5	--	--	0.086 J	0.10 J
MW-5	12/2/2014	27.53	9.01	--	18.52	93 J	67 J	--	<65	--	<0.50	<0.50	<0.50	<0.50	**31**	--	--	0.25 J	--
MW-5	6/5/2015	27.53	10.28	--	17.25	550	**1,700**	--	<67	--	2.6	<0.50	0.68 J	4.2	2.3	--	--	0.51 J	--
MW-5	12/15/2015	27.53	7.85	--	19.68	73 J	<28	--	<66	--	<0.50	<0.50	<0.50	<0.50	**85**	--	--	--	--
MW-5	3/25/2016	27.53	8.25	--	19.28	220 J	**1,100**	--	<100	--	1.3	<0.50	<0.50	<0.50	4.1	--	--	--	--
MW-5	6/7/2016	27.53	9.81	--	17.72	370	**1,500**	--	<110	--	<0.50	<0.50	<0.50	<0.50	2.2	--	--	--	--
MW-5	9/19/2016	27.53	10.74	--	16.79	750	**2,300**	--	<110	--	<0.50	<0.50	<0.50	<0.50	1.5	--	--	--	--
MW-5	5/4/2021	27.53	9.34	--	18.19	61.8 B J	**561**	--	<250	--	<1.00	<1.00	<1.00	<3.00	0.224 J	<0.0100	<1.00	**15.2**	<2.00
MW-5	1/19/2022	27.53	7.77	--	19.76	<100 [<100]	263 [276]	--	<250 [285]	--	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<3.00 [<3.00]	2.00 [1.74]	**<0.0102 [<0.0104]**	<1.00 [<1.00]	**<20.0 [25.2]**	<2.00 [<2.00]
MW-5	1/28/2022	27.53	8.09	--	19.44	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	5/23/2022	27.53	8.96	--	18.57	<100 [<100]	439 [483]	--	<250 [<250]	--	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<3.00 [<3.00]	<1.00 [<1.00]	<0.00500 [<0.00500]	<1.00 [<1.00]	<2.00 [<2.00]	<2.00 [<2.00]
MW-5	8/11/2022	27.53	9.89	--	17.64	117 [109]	**724 [752]**	--	<250 [<250]	--	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<3.00 [<3.00]	<1.00 [<1.00]	<0.00500 [<0.00500]	<1.00 [<1.00]	2.32 [2.24]	<2.00 [<2.00]
MW-5	11/9/2022	27.53	10.1	--	17.43	<100 [<100]	258 [293]	--	<250 [<250]	--	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<3.00 [<3.00]	4.50 [4.78]	<0.00500 [<0.00500]	<1.00 [<1.00]	6.94 [2.18]	<2.00 [<2.00]
MW-5	6/20/2025	27.53	9.83	--	17.70	<100	<200	--	<250	--	<1.00	<1.00	<1.00	<3.00	<1.00	**<0.0200**	<1.00	<2.00	--
MW-6	3/12/2002	198.24	8.90	--	189.34	**187,000**	--	--	--	--	**49,800**	**27,600**	**2,650**	**12,300**	**6,840**	--	--	**176**	<1.00
MW-6	8/30/2002	198.24	11.11	--	187.13	**105,000**	--	--	--	--	**36,900**	**6,910**	**1,410**	**6,770**	**1,230**	<0.01	**<200**	**157**	<1.00
MW-6	3/24/2003	198.24	8.60	--	189.64	**101,000**	--	--	--	--	**26,800**	**7,090**	**1,690**	**7,780**	**2,480**	--	--	**19.7**	<1.00
MW-6	4/22/2003	198.24	9.33	--	188.91	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	6/30/2003	198.24	10.35	--	187.89	**61,700**	--	--	--	--	**18,700**	**4,610**	**990**	**4,030**	**860**	--	--	**46.7**	2.27
MW-6	9/15/2003	198.24	11.50	--	186.74	**109,000**	--	--	--	--	**29,000**	**8,690**	**1,720**	**7,310**	**1,390**	--	--	12.6	<1.00
MW-6	12/30/2003	198.24	9.60	0.2	188.64	**333,000**	--	--	--	--	**45,200**	**64,400**	**6,030**	**31,300**	**1,960**	--	--	1.85	<1.00
MW-6	7/13/2004	198.24	10.27	0.08	187.97	**513,000**	--	--	--	--	**52,500**	**98,600**	**8,300**	**43,600**	**3,620**	--	--	<1.00	<1.00
MW-6	11/1/2004	198.24	10.32	--	187.92	123	--	--	--	--	**29.6**	10.4	<5.00	16.5	**947**	--	--	<1.00	--
MW-6	3/3/2005	198.24	13.23	--	185.01	<80.0	--	--	--	--	<0.400	<1.00	<1.00	<2.00	**227**	--	--	<1	--
MW-6	6/12/2005	198.24	10.17	--	188.07	**7,780**	--	--	--	--	**431**	919	**978**	**4,170**	**349**	--	--	<1.00	--
MW-6	8/28/2005	198.24	11.26	--	186.98	**10,400**	--	--	--	--	**760**	207	385	**1,660**	**579**	--	--	<1.00	--
MW-6	11/17/2005	198.24	10.93	--	187.31	<50.0	--	--	--	--	0.6	<0.500	<0.500	<1.00	**139**	--	--	<1.00	--
MW-6	3/5/2006	198.24	9.22	--	189.02	304	--	--	--	--	<0.500	8.16	2.94	54.5	**107**	--	--	<1.00	--
MW-6	10/24/2006	198.24	11.21	--	187.03	**11,800**	--	--	--	--	**570**	14.2	608	**1,730**	**1,020**	--	--	--	--
MW-6	3/22/2007	198.24	8.55	--	189.69	**41,500**	--	--	--	--	**1,100**	**2,380**	**2,400**	**16,300**	**961**	--	--	--	--
MW-6	5/30/2007	198.24	9.90	--	188.34	**62,700**	--	--	--	--	**1,260**	921	**1,990**	**15,100**	**307**	--	--	--	--
MW-6	9/4/2007	198.24	10.41	--	187.83	**91,800**	--	--	--	--	**1,350**	**2,500**	**3,480**	**14,900**	**<100**	--	--	--	--
MW-6	11/13/2007	198.24	10.54	--	187.70	**5,380**	--	--	--	--	**196**	<0.500	366	76.8	**1,300**	--	--	--	--
MW-6	3/12/2008	198.24	9.45	--	188.79	**85,300**	--	--	--	--	**1,030**	**2,270**	**2,470**	**17,100**	**555**	--	--	--	--
MW-6	6/9/2008	198.24	7.99	--	190.25	**139,000**	--	--	--	--	**238**	--	**1,580**	164	<1.00	--	--	--	--
MW-6	8/6/2008	198.24	10.56	--	187.68	**69,700**	--	--	--	--	**678**	34	**2,350**	**18,900**	**22.9**	--	--	--	--
MW-6	10/8/2008	198.24	10.58	--	187.66	**68,900**	--	--	--	--	**470**	24.7	**1,130**	**12,500**	**95**	--	--	--	--
MW-6	1/15/2009	198.24	8.21	--	190.03	**22,500**	--	--	--	--	**182**	10.7	**746**	**2,550**	**687**	--	--	--	--
MW-6	4/2/2009	198.24	9.08	--	189.16	**80,100**	--	--	--	--	**415**	164	**2,240**	**18,100**	**57.6**	--	--	<1.00	<1.00
MW-6	10/14/2009	198.24	9.25	--	188.99	**71,000**	--	--	--	--	**580**	15	**3,300**	**22,000**	**41**	--	--	<2.00	--
MW-6	3/22/2010	27.50	8.77	--	18.73	**100,000**	--	--	--	--	**480**	390	**2,500**	**19,400**	6.2	--	--	--	--
MW-6	6/22/2010	27.50	8.39	--	19.11	**96,000**	--	--	--	--	**460**	300	**2,200**	**19,000**	**<50 H**	--	--	--	--
MW-6	3/10/2011	27.50	7.51	--	19.99	**103,000**	--	--	--	--	**314**	189	**1,150**	**23,400**	<1.0	--	--	<10.0	<10.0
MW-6	9/19/2011	27.50	10.47	--	17.03	**67,900**	--	--	--	--	**300**	45.4	**1,800**	**8,320**	10.4	--	--	<10.0	<10.0
MW-6	3/16/2012	27.50	7.49	--	20.01	**46,000**	--	--	--	--	**304**	19.8	**1,640**	**4,990**	10.1	--	--	<10.0	<10.0
MW-6	7/26/2012	27.50	9.68	--	17.82	**51,100**	--	--	--	--	**233**	20.5	**1,790**	**5,670**	7.3	--	--	<10.0	<10.0
MW-6	3/1/2013	27.50	9.73	--	17.77	**5,040**	--	--	--	--	4.2	6	92.8	**1,250**	--	--	--	<3.0	<10.0
MW-6	5/22/2013	27.50	9.48	--	18.02	159	--	--	--	--	<1.0	<1.0	4.8	35.7	1.5	--	--	<10.0	<10.0
MW-6	7/24/2013	27.50	10.49	--	17.01	<100	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-6	10/4/2013	27.50	9.05	--	18.45	783	--	--	--	--	**8.6**	1.5	11.3	28	1.4	--	--	<10.0	<10.0

Table 3. Groundwater Gauging Data and Analytical Results
Former ARCO Service Station 5544
19918 68th Avenue South,
Kent, Washington

Well ID	Date	TOC	DTW	LNAPL (ft)	GWE	TPH-GRO	TPH-DRO	TPH-DRO SGT	TPH-HRO	TPH-HRO SGT	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
MTCA Method A Cleanup Levels						**800/1,000**	**500**	**500**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
MW-6	2/12/2014	27.50	9.14	--	18.36	**3,400 [3,400]**	--	--	--	--	4.3 J [4.7 J]	<3.5 [<3.5]	55 [51]	24 J [23 J]	<2.5 [<2.5]	--	--	<4.7 [<4.7]	<4.7 [<4.7]
MW-6	5/14/2014	27.50	8.05	--	19.45	**14,000**	--	--	--	--	<2.5	<2.5	57	420	<2.5	--	--	0.17 J	<0.085
MW-6	8/5/2014	27.50	10.31	--	17.19	**7,500**	--	--	--	--	3.6 J	<2.5	120	230	<2.5	--	--	0.15 J	<0.082
MW-6	12/2/2014	27.50	8.91	--	18.59	**8,500**	**2,200**	--	210 J	--	5	2.7	110	330	2.6	--	--	0.083 J	--
MW-6	6/5/2015	27.50	10.02	--	17.48	**6,900**	**2,000**	--	<66	--	2.8	0.91 J	440	420	0.60 J	--	--	0.37 J	--
MW-6	12/15/2015	27.50	7.80	--	19.70	**2,400**	170	--	<66	--	0.89 J	<0.50	6.6	3.8	7.7	--	--	--	--
MW-6	3/25/2016	27.50	7.91	--	19.59	**32,000 [32,000]**	**2,200**	--	360	--	1.2 J [<1.0]	1.5 J [1.5 J]	53 [50]	550 [510]	<1.0 [<1.0]	--	--	--	--
MW-6	6/7/2016	27.50	9.69	--	17.81	**22,000 [21,000]**	**2,300**	--	200 J	--	2.4 [2.6]	3.2 [3.7]	100 [120]	**1,100 [1,100]**	<1.0 [0.54 J]	--	--	--	--
MW-6	9/19/2016	27.50	10.53	--	16.97	**11,000**	**510**	--	<110	--	3.7	3.6	65	300	1.5	--	--	--	--
MW-6	5/4/2021	27.50	9.14	--	18.36	**6,840 [8,040]**	**1,690 [1,810]**	--	162 J [308]	--	1.22 [1.23]	0.962 J [0.919 J]	22.9 [24.7]	51.1 [54.1]	0.299 J [0.211J]	<0.0100 [<0.0100]	<1.00 [<1.00]	6.61 [29.7 J]	<2.00 [<2.00]
MW-6	1/28/2022	27.50	7.97	--	19.53	**9,140**	**1,920**	--	364	--	1.29	<1.00	13.8	90.3	<1.00	**<0.0103**	<1.00	<10.0	<2.00
MW-6	5/23/2022	27.50	10.48	--	17.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	8/11/2022	27.50	9.75	--	17.75	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	11/9/2022	27.50	9.93	--	17.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	6/20/2025	27.50	9.70	--	17.80	**3,330 B**	**1,540**	324	407	<250	1.17	<1.00	9.98	15.2	<1.00	**<0.0228**	<1.00	<2.00	--
MW-7	4/22/2003	197.32	9.24	--	188.08	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	**15.8**	--
MW-7	6/30/2003	197.32	10.33	--	186.99	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	**25**	7.06
MW-7	9/15/2003	197.32	10.82	--	186.50	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	14.4	<1.00
MW-7	12/30/2003	197.32	9.31	--	188.01	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	1.35	<1.00
MW-7	7/13/2004	197.32	10.38	--	186.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	11/1/2004	197.32	10.20	--	187.12	<80.0	--	--	--	--	<0.200	<0.500	<0.500	<1.00	<2.00	--	--	<1.00	--
MW-7	3/3/2005	197.32	9.80	--	187.52	<80.0	--	--	--	--	<0.200	<0.500	<0.500	<1.00	<2.00	--	--	<1.00	--
MW-7	6/12/2005	197.32	9.49	--	187.83	<80.0	--	--	--	--	<0.200	<0.500	<0.500	<1.00	<2.00	--	--	1.38	--
MW-7	8/28/2005	197.32	10.63	--	186.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	11/17/2005	197.32	9.54	--	187.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	3/5/2006	197.32	8.96	--	188.36	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	3/12/2008	197.32	9.42	--	187.90	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-7	6/9/2008	197.32	9.29	--	188.03	<50.0	--	--	--	--	<0.500	3.18	1.67	32.5	<1.00	--	--	--	--
MW-7	1/15/2009	197.32	7.65	--	189.67	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-7	4/2/2009	197.32	8.52	--	188.80	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	<1.00	<1.00
MW-7	10/14/2009	197.32	8.97	--	188.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	3/22/2010	26.64	8.39	--	18.25	<50	--	--	--	--	<1.0	<1.0	<1.0	<3	<1.0	--	--	--	--
MW-7	6/22/2010	26.64	7.82	--	18.82	<50	--	--	--	--	<0.50	<0.50	<0.50	<1.0	<1.0 H	--	--	--	--
MW-7	3/10/2011	26.64	6.27	--	20.37	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-7	9/19/2011	26.64	9.38	--	17.26	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-7	3/16/2012	26.64	6.31	--	20.33	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-7	7/26/2012	26.64	9.26	--	17.38	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	3/1/2013	26.64	8.52	--	18.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	5/22/2013	26.64	8.60	--	18.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	7/24/2013	26.64	9.97	--	16.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	10/4/2013	26.64	7.82	--	18.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	2/12/2014	26.64	7.91	--	18.73	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	12/2/2014	26.64	8.13	--	18.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	6/5/2015	26.64	9.86	--	16.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	12/15/2015	26.64	6.50	--	20.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	3/25/2016	26.64	8.00	--	18.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	6/7/2016	26.64	8.77	--	17.87	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	9/19/2016	26.64	9.58	--	17.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	5/3/2021	26.64	8.41	--	18.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	1/28/2022	26.64	7.47	--	19.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	5/23/2022	26.64	8.31	--	18.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	8/11/2022	26.64	8.99	--	17.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	11/9/2022	26.64	8.85	--	17.79	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	6/20/2025	26.64	8.70	--	17.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3. Groundwater Gauging Data and Analytical Results
Former ARCO Service Station 5544
19918 68th Avenue South,
Kent, Washington

Well ID	Date	TOC	DTW	LNAPL (ft)	GWE	TPH-GRO	TPH-DRO	TPH-DRO SGT	TPH-HRO	TPH-HRO SGT	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
MTCA Method A Cleanup Levels						**800/1,000**	**500**	**500**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
MW-8	4/22/2003	196.68	8.45	--	188.23	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	14.7	--
MW-8	6/30/2003	196.68	9.61	--	187.07	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	12.8	4.24
MW-8	9/15/2003	196.68	10.20	--	186.48	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	**16.9**	<1.00
MW-8	12/30/2003	196.68	8.60	--	188.08	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	1.53	<1.00
MW-8	7/13/2004	196.68	9.56	--	187.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	11/1/2004	196.68	9.45	--	187.23	<80.0	--	--	--	--	<0.200	<0.500	<0.500	<1.00	<2.00	--	--	<1.00	--
MW-8	3/3/2005	196.68	8.94	--	187.74	<80.0	--	--	--	--	<0.200	<0.500	<0.500	<1.00	<2.00	--	--	<1	--
MW-8	6/12/2005	196.68	8.81	--	187.87	<80.0	--	--	--	--	<0.200	<0.500	<0.500	<1.00	<2.00	--	--	<1.00	--
MW-8	8/28/2005	196.68	9.97	--	186.71	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	11/17/2005	196.68	8.85	--	187.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	3/5/2006	196.68	8.16	--	188.52	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	3/12/2008	196.68	8.68	--	188.00	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-8	6/9/2008	196.68	8.51	--	188.17	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-8	1/15/2009	196.68	7.13	--	189.55	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-8	4/2/2009	196.68	7.80	--	188.88	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	<1.00	<1.00
MW-8	10/14/2009	196.68	8.45	--	188.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	3/22/2010	26.00	7.59	--	18.41	<50	--	--	--	--	<1.0	<1.0	<1.0	<3	<1.0	--	--	--	--
MW-8	6/22/2010	26.00	7.23	--	18.77	<50	--	--	--	--	<0.50	<0.50	<0.50	<1.0	<1.0 H	--	--	--	--
MW-8	3/10/2011	26.00	5.56	--	20.44	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-8	9/19/2011	26.00	8.76	--	17.24	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-8	3/16/2012	26.00	5.68	--	20.32	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-8	7/26/2012	26.00	8.52	--	17.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	3/1/2013	26.00	--	--	--	Well abandoned													
MW-9	4/22/2003	197.42	8.77	--	188.65	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	**17.2**	--
MW-9	6/30/2003	197.42	10.25	--	187.17	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	**47.3**	4.67
MW-9	9/15/2003	197.42	10.83	--	186.59	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	12.9	<1.00
MW-9	12/30/2003	197.42	8.99	--	188.43	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	**17.9**	<1.00
MW-9	7/13/2004	197.42	10.08	--	187.34	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	11/1/2004	197.42	9.75	--	187.67	<80.0	--	--	--	--	<0.200	<0.500	<0.500	<1.00	<2.00	--	--	1.79	--
MW-9	3/3/2005	197.42	8.98	--	188.44	<80.0	--	--	--	--	<0.200	<0.500	<0.500	<1.00	<2.00	--	--	<1	--
MW-9	6/12/2005	197.42	9.49	--	187.93	<80.0	--	--	--	--	<0.200	<0.500	<0.500	<1.00	<2.00	--	--	<1.00	--
MW-9	8/28/2005	197.42	10.59	--	186.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	11/17/2005	197.42	9.52	--	187.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	3/5/2006	197.42	8.55	--	188.87	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	3/12/2008	197.42	9.20	--	188.22	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-9	6/9/2008	197.42	8.91	--	188.51	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-9	8/6/2008	197.42	10.18	--	187.24	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-9	10/8/2008	197.42	10.10	--	187.32	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-9	1/15/2009	197.42	7.61	--	189.81	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-9	4/2/2009	197.42	8.50	--	188.92	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	1.32	<1.00
MW-9	3/22/2010	26.76	8.41	--	18.35	<50	--	--	--	--	<1.0	<1.0	<1.0	<3	<1.0	--	--	--	--
MW-9	6/22/2010	26.76	7.88	--	18.88	<50	--	--	--	--	<0.50	<0.50	<0.50	<1.0	<1.0 H	--	--	--	--
MW-9	3/10/2011	26.76	6.57	--	20.19	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-9	9/19/2011	26.76	9.62	--	17.14	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-9	3/16/2012	26.76	6.59	--	20.17	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-9	7/26/2012	26.76	9.16	--	17.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	3/1/2013	26.76	8.62	--	18.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	5/22/2013	26.76	8.95	--	17.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	7/24/2013	26.76	9.86	--	16.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	10/4/2013	26.76	8.25	--	18.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	2/12/2014	26.76	8.24	--	18.52	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	5/14/2014	26.76	7.84	--	18.92	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	8/5/2014	26.76	9.71	--	17.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3. Groundwater Gauging Data and Analytical Results
Former ARCO Service Station 5544
19918 68th Avenue South,
Kent, Washington

Well ID	Date	TOC	DTW	LNAPL (ft)	GWE	TPH-GRO	TPH-DRO	TPH-DRO SGT	TPH-HRO	TPH-HRO SGT	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
MTCA Method A Cleanup Levels						**800/1,000**	**500**	**500**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
MW-9	12/2/2014	26.76	8.32	--	18.44	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	6/5/2015	26.76	9.68	--	17.08	<50	<29	--	<67	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	0.15 J	--
MW-9	12/15/2015	26.76	7.14	--	19.62	<50	<28	--	<66	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-9	3/25/2016	26.76	7.72	--	19.04	<50	<46	--	<100	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-9	6/7/2016	26.76	9.02	--	17.74	<50	<47	--	<100	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-9	9/19/2016	26.76	9.93	--	16.83	<50	<47	--	<110	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-9	5/3/2021	26.76	8.57	--	18.19	<100	<200	--	<250	--	<1.00	<1.00	<1.00	<3.00	<1.00	<0.0100	<1.00	1.06 J	1.22 J
MW-9	1/28/2022	26.76	7.41	--	19.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	5/23/2022	26.76	8.28	--	18.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	8/11/2022	26.76	9.19	--	17.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	11/9/2022	26.76	9.23	--	17.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	6/20/2025	26.76	9.05	--	17.71	<100	<200	--	<250	--	<1.00	<1.00	<1.00	<3.00	<1.00	**<0.0200**	<1.00	<2.00	--
MW-10	4/22/2003	197.70	8.59	--	189.11	278	--	--	--	--	**30.9**	<0.500	<0.500	28.5	<2.00	--	--	5.92	--
MW-10	6/30/2003	197.70	10.48	--	187.22	195	--	--	--	--	**38**	<0.500	0.535	5.73	<5.00	--	--	**19.8**	11.7
MW-10	9/15/2003	197.70	10.93	--	186.77	154	--	--	--	--	**42**	0.5	<0.500	4.18	<1.00	--	--	7.69	<1.00
MW-10	12/30/2003	197.70	8.81	--	188.89	312	--	--	--	--	**39.3**	<0.500	<0.500	24.6	<1.00	--	--	8.78	<1.00
MW-10	7/13/2004	197.70	10.35	--	187.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	11/1/2004	197.70	8.55	--	189.15	<80.0	--	--	--	--	<0.200	<0.500	<0.500	<1.00	<2.00	--	--	<1.00	--
MW-10	3/3/2005	197.70	9.40	--	188.30	<80.0	--	--	--	--	<0.200	<0.500	<0.500	<1.00	<2.00	--	--	<1	--
MW-10	6/12/2005	197.70	9.59	--	188.11	<80.0	--	--	--	--	<0.200	<0.500	<0.500	<1.00	<2.00	--	--	<1.00	--
MW-10	8/28/2005	197.70	10.75	--	186.95	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	11/17/2005	197.70	9.79	--	187.91	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	<1.00	--
MW-10	3/5/2006	197.70	8.40	--	189.30	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	3/12/2008	197.70	9.11	--	188.59	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-10	6/9/2008	197.70	8.55	--	189.15	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-10	1/15/2009	197.70	7.66	--	190.04	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-10	4/2/2009	197.70	8.55	--	189.15	<50.0	--	--	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	<1.00	<1.00
MW-10	3/22/2010	27.01	8.18	--	18.83	<50	--	--	--	--	<1.0	<1.0	<1.0	<3	<1.0	--	--	--	--
MW-10	6/22/2010	27.01	7.98	--	19.03	<50	--	--	--	--	<0.50	<0.50	<0.50	<1.0	**<50 H**	--	--	--	--
MW-10	3/10/2011	27.01	7.11	--	19.90	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-10	9/19/2011	27.01	9.80	--	17.21	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-10	3/16/2012	27.01	7.01	--	20.00	<50.0	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-10	7/26/2012	27.01	9.12	--	17.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	3/1/2013	27.01	8.81	--	18.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	5/22/2013	27.01	8.99	--	18.02	<100	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-10	7/24/2013	27.01	9.89	--	17.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	10/4/2013	27.01	8.80	--	18.21	<100	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	11.0
MW-10	2/12/2014	27.01	8.69	--	18.32	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	5/14/2014	27.01	7.52	--	19.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	8/5/2014	27.01	9.85	--	17.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	12/2/2014	27.01	8.51	--	18.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	6/5/2015	27.01	9.64	--	17.37	120 J	<29	--	<67	--	<0.50	<0.50	4.6	8	<0.50	--	--	<0.082	--
MW-10	12/15/2015	27.01	7.80	--	19.21	<50	<29	--	<67	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-10	3/25/2016	27.01	7.38	--	19.63	<50	<47	--	<100	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-10	6/7/2016	27.01	9.36	--	17.65	<50	<47	--	<100	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-10	9/19/2016	27.01	10.07	--	16.94	<50	<49	--	<110	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-10	5/4/2021	27.01	8.71	--	18.30	41.8 B J	142 J	--	141 J	--	<1.00	<1.00	<1.00	<3.00	<1.00	<0.0100	<1.00	<2.00	<2.00
MW-10	1/28/2022	27.01	7.55	--	19.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	5/23/2022	27.01	8.20	--	18.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	8/11/2022	27.01	9.43	--	17.58	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	11/9/2022	27.01	9.60	--	17.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	6/20/2025	27.01	9.38	--	17.63	<500	<200	--	<250	--	<1.00	<1.00	<1.00	<3.00	<1.00	**<0.0200**	<1.00	<2.00	--
MW-11	8/5/2014	26.88	9.82	--	17.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3. Groundwater Gauging Data and Analytical Results
Former ARCO Service Station 5544
19918 68th Avenue South,
Kent, Washington

Well ID	Date	TOC	DTW	LNAPL (ft)	GWE	TPH-GRO	TPH-DRO	TPH-DRO SGT	TPH-HRO	TPH-HRO SGT	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
MTCA Method A Cleanup Levels						**800/1,000**	**500**	**500**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
MW-11	8/7/2014	26.88	--	--	--	<50	--	--	--	--	0.75 J	<0.50	0.68 J	1.4	<0.50	--	--	**38.6**	2.7
MW-11	12/2/2014	26.88	8.31	--	18.57	<50	<28	--	<66	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	0.34 J	--
MW-11	6/5/2015	26.88	9.90	--	16.98	<50	<28	--	<66	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	1.2	--
MW-11	12/15/2015	26.88	7.31	--	19.57	<50	<28	--	<66	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-11	3/25/2016	26.88	7.90	--	18.98	<50	<46	--	<100	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-11	6/7/2016	26.88	9.08	--	17.80	<50	<48	--	<110	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-11	9/19/2016	26.88	9.96	--	16.92	<50	<47	--	<110	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-11	5/3/2021	26.88	8.66	--	18.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	1/19/2022	26.88	6.98	--	19.90	<100	<200	--	<250	--	<1.00	<1.00	<1.00	<3.00	<1.00	**<0.0102**	<1.00	**<20.0**	<2.00
MW-11	1/28/2022	26.88	7.57	--	19.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	5/23/2022	26.88	8.41	--	18.47	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	8/11/2022	26.88	9.26	--	17.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	11/9/2022	26.88	9.22	--	17.66	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	6/20/2025	26.88	9.08	--	17.80	<100	<200	--	<250	--	<1.00	<1.00	<1.00	<3.00	<1.00	**<0.0200**	<1.00	<2.00	--
MW-12	8/5/2014	27.26	10.25	--	17.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	8/7/2014	27.26	--	--	--	**3,100**	--	--	--	--	**700**	2.1	280	580	**88**	--	--	4.7	0.15 J
MW-12	12/2/2014	27.26	8.99	--	18.27	**2,000**	430	--	130 J	--	**310**	0.75 J	270	360	**96**	--	--	0.53 J	--
MW-12	6/5/2015	27.26	10.03	--	17.23	**4,800**	**570**	--	<66	--	**120**	3.2	610	480	<0.50	--	--	0.30 J	--
MW-12	12/15/2015	27.26	7.75	--	19.51	550	110	--	<66	--	**10**	<0.50	51	15	**110**	--	--	--	--
MW-12	3/25/2016	27.26	7.93	--	19.33	85 J	<48	--	<110	--	<0.50	<0.50	3.9	2.2	0.82 J	--	--	--	--
MW-12	6/7/2016	27.26	9.68	--	17.58	**1,400**	470	--	<100	--	**5.1**	<0.50	150	48	0.64 J	--	--	--	--
MW-12	9/19/2016	27.26	10.64	--	16.62	**1,900**	**1,200**	--	<110	--	**12**	0.93 J	240	54	<0.50	--	--	--	--
MW-12	5/3/2021	27.26	9.17	--	18.09	327 B	**690**	--	92.5 J	--	<1.00	0.454 J	0.289 J	1.96 J	0.268 J	<0.0100	<1.00	<2.00	0.538 J
MW-12	1/19/2022	27.26	7.43	--	19.83	343	267	--	<250	--	<1.00	<1.00	<1.00	<3.00	1.33	**<0.0160**	<1.00	**<20.0**	<2.00
MW-12	1/28/2022	27.26	7.87	--	19.39	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	5/23/2022	27.26	8.74	--	18.52	312 B	**521**	--	<250	--	<1.00	<1.00	<1.00	<3.00	<1.00	<0.00500	<1.00	<2.00	<2.00
MW-12	8/11/2022	27.26	9.66	--	17.60	**1,550**	**673**	--	<250	--	2.27	<1.00	1.80	<3.00	<1.00	**<0.250**	<1.00	<2.00	<2.00
MW-12	11/9/2022	27.26	10.09	--	17.17	**2,070**	**1,090**	--	<250	--	<1.00	<1.00	<1.00	3.14	**43.8**	**<0.500**	<1.00	<2.00	<2.00
MW-12	6/20/2025	27.26	9.75	--	17.51	688 B	**627**	<200	<250	<250	<1.00	<1.00	1.23	<3.00	<1.00	**<0.0202**	<1.00	<2.00	--
MW-13	8/5/2014	27.27	10.21	--	17.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	8/7/2014	27.27	--	--	--	**1,000**	--	--	--	--	2	<0.50	12	94	**90**	--	--	6.1	0.30 J
MW-13	12/2/2014	27.27	8.88	--	18.39	**11,000**	**950**	--	230 J	--	1.2	0.92 J	91	690	**25**	--	--	0.19 J	--
MW-13	6/5/2015	27.27	10.05	--	17.22	**9,200**	**1,000**	--	<66	--	1	0.71 J	80	470	17	--	--	0.19 J	--
MW-13	12/15/2015	27.27	7.80	--	19.47	**6,000**	410	--	<67	--	1.1	<0.50	43	150	13	--	--	--	--
MW-13	3/25/2016	27.27	7.85	--	19.42	**30,000**	**1,300**	--	<100	--	<1.0	<1.0	68	780	<1.0	--	--	--	--
MW-13	6/7/2016	27.27	9.66	--	17.61	**18,000**	**1,400**	--	<100	--	1.6	1.4	100	680	4.5	--	--	--	--
MW-13	9/19/2016	27.27	10.53	--	16.74	**6,000**	**690**	--	<100	--	2.3	1.4	110	290	3.3	--	--	--	--
MW-13	5/4/2021	27.27	9.10	--	18.17	**5,860**	**1,370**	--	143 J	--	0.858 J	0.552 J	13.4	92.9	0.190 J	<0.0100	<1.00	<2.00	<2.00
MW-13	1/19/2022	27.27	7.44	--	19.83	**5,930**	**734**	--	319	--	<1.00	<1.00	11.2	145	<1.00	**<0.0103**	<1.00	<2.00	<2.00
MW-13	1/28/2022	27.27	7.88	--	19.39	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	5/23/2022	27.27	8.66	--	18.61	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	8/11/2022	27.27	9.63	--	17.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	11/9/2022	27.27	9.99	--	17.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	6/20/2025	27.27	9.66	--	17.61	**2,630**	**1,090**	<200	<250	<250	<1.00	<1.00	3.83	28.6	<1.00	**<0.0200**	<1.00	<2.00	--
MW-14	1/28/2022	26.78	7.52	--	19.26	<100	<200	--	<250	--	<1.00	<1.00	<1.00	<3.00	<1.00	**<0.0103**	<1.00	<2.00	<2.00
MW-14	5/23/2022	26.78	8.39	--	18.39	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	8/11/2022	26.78	9.32	--	17.46	<100	<200	--	<250	--	<1.00	<1.00	<1.00	<3.00	<1.00	<0.00500	<1.00	<2.00	<2.00
MW-14	11/9/2022	26.78	9.78	--	17.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	6/20/2025	26.78	9.56	--	17.22	<100 [<100]	<200 [<200]	-- [--]	<250 [<250]	-- [--]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<3.00 [<3.00]	<1.00 [<1.00]	**<0.0200 [<0.0200]**	<1.00 [<1.00]	<2.00 [<2.00]	-- [--]
MW-15	1/19/2022	27.50	7.87	--	19.63	<100	<200	--	<250	--	<1.00	<1.00	<1.00	<3.00	<1.00	**<0.0104**	<1.00	<2.00	<2.00
MW-15	1/28/2022	27.50	8.22	--	19.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3. Groundwater Gauging Data and Analytical Results
Former ARCO Service Station 5544
19918 68th Avenue South,
Kent, Washington

Well ID	Date	TOC	DTW	LNAPL (ft)	GWE	TPH-GRO	TPH-DRO	TPH-DRO SGT	TPH-HRO	TPH-HRO SGT	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
MTCA Method A Cleanup Levels						**800/1,000**	**500**	**500**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
MW-15	5/23/2022	27.50	9.08	--	18.42	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-15	8/11/2022	27.50	9.82	--	17.68	<100	<200	--	<250	--	<1.00	<1.00	<1.00	<3.00	<1.00	<0.00500	<1.00	<2.00	<2.00
MW-15	11/9/2022	27.50	10.61	--	16.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-15	6/20/2025	27.50	10.21	--	17.29	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-16	1/19/2022	28.89	9.70	--	19.19	459	<200	--	<250	--	<1.00	<1.00	<1.00	53.2	<1.00	**<0.0101**	<1.00	<2.00	<2.00
MW-16	1/28/2022	28.89	9.73	--	19.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-16	5/23/2022	28.89	10.48	--	18.41	328 B	<200	--	<250	--	<1.00	<1.00	<1.00	15.7	<1.00	<0.00500	<1.00	<2.00	<2.00
MW-16	8/11/2022	28.89	11.19	--	17.70	636	<200	--	<250	--	<1.00	<1.00	<1.00	69.1	<1.00	**<0.0500**	<1.00	<2.00	<2.00
MW-16	11/9/2022	28.89	12.00	--	16.89	176	<200	--	<250	--	1.36	<1.00	<1.00	16.1	2.75	**<0.0500**	<1.00	<2.00	<2.00
MW-16	6/20/2025	28.89	11.63	--	17.26	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-17	1/28/2022	26.9	7.66	--	19.24	<100	<200	--	307	--	<1.00	<1.00	<1.00	<3.00	<1.00	<0.0100	<1.00	<2.00	<2.00
MW-17	5/23/2022	26.9	8.33	--	18.57	<100	217	--	299	--	<1.00	<1.00	<1.00	<3.00	<1.00	<0.00500	<1.00	<2.00	<2.00
MW-17	8/11/2022	26.9	9.51	--	17.39	<100	<200	--	252	--	<1.00	<1.00	<1.00	<3.00	<1.00	<0.00500	<1.00	<2.00	<2.00
MW-17	11/9/2022	26.9	9.72	--	17.18	<100	<200	--	<250	--	<1.00	<1.00	<1.00	<3.00	<1.00	<0.00500	<1.00	<2.00	<2.00
MW-17	6/20/2025	26.9	9.51	--	17.39	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
1. All results in micrograms per liter (µg/L).
2. TPH-GRO MTCA Method A CUL with benzene present is 800 ug/L and without benzene present is 1,000 ug/L
3. **BOLD** values are non-detect below the laboratory method detection limit (MDL), but the MDL is higher than the MTCA Method A cleanup level. For 2024 event onward, MDL has been replaced by Reporting Limit (RL).
4. **BOLD and highlighted** values are greater than their respective MTCA Method A cleanup level.
5. Groundwater Elevation - If NAPL is present, the elevation is corrected according to the following formula, (TOC elevation - depth to water) + (0.8 X NAPL Thickness)

Abbreviations and Acronyms:
-- = not applicable, not available, or not analyzed
< = analyte not detected at or greater than the laboratory detection limit
[ ] = duplicate sample result
CUL = cleanup level
ND = not detected at or greater than the laboratory detection limit
DTP = depth to product
DTW = depth to water in feet below TOC
GWE = groundwater elevation in feet relative to North American Vertical Datum of 1988
LNAPL= light nonaqueous phase liquid
MTCA = Model Toxics Control Act
SGT = Silica Gel Treatment
TOC = top of casing in feet NAVD 88
USEPA = United States Environmental Protection Agency

Laboratory Qualifiers:
B = The same analyte is found in the associated blank.
J = laboratory estimated value
H = Sample was prepped or analyzed beyond the specified holding time.

Analytical Methods:
Samples analyzed by NWTPH-Gx:
TPH-GRO = total petroleum hydrocarbons as gasoline-range organics
Samples analyzed by NWTPH-Dx/NWTPHDX-NO SGT:
TPH-DRO = total petroleum hydrocarbons as diesel-range organics
TPH-HRO = total petroleum hydrocarbons as heavy oil-range organics
Samples analyzed by NWTPHDx- SGT:
TPH-DRO
TPH-HRO
Samples analyzed by USEPA Method 8260:
Benzene, toluene, ethylbenzene, and total xylenes
EDB = 1,2-dibromoethane
EDC = 1,2-dichloroethane
MTBE = Methyl tert-butyl ether
Samples analyzed by USEPA Method 6020:
Total Lead
Dissolved Lead
Samples analyzed by USEPA Method 8011 (2025) event:
EDB = 1,2-dibromoethane

Table 4. Groundwater Analytical Results – Semivolatile Organic Compounds
Former ARCO Service Station 5544
19918 68th Avenue South,
Kent, Washington

Sample ID	Date	PAHs											cPAHs								
		Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Napthalenes	Aceanphthene	Acenaphthylene	Anthracene	Fluoranthene	Fluorene	Pheanthrene	Pyrene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Indeno(1,2,3-cd)Pyrene	Benzo(g,h,i) perylene	Total cPAHs
MTCA Method A CULs		**160**	**--**	**--**	**160**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**0.1**	**--**	**--**	**--**	**--**	**--**	**--**	**0.1**
MW-2	6/5/2015	**190 [200]**	25 [22]	25 [23]	**240 [245]**	--	--	--	--	--	--	--	<0.10 [<0.10]	<0.10 [<0.10]	<0.10 [<0.10]	<0.10 [<0.10]	<0.10 [<0.10]	<0.10 [<0.10]	<0.10 [<0.10]	--	--
MW-2	12/15/2015	2.20 [1.90]	4.3 [4.3]	0.39 [0.25]	6.89 [6.45]	--	--	--	--	--	--	--	<0.010 [<0.010]	<0.010 [<0.010]	0.019 J [<0.010]	0.015 J [<0.010]	<0.010 [<0.010]	0.026 J [<0.010]	0.026 J [<0.010]	--	0.01415
MW-2	3/25/2016	--	--	--	--	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-2	6/7/2016	**390**	47	60	**497**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	9/19/2016	--	--	--	--	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-2	5/4/2021	**169**	16.9	22.8	**209**	0.102	<0.0500	0.0582	<0.100	0.0716	0.0591	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-2	1/28/2022	94	19.1	5.96	119	0.128	<0.0500	<0.0500	<0.100	0.0900	0.0657	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-3	3/25/2016	--	--	--	--	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-3	6/7/2016	<0.032	<0.011	<0.011	<0.032	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	9/19/2016	--	--	--	--	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-3	5/3/2021	<0.250	<0.250	<0.250	<0.250	<0.0500	<0.0500	<0.0500	<0.100	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-5	6/5/2015	13	2	0.076	15.076	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	0.011 J	0.022 J	<0.010	<0.010	--	0.00832
MW-5	12/15/2015	0.22	0.055	<0.010	0.275	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-5	3/25/2016	--	--	--	--	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-5	6/7/2016	1.7	0.16	0.012 J	1.872	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	9/19/2016	--	--	--	--	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-5	5/4/2021	0.134 J	0.0813 J	<0.250	0.2153	<0.0500	<0.0500	<0.0500	<0.100	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-5	1/19/2022	<0.250	<0.250	<0.250	<0.250	<0.0500	<0.0500	<0.0500	<0.100	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-5	5/23/2022	<0.250 [<0.250]	<0.250 [<0.250]	<0.250 [<0.250]	<0.250 [<0.250]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.100 [<0.100]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	--
MW-5	8/11/2022	3.87 [4.62]	0.304 [0.404]	<0.250 [<0.250]	4.174 [5.024]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.100 [<0.100]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500 J4]	<0.0500 [<0.0500]	--
MW-5	11/9/2022	0.795 [0.806]	<0.250 [<0.250]	<0.250 [<0.250]	0.795 [0.806]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.100 [<0.100]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	--
MW-6	6/5/2015	**170**	23	20	**213**	--	--	--	--	--	--	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	--	--
MW-6	12/15/2015	6.6	8.8	1.6	17	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-6	3/25/2016	--	--	--	--	--	--	--	--	--	--	--	0.016 J	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	0.00865
MW-6	6/7/2016	120	29	26	**175**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	9/19/2016	--	--	--	--	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	0.015 J	<0.010	<0.010	--	0.00765
MW-6	5/4/2021	152 [74.6]	60.5 [20.0]	88.3 [28.1]	**300.8** [122.7]	0.338 [0.126]	<0.0500 [<0.0500]	0.151 [0.0948]	<0.100 [<0.100]	0.237 [0.0837]	0.174 [0.0605]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	--
MW-6	1/28/2022	124.0	62.5	104	**290.5**	0.527	0.172	<0.0500	<0.100	0.385	0.252	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--

Table 4. Groundwater Analytical Results – Semivolatile Organic Compounds
Former ARCO Service Station 5544
19918 68th Avenue South,
Kent, Washington

Sample ID	Date	PAHs											cPAHs								
		Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Napthalenes	Aceanphthene	Acenaphthylene	Anthracene	Fluoranthene	Fluorene	Pheanthrene	Pyrene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Indeno(1,2,3-cd)Pyrene	Benzo(g,h,i) perylene	Total cPAHs
MTCA Method A CULs		**160**	**--**	**--**	**160**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**0.1**	**--**	**--**	**--**	**--**	**--**	**--**	**0.1**
MW-9	6/5/2015	<0.030	<0.010	<0.010	<0.030	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-9	12/15/2015	<0.030	<0.010	<0.010	<0.030	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-9	3/25/2016	--	--	--	--	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-9	6/7/2016	<0.032	<0.011	<0.011	<0.032	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	9/19/2016	--	--	--	--	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-9	5/3/2021	<0.250	<0.250	<0.250	<0.250	<0.0500	<0.0500	<0.0500	<0.100	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-10	6/5/2015	0.87	0.13	0.14	1.14	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	0.013 J	0.011 J	--	0.00895
MW-10	12/15/2015	<0.030	<0.010	<0.010	<0.030	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-10	3/25/2016	--	--	--	--	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-10	6/7/2016	<0.032	<0.011	<0.011	<0.032	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	9/19/2016	--	--	--	--	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-10	5/4/2021	<0.250	<0.250	<0.250	<0.250	<0.0500	<0.0500	<0.0500	0.125	<0.0500	0.0666	0.0920	0.0512	0.0496 J	0.0648	0.0247 J	0.0486 J	<0.0500	0.0296 J	0.0318 J	0.069616
MW-11	6/5/2015	<0.031	<0.010	<0.010	<0.031	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-11	12/15/2015	<0.030	<0.010	<0.010	<0.030	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-11	3/25/2016	--	--	--	--	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-11	6/7/2016	<0.031	<0.010	<0.010	<0.031	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	9/19/2016	--	--	--	--	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-11	1/19/2022	<0.250	<0.250	<0.250	<0.250	<0.0500	<0.0500	<0.0500	<0.100	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-12	6/5/2015	12	1.8	0.082	13.882	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-12	12/15/2015	9.1	0.13	0.084	9.314	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-12	3/25/2016	--	--	--	--	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-12	6/7/2016	19	1.1	0.85	20.950	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	9/19/2016	--	--	--	--	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-12	5/3/2021	17.8	1.29	0.129 J	19.219	0.0211 J	<0.0500	0.0440 J	<0.100	<0.0500	<0.0500	<0.0550	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-12	1/19/2021	14.5	0.814	<0.250	15.314	<0.0500	<0.0500	<0.0500	<0.100	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-12	5/23/2022	25.3	1.51	<0.250	26.81	<0.0500	<0.0500	<0.0500	<0.100	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-12	8/11/2022	76.3	3.38	2.54	82.22	<0.0500	<0.0500	<0.0500	<0.100	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-12	11/9/2022	83.3	2.68	1.83	87.81	<0.0500	<0.0500	<0.0500	<0.100	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-13	6/5/2015	**190**	28	29	**247**	--	--	--	--	--	--	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	--	--
MW-13	12/15/2015	43	11	5.2	59.2	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-13	3/25/2016	--	--	--	--	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--
MW-13	6/7/2016	130	25	21	**176**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	9/19/2016	--	--	--	--	--	--	--	--	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--

Table 4. Groundwater Analytical Results – Semivolatile Organic Compounds
Former ARCO Service Station 5544
19918 68th Avenue South,
Kent, Washington

Sample ID	Date	PAHs											cPAHs								
		Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Napthalenes	Aceanphthene	Acenaphthylene	Anthracene	Fluoranthene	Fluorene	Pheanthrene	Pyrene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Indeno(1,2,3-cd)Pyrene	Benzo(g,h,i) perylene	Total cPAHs
MTCA Method A CULs		**160**	**--**	**--**	**160**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**0.1**	**--**	**--**	**--**	**--**	**--**	**--**	**0.1**
MW-13	5/4/2021	31.5	26.9	3.94	62.34	0.327	0.0644	0.0947	<0.100	0.177	0.0603	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-13	1/19/2022	53.2	22.1	10.5	85.8	0.155	<0.0500	<0.0500	<0.100	0.0708	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-14	1/28/2022	<0.250	<0.250	<0.250	<0.250	<0.0500	<0.0500	<0.0500	<0.100	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-14	8/11/2022	<0.250	<0.250	<0.250	<0.250	<0.0500	<0.0500	<0.0500	<0.100	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-15	1/19/2022	<0.250	<0.250	<0.250	<0.250	<0.0500	<0.0500	<0.0500	<0.100	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-15	8/11/2022	<0.250	<0.250	<0.250	<0.250	<0.0500	<0.0500	<0.0500	<0.100	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500 J4	<0.0500	--
MW-16	1/19/2022	<0.250	<0.250	<0.250	<0.250	<0.0500	<0.0500	<0.0500	<0.100	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-16	5/23/2022	7.75	0.684	0.415	8.849	<0.0500	<0.0500	<0.0500	<0.100	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-16	8/11/2022	5.56	1.11	0.555	7.225	<0.0500	<0.0500	<0.0500	<0.100	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500 J4	<0.0500	--
MW-16	11/9/2022	0.509	<0.250	<0.250	0.509	<0.0500	<0.0500	<0.0500	<0.100	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-17	1/28/2022	<0.250	<0.250	<0.250	<0.250	<0.0500	<0.0500	<0.0500	<0.100	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-17	5/23/2022	<0.250	<0.250	<0.250	<0.250	<0.0500	<0.0500	<0.0500	<0.100	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--
MW-17	8/11/2022	<0.250	<0.250	<0.250	<0.250	<0.0500	<0.0500	<0.0500	<0.100	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500 J4	<0.0500	--
MW-17	11/9/2022	<0.250	<0.250	<0.250	<0.250	<0.0500	<0.0500	<0.0500	<0.100	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--

Notes:
1. All results in micrograms per liter (µg/L).
2. **BOLD and highlighted** values are greater than their respective MTCA Method A cleanup level.

Abbreviations and Acronyms:
-- = not applicable, not available, or not analyzed
< = analyte not detected at or greater than the laboratory detection limit
[ ] = duplicate sample result
CUL = cleanup level
MTCA = Model Toxics Control Act
TOC = top of casing in feet NAVD 88
USEPA = United States Environmental Protection Agency

Analytical Methods:
Semivolatile organic compounds analyzed by USEPA Method 8270E-SIM.

Laboratory Qualifiers:
J = laboratory estimated value
J4 = The associated batch QC was outside the established quality control range for accuracy.

Table 5. Soil Vapor Analytical Results
Former ARCO Service Station 5544
19918 68th Avenue South,
Kent, Washington

Sampling Location	Date	Depth	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	APH EC5-8 (aliphatics)	APH EC9-12 (aliphatics)	APH EC9-10 (aromatics)	Total Petroleum Hydrocarbons	Helium (%)
Method B Soil Gas Screening Levels			**11**	**76,000**	**15,000**	**1,500**	**2.5**	**--**	**--**	**--**	**1,500**	**--**
SAIC- Soil Vapor Assessment Summary Report, September 2013												
SVP-1	11/21/2023	3.5	<1.5 [<1.4]	<35 [<33]	2.4 [2.1]	12.7 [10.9]	<1.2 [<1.2]	<350 [<330]	<120 [<110]	<120 [<110]	<295 [<275]	<0.6
SVP-1	5/22/2024	3.5	<1.6 [<1.6]	<37 [<37]	11 [<2.1]	84 [<6.4]	1.4 [<1.3]	380 [<370]	120 [150]	<120 [<120]	560 [395]	<0.6
SVP-2	11/21/2023	3.5	<1.4	<34	<2	<5.9	<1.2	<340	<110	<110	<280	<0.6
SVP-2	5/22/2024	3.5	<1.6	<37	<2.1	<6.4	<1.3	<370	<120	<120	<305	<0.6

Notes:

1. Sample depth reported in feet below ground surface
2. Fixed gas results presented in percentages
3. Analytical concentrations are in micrograms per cubic meter (µg/m3)
4. Total Petroleum Hydrocarbons = The sum of EC5-8 aliphatics, EC9-12 aliphatics, and EC9-10 aromatics is compared to the Generic Sub-Slab Soil Gas Screening Level provided in Guidance for Evaluating Vapor Intrusion in Washington State (Washington State Department of Ecology [Ecology] 2022). When a fraction is reported as nondetect, a value of one-half the detection limit is assumed for the purpose of comparing the sum to the screening level.

Abbreviations and Acronyms:

-- = Not measured or not sampled
< = not detected at or greater than the laboratory reporting limit
ASTM = ASTM International
BTEX = benzene, toluene, ethylbenzene, total xylenes
MTCA = Model Toxics Control Act
USEPA = United States Environmental Protection Agency

Analytical Methods:

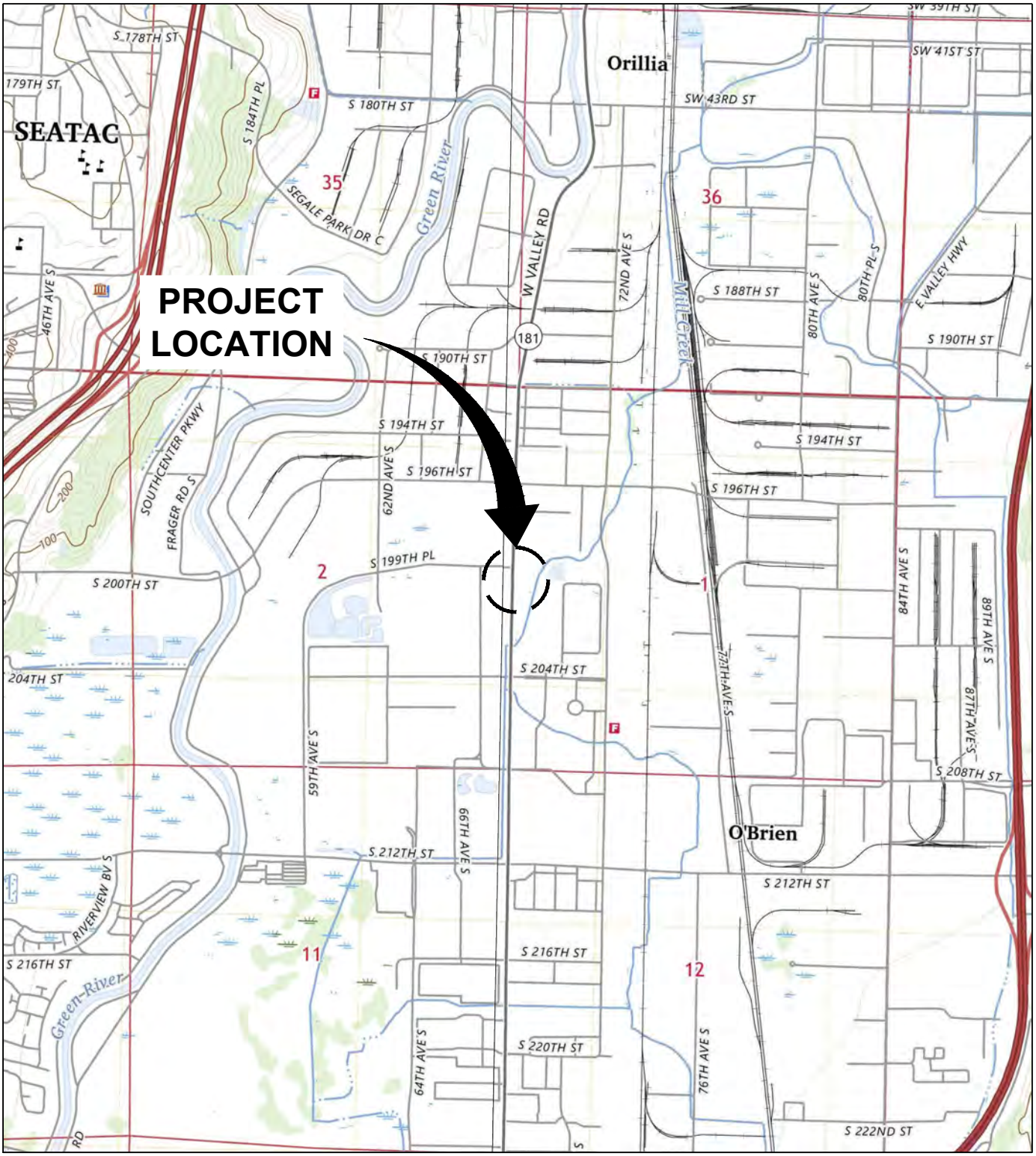
APH EC5-8 (aliphatics), APH EC9-12 (aliphatics), and APH EC9-10 (aromatics) analyzed by Massachusetts Air-Phase Petroleum Hydrocarbons

BTEX and naphthalene analyzed by USEPA Method TO-15 modified low-level.
Helium Analyzed by ASTM D-1946

Reference:

Ecology. 2022. Guidance for Evaluating Vapor Intrusion in Washington State: Investigation and Remedial Action. Washington State Department of Ecology Toxics Cleanup Program, Publication No, 09-09-047. March.

Figures



REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. QUAD., DES MOINES AND RENTON, WASHINGTON, 2023.

0 2,000' 4,000'

GRAPHIC SCALE

REMEDIATION MANAGEMENT SERVICES COMPANY
FORMER ARCO SERVICE STATION 5544
19918 68TH AVENUE SOUTH
KENT, WASHINGTON

SITE LOCATION MAP

ARCADIS

FIGURE 1

LEGEND:

APPROXIMATE PROPERTY BOUNDARY

3829000008 PARCEL NUMBER

NOTE:

1. ADJACENT PROPERTIES ARE ALL COMMERCIAL/INDUSTRIAL.

0 150' 300'

GRAPHIC SCALE

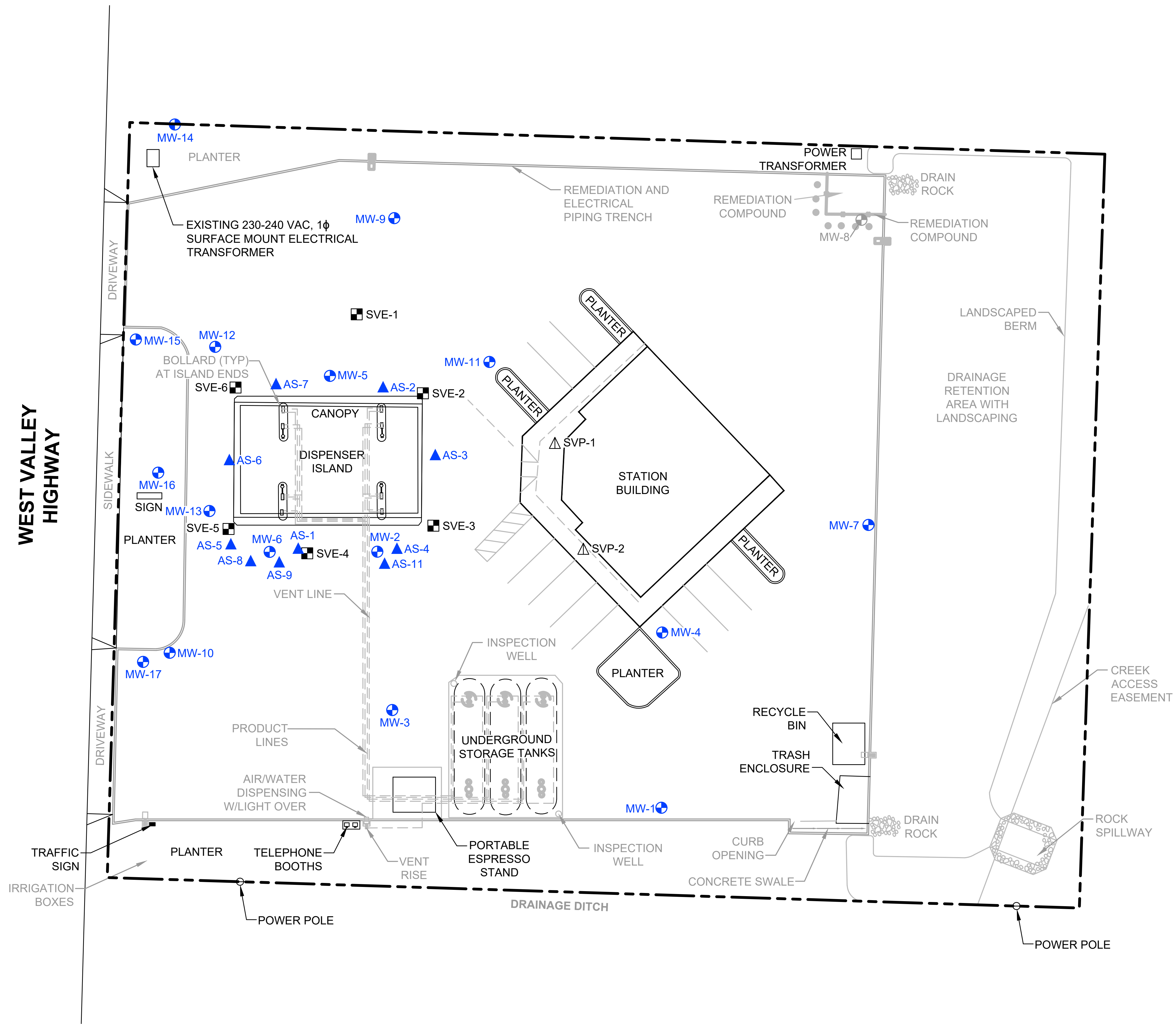
SOURCE: IMAGE IS TAKEN FROM © 2025 GOOGLE IMAGE © (2025) AIRBUS.

REMEDIATION MANAGEMENT SERVICES COMPANY
FORMER ARCO SERVICE STATION 5544
19918 68TH AVENUE SOUTH
KENT, WASHINGTON

SITE VICINITY MAP

ARCADIS

FIGURE
2



LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- PIPING TRENCH
- MONITORING WELL
- ABANDONED MONITORING WELL
- REMEDIAL/VAPOR EXTRACTION WELL
- AIR SPARGE WELL
- SOIL VAPOR PROBE

NOTE:

1. ALL FEATURES ARE REFERENCED FROM STANTEC 2ND QUARTER 2024 SOIL VAPOR MONITORING.
2. SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

0 30' 60'

GRAPHIC SCALE

REMEDIATION MANAGEMENT SERVICES COMPANY
FORMER ARCO SERVICE STATION 5544
19918 68TH AVENUE SOUTH
KENT, WASHINGTON

SITE PLAN

ARCADIS

FIGURE **3**

C:\Users\byrappab8346\DC\ACCDocs\Arcadis ACC US\AUS-99999999-BP_19918_KENT_WA\Project Files\10_WIP\10T_ARC_ENV\2026\01-DWG\GEN-F03-SITE MAP.dwg LAYOUT: 3 SAVED: 2/6/2026 10:33 AM ACADVER: 24.3S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 2/6/2026 3:26 PM BY: BYRAPPA, BYRAREDDY
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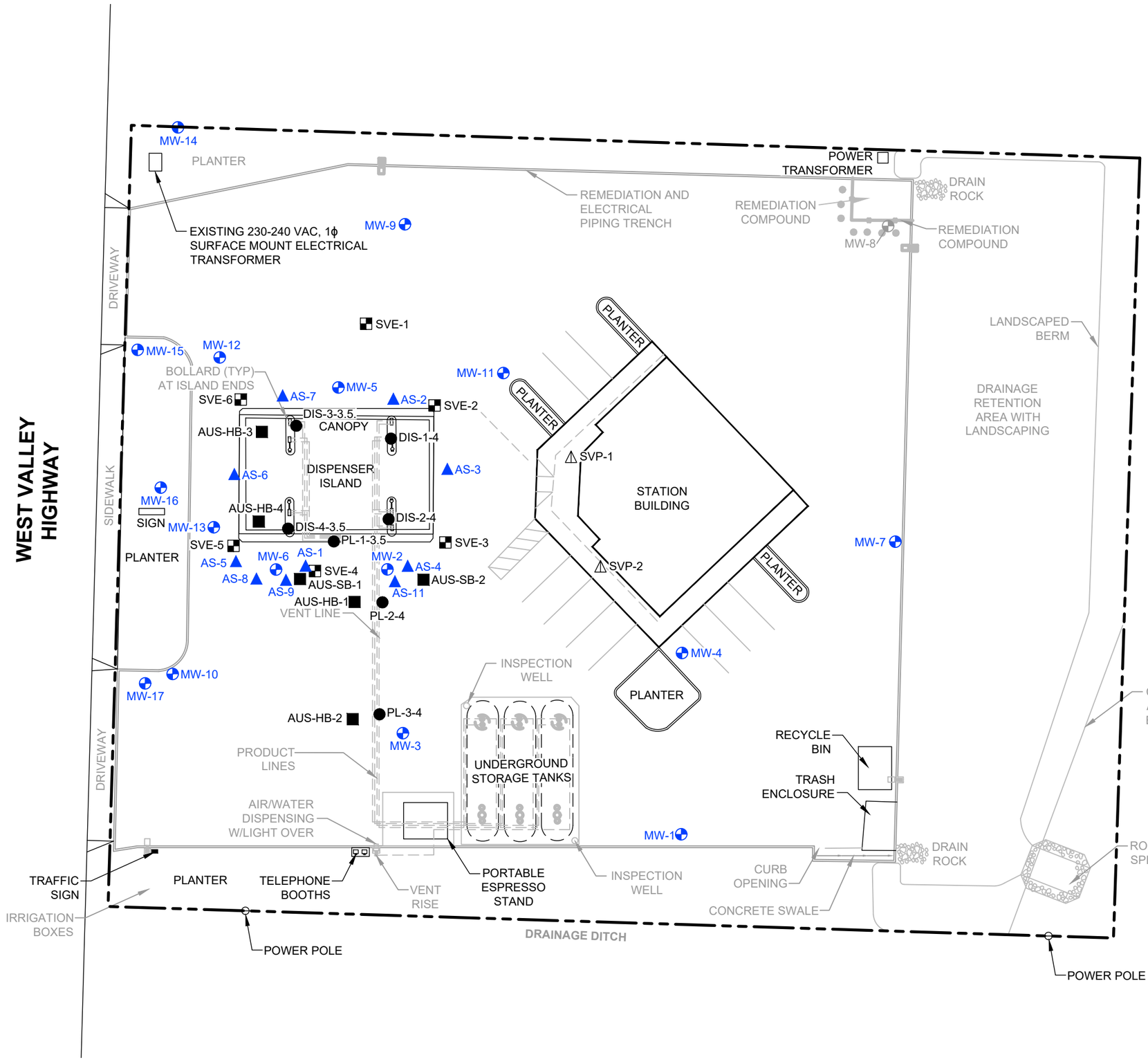
WEST VALLEY HIGHWAY



LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- PIPING TRENCH
- MONITORING WELL
- ABANDONED MONITORING WELL
- REMEDIAL/VAPOR EXTRACTION WELL
- AIR SPARGE WELL
- SOIL VAPOR PROBE
- DISCRETE SOIL SAMPLE
- SOIL SAMPLE

NOTE:

1. ALL FEATURES ARE REFERENCED FROM STANTEC 2ND QUARTER 2024 SOIL VAPOR MONITORING.
2. SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

0 30' 60'

GRAPHIC SCALE

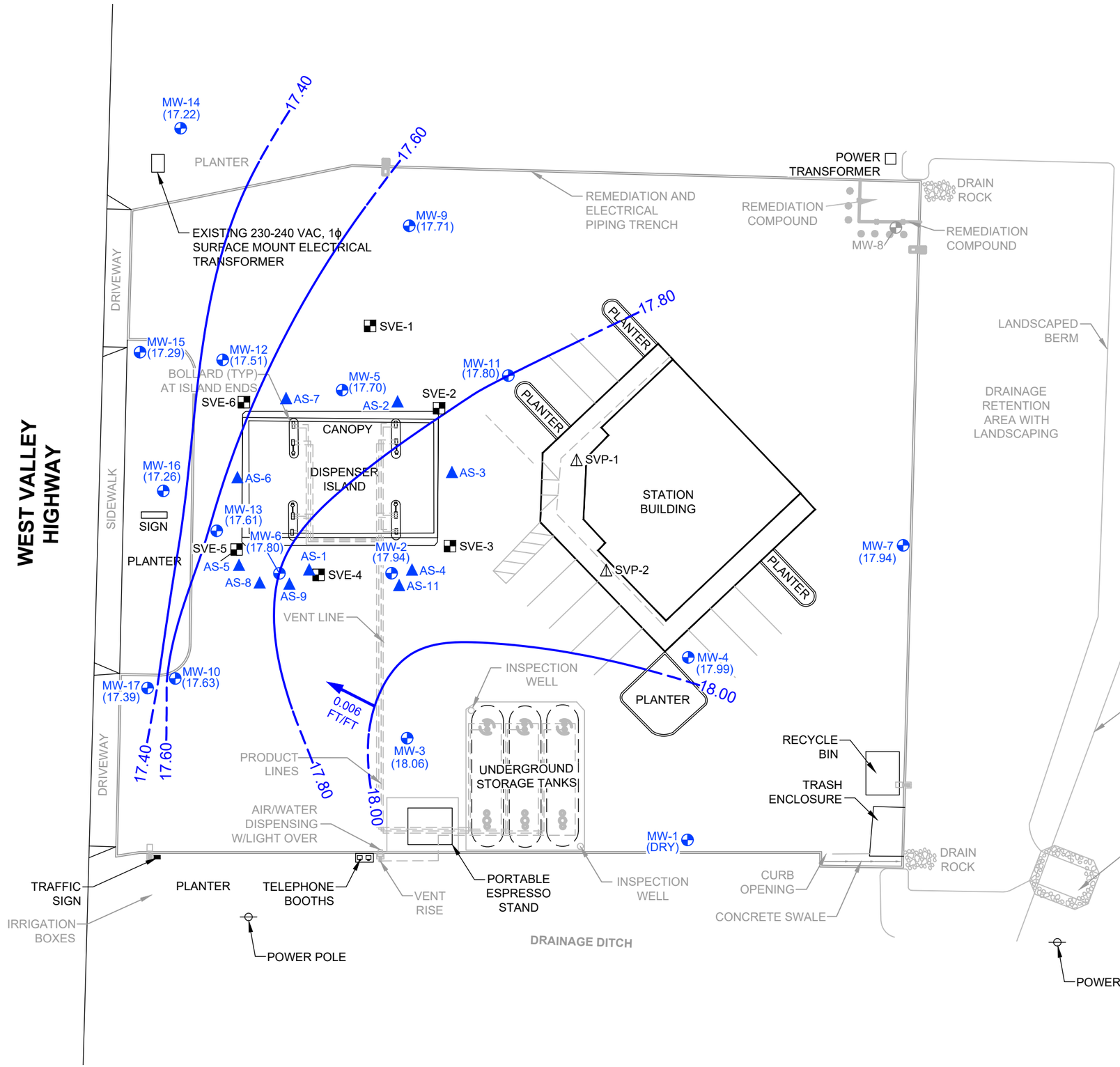
REMEDIATION MANAGEMENT SERVICES COMPANY
FORMER ARCO SERVICE STATION 5544
19918 68TH AVENUE SOUTH
KENT, WASHINGTON

SOIL SAMPLE LOCATION MAP

ARCADIS

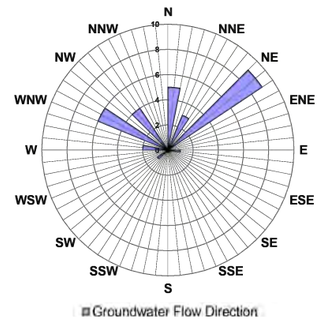
FIGURE 4

WEST VALLEY HIGHWAY



LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- PIPING TRENCH
- MONITORING WELL
- ABANDONED MONITORING WELL
- REMEDIAL/VAPOR EXTRACTION WELL
- AIR SPARGE WELL
- SOIL VAPOR PROBE
- (18.06) GROUNDWATER ELEVATION (NORTH AMERICAN VERTICAL DATUM 1988 -NAVD88)
- 18.00 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- 0.006 FT/FT GROUNDWATER FLOW DIRECTION AND GRADIENT (FOOT/FOOT)
- (DRY) WELL IS DRY



NOTES:

1. ALL FEATURES ARE REFERENCED FROM STANTEC 2ND QUARTER 2024 SOIL VAPOR MONITORING.
2. SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

0 30' 60'

GRAPHIC SCALE

REMEDIATION MANAGEMENT SERVICES COMPANY
FORMER ARCO SERVICE STATION 5544
19918 68TH AVENUE SOUTH
KENT, WASHINGTON

GROUNDWATER ELEVATION CONTOUR MAP JUNE 20, 2025

ARCADIS

FIGURE 5

MW-14	
Sample Date	6/20/2025
TPH-GRO	<100 [<100]
TPH-DRO	<200 [<200]
TPH-DRO w SGC	-- [--]
TPH-HRO	<250 [<250]
TPH-HRO w SGC	-- [--]
Benzene	<1.00 [<1.00]
Toluene	<1.00 [<1.00]
Ethylbenzene	<1.00 [<1.00]
Total Xylenes	<3.00 [<3.00]
EDB	<1.00 [<1.00]
EDC	**<0.0200 [<0.0200]**
MTBE	<1.00 [<1.00]
Total Lead	<2.00 [<2.00]

MW-9	
Sample Date	6/20/2025
TPH-GRO	<100
TPH-DRO	<200
TPH-DRO w SGC	--
TPH-HRO	<250
TPH-HRO w SGC	--
Benzene	<1.00
Toluene	<1.00
Ethylbenzene	<1.00
Total Xylenes	<3.00
EDB	<1.00
EDC	**<0.0200**
MTBE	<1.00
Total Lead	<2.00

MW-11	
Sample Date	6/20/2025
TPH-GRO	<100
TPH-DRO	<200
TPH-DRO w SGC	--
TPH-HRO	<250
TPH-HRO w SGC	--
Benzene	<1.00
Toluene	<1.00
Ethylbenzene	<1.00
Total Xylenes	<3.00
EDB	<1.00
EDC	**<0.0200**
MTBE	<1.00
Total Lead	<2.00

MW-5	
Sample Date	6/20/2025
TPH-GRO	<100
TPH-DRO	<200
TPH-DRO w SGC	--
TPH-HRO	<250
TPH-HRO w SGC	--
Benzene	<1.00
Toluene	<1.00
Ethylbenzene	<1.00
Total Xylenes	<3.00
EDB	<1.00
EDC	**<0.0200**
MTBE	<1.00
Total Lead	<2.00

MW-12	
Sample Date	6/20/2025
TPH-GRO	688 B
TPH-DRO	**627**
TPH-DRO w SGC	<200
TPH-HRO	<250
TPH-HRO w SGC	<250
Benzene	<1.00
Toluene	<1.00
Ethylbenzene	1.23
Total Xylenes	<3.00
EDB	<1.00
EDC	**<0.0202**
MTBE	<1.00
Total Lead	<2.00

MW-10	
Sample Date	6/20/2025
TPH-GRO	<500
TPH-DRO	<200
TPH-DRO w SGC	--
TPH-HRO	<250
TPH-HRO w SGC	--
Benzene	<1.00
Toluene	<1.00
Ethylbenzene	<1.00
Total Xylenes	<3.00
EDB	<1.00
EDC	**<0.0200**
MTBE	<1.00
Total Lead	<2.00

MW-13	
Sample Date	6/20/2025
TPH-GRO	**2,630**
TPH-DRO	**1,090**
TPH-DRO w SGC	<200
TPH-HRO	<250
TPH-HRO w SGC	<250
Benzene	<1.00
Toluene	<1.00
Ethylbenzene	3.83
Total Xylenes	28.6
EDB	<1.00
EDC	**<0.0200**
MTBE	<1.00
Total Lead	<2.00

MW-6	
Sample Date	6/20/2025
TPH-GRO	**3,330 B**
TPH-DRO	**1,540**
TPH-DRO w SGC	324
TPH-HRO	407
TPH-HRO w SGC	<250
Benzene	1.17
Toluene	<1.00
Ethylbenzene	9.98
Total Xylenes	15.2
EDB	<1.00
EDC	**<0.0228**
MTBE	<1.00
Total Lead	<2.00

MW-2	
Sample Date	6/20/2025
TPH-GRO	**1,460 B**
TPH-DRO	**929**
TPH-DRO w SGC	<200
TPH-HRO	<250
TPH-HRO w SGC	<250
Benzene	<1.00
Toluene	<1.00
Ethylbenzene	29.6
Total Xylenes	3.64
EDB	<1.00
EDC	**<0.0200**
MTBE	<1.00
Total Lead	<2.00

MW-14
PLANTER
EXISTING 230-240 VAC, 1ϕ SURFACE MOUNT ELECTRICAL TRANSFORMER
MW-9
POWER TRANSFORMER
REMEDIATION AND ELECTRICAL PIPING TRENCH
REMEDIATION COMPOUND
MW-8
DRAIN ROCK
REMEDIATION COMPOUND
DRIVEWAY
MW-15 (NS)
MW-12
BOLLARD (TYP) AT ISLAND ENDS
MW-5
CANOPY
DISPENSER ISLAND
MW-16 (NS)
SIDEWALK
SIGN
MW-13
PLANTER
MW-6
MW-2
VENT LINE
MW-10
MW-17 (NS)
INSPECTION WELL
MW-3 (NS)
PRODUCT LINES
UNDERGROUND STORAGE TANKS
AIR/WATER DISPENSING
MW-11
PLANTER
PLANTER
STATION BUILDING
PLANTER
MW-7 (NS)
MW-4 (NS)
PLANTER
RECYCLE BIN
TRASH ENCLOSURE
MW-1 (NS)
INSPECTION WELL
WEST VALLEY HIGHWAY
LANDS
DRAINA(RETENTI AREA WI LANDSCAF
IT
PLAI
GE DITCH

NOTES:

1. ALL FEATURES ARE REFERENCED FROM STANTEC 2ND QUARTER 2024 SOIL VAPOR MONITORING.
2. SITE FEATURES AND LOCATIONS ARE APPROXIMATE.
3. BOLD AND HIGHLIGHTED VALUES ARE GREATER THAN THEIR RESPECTIVE MTCA METHOD A CLEANUP LEVEL.
4. ALL RESULTS ARE IN MICROGRAMS PER LITER (µg/L).

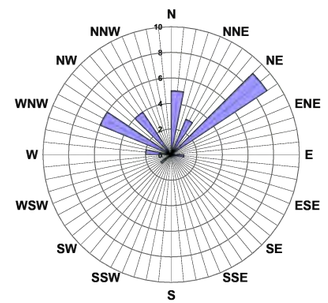
0 30' 60'
GRAPHIC SCALE

LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- PIPING TRENCH
- MONITORING WELL
- ABANDONED MONITORING WELL

ACRONYMS AND ABBREVIATIONS:

CULs	CLEANUP LEVELS
MTCA	MODEL TOXICS CONTROL ACT
--	NOT ANALYZED
BOLD	NON-DETECT CONCENTRATION DETECTED GREATER THAN THE MTCA METHOD A CUL
BOLD	CONCENTRATION DETECTED GREATER THAN THE MTCA METHOD A CUL
TPH-GRO	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE-RANGE ORGANICS
TPH-DRO	TOTAL PETROLEUM HYDROCARBONS AS DIESEL-RANGE ORGANICS
TPH-DRO w SGC	TOTAL PETROLEUM HYDROCARBONS AS DIESEL-RANGE ORGANICS WITH SILICA GEL CLEANUP
TPH-HRO	TOTAL PETROLEUM HYDROCARBONS AS HEAVY-OIL-RANGE ORGANICS
TPH-HRO w SGC	TOTAL PETROLEUM HYDROCARBONS AS HEAVY-OIL-RANGE ORGANICS WITH SILICA GEL CLEANUP
EDB	1,2-DIBROMOETHANE
EDC	1,2-DICHLOROETHANE
MTBE	METHYL TERT-BUTYL ETHER
B	THE SAME ANALYTE IS FOUND IN THE ASSOCIATED BLANK
<	NOT DETECTED AT OR GREATER THAN THE LABORATORY METHOD DETECTION LIMIT
[ ]	DUPLICATE SAMPLE RESULTS
µg/L	MICROGRAMS PER LITER
(NS)	NOT SAMPLED

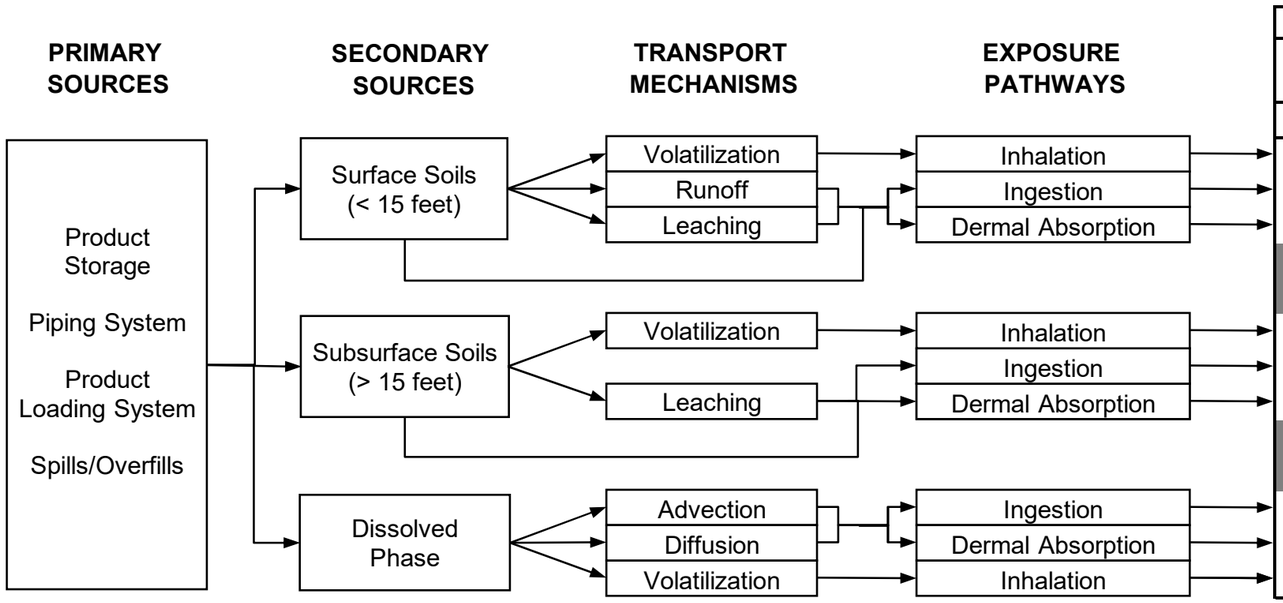


REMEDIATION MANAGEMENT SERVICES COMPANY
FORMER ARCO SERVICE STATION 5544
19918 68TH AVENUE SOUTH
KENT, WASHINGTON

GROUNDWATER ANALYTICAL RESULTS MAP JUNE 20, 2025

ARCADIS

FIGURE 6



POTENTIAL RECEPTORS							
Residential/ Children		Recreational Users		Commercial Workers		Construction Workers	
Current	Future	Current	Future	Current	Future	Current	Future
-	-	-	-	I	I	-	I
-	-	-	-	-	I	-	I
-	-	-	-	-	I	-	I
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	P
-	-	-	-	-	-	-	P
-	-	-	-	-	-	-	P

NOTES:

- = THERE IS NO EXPOSURE BY THIS ROUTE

P = POTENTIAL SOURCE OF EXPOSURE

I = POTENTIAL BUT INSIGNIFICANT SOURCE OF EXPOSURE

REMEDIATION MANAGEMENT SERVICES COMPANY
FORMER ARCO SERVICE STATION 5544
19918 68TH AVENUE SOUTH
KENT, WASHINGTON
2026 REMEDIAL INVESTIGATION AND CLEANUP ACTION PLAN

CONCEPTUAL SITE MODEL
HUMAN EXPOSURE PATHWAYS

ARCADIS

FIGURE
7

WEST VALLEY HIGHWAY

MW-14
PLANTER
EXISTING 230-240 VAC, 1ϕ SURFACE MOUNT ELECTRICAL TRANSFORMER
MW-9
REMEDIATION AND ELECTRICAL PIPING TRENCH
POWER TRANSFORMER
REMEDIATION COMPOUND
DRAIN ROCK
MW-8
REMEDIATION COMPOUND
DRIVEWAY
SVE-1
MW-15
MW-12
BOLLARD (TYP) AT ISLAND ENDS
SVE-6
AS-7
MW-5
AS-2
SVE-2
MW-11
PLANTER
PLANTER
LANDSCAPED BERM
DRAINAGE RETENTION AREA WITH LANDSCAPING
DIS-3-3.5
CANOPY
AUS-HB-3
DIS-1-4
SVP-1
MW-16
AS-6
DISPENSER ISLAND
AS-3
STATION BUILDING
SIDEWALK
AUS-HB-4
DIS-4-3.5
DIS-2-4
SIGN
MW-13
SVE-5
PL-1-3.5
SVE-3
PLANTER
MW-6
AS-1
MW-2
AS-4
AS-5
SVE-4
AS-8
AUS-SB-1
AUS-SB-2
AS-9
AUS-HB-1
AS-11
VENT LINE
PL-2-4
SVP-2
PLANTER
MW-7
MW-4
PLANTER
INSPECTION WELL
MW-10
MW-17
AUS-HB-2
PL-3-4
MW-3
CREEK ACCESS EASEMENT
PRODUCT LINES
UNDERGROUND STORAGE TANKS
RECYCLE BIN
TRASH ENCLOSURE
AIR/WATER DISPENSING W/LIGHT OVER
MW-1
DRAIN ROCK
ROCK SPILLWAY
TRAFFIC SIGN
PLANTER
TELEPHONE BOOTHS
VENT RISE
PORTABLE ESPRESSO STAND
INSPECTION WELL
CURB OPENING
IRRIGATION BOXES
CONCRETE SWALE
DRAINAGE DITCH
POWER POLE
POWER POLE

LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- PIPING TRENCH
- MONITORING WELL
- ABANDONED MONITORING WELL
- REMEDIAL/VAPOR EXTRACTION WELL
- AIR SPARGE WELL
- SOIL VAPOR PROBE
- DISCRETE SOIL SAMPLE
- SOIL SAMPLE
- CONSTITUENTS ANALYZED DO NOT EXCEED MTCA METHOD A CULs
- ONE OR MORE CONSTITUENTS ANALYZED PREVIOUSLY EXCEEDED MTCA METHOD A OR METHOD B CULS; HOWEVER, CONSTITUENTS HAVE BEEN CONFIRMED LESS THAN CULS THROUGH CONFIRMATION SAMPLING
- ONE OR MORE CONSTITUENTS ANALYZED EXCEED THE APPLICABLE MTCA METHOD A CUL BUT DO NOT EXCEED THE APPLICABLE METHOD B OR THE GENERIC TPH CUL

NOTE:

1. ALL FEATURES ARE REFERENCED FROM STANTEC 2ND QUARTER 2024 SOIL VAPOR MONITORING.
2. SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

0 30' 60'
GRAPHIC SCALE

REMEDIATION MANAGEMENT SERVICES COMPANY
FORMER ARCO SERVICE STATION 5544
19918 68TH AVENUE SOUTH
KENT, WASHINGTON

SOIL STATUS MAP

ARCADIS

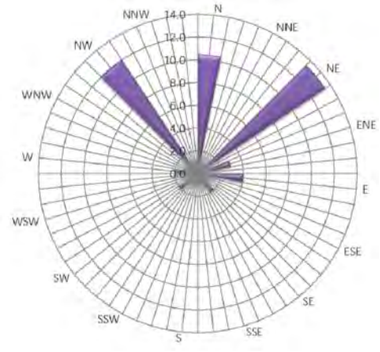
FIGURE 8

WEST VALLEY HIGHWAY

MW-14
PLANTER
EXISTING 230-240 VAC, 1ϕ SURFACE MOUNT ELECTRICAL TRANSFORMER
MW-9
REMEDIATION AND ELECTRICAL PIPING TRENCH
POWER TRANSFORMER
REMEDIATION COMPOUND
DRAIN ROCK
MW-8
REMEDIATION COMPOUND
DRIVEWAY
MW-15
MW-12
BOLLARD (TYP) AT ISLAND ENDS
MW-5
CANOPY
DISPENSER ISLAND
MW-16
SIDEWALK
SIGN
MW-13
PLANTER
MW-6
MW-2
VENT LINE
PLANTER
PLANTER
MW-11
PLANTER
STATION BUILDING
MW-7
MW-4
PLANTER
LANDSCAPED BERM
DRAINAGE RETENTION AREA WITH LANDSCAPING
MW-10
MW-17
INSPECTION WELL
MW-3
PRODUCT LINES
UNDERGROUND STORAGE TANKS
RECYCLE BIN
TRASH ENCLOSURE
AIR/WATER DISPENSING W/LIGHT OVER
MW-1
DRAIN ROCK
ROCK SPILLWAY
CREEK ACCESS EASEMENT
TRAFFIC SIGN
PLANTER
TELEPHONE BOOTHS
VENT RISE
PORTABLE ESPRESSO STAND
INSPECTION WELL
CURB OPENING
IRRIGATION BOXES
CONCRETE SWALE
POWER POLE
DRAINAGE DITCH
POWER POLE

LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- PIPING TRENCH
- MONITORING WELL
- ABANDONED MONITORING WELL
- CONSTITUENTS ANALYZED DO NOT EXCEED MTCA METHOD A CULs
- ONE OR MORE CONSTITUENTS ANALYZED EXCEED MTCA METHOD A CULs
- ONE OR MORE CONSTITUENTS PREVIOUSLY EXCEEDED MTCA METHOD CULs, BUT HAVE NOT EXCEEDED CULs FOR 4 OR MORE CONSECUTIVE SAMPLING QUARTERS



GROUNDWATER FLOW DIRECTION

NOTE:

1. ALL FEATURES ARE REFERENCED FROM STANTEC 2ND QUARTER 2024 SOIL VAPOR MONITORING.
2. SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

0 30' 60'
GRAPHIC SCALE

REMEDIATION MANAGEMENT SERVICES COMPANY
FORMER ARCO SERVICE STATION 5544
19918 68TH AVENUE SOUTH
KENT, WASHINGTON

GROUNDWATER STATUS MAP

ARCADIS

FIGURE 9

WEST VALLEY HIGHWAY

MW-14
PLANTER
EXISTING 230-240 VAC, 1ϕ SURFACE MOUNT ELECTRICAL TRANSFORMER
MW-9
REMEDIATION AND ELECTRICAL PIPING TRENCH
POWER TRANSFORMER
REMEDIATION COMPOUND
DRAIN ROCK
MW-8
REMEDIATION COMPOUND
DRIVEWAY
SVE-1
MW-15
MW-12
BOLLARD (TYP) AT ISLAND ENDS
MW-11
PLANTER
PLANTER
LANDSCAPED BERM
MW-5
SVE-6
AS-7
AS-2
SVE-2
DRAINAGE RETENTION AREA WITH LANDSCAPING
DIS-3-3.5 CANOPY
AUS-HB-3
DIS-1-4
SVP-1
AS-6
DISPENSER ISLAND
AS-3
STATION BUILDING
MW-16
SIGN
AUS-HB-4
MW-13
DIS-4-3.5
DIS-2-4
PL-1-3.5
SVE-3
MW-7
SVE-5
AS-5
MW-6
AS-1
MW-2
AS-4
PLANTER
SVP-2
PLANTER
AS-8
SVE-4
AUS-SB-1
AUS-SB-2
AS-9
AUS-HB-1
AS-11
VENT LINE
PL-2-4
A
A'
MW-4
INSPECTION WELL
MW-10
MW-17
PLANTER
CREEK ACCESS EASEMENT
AUS-HB-2
PL-3-4
MW-3
RECYCLE BIN
PRODUCT LINES
UNDERGROUND STORAGE TANKS
TRASH ENCLOSURE
AIR/WATER DISPENSING W/LIGHT OVER
MW-1
DRAIN ROCK
ROCK SPILLWAY
TRAFFIC SIGN
PLANTER
TELEPHONE BOOTHS
VENT RISE
PORTABLE ESPRESSO STAND
INSPECTION WELL
CURB OPENING
IRRIGATION BOXES
CONCRETE SWALE
DRAINAGE DITCH
POWER POLE
POWER POLE
SIDEWALK

LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- MONITORING WELL
- ABANDONED MONITORING WELL
- SOIL VAPOR EXTRACTION POINT
- AIR SPARGE WELL
- SOIL VAPOR PROBE LOCATION
- DISCRETE SOIL SAMPLE LOCATION
- SOIL SAMPLE
- CONSTITUENTS ANALYZED DO NOT EXCEED MTCA METHOD A CULs
- ONE OR MORE CONSTITUENTS ANALYZED PREVIOUSLY EXCEEDED MTCA METHOD A OR METHOD B CULS; HOWEVER, CONSTITUENTS HAVE BEEN CONFIRMED LESS THAN CULS THROUGH CONFIRMATION SAMPLING
- ONE OR MORE CONSTITUENTS ANALYZED EXCEED THE APPLICABLE MTCA METHOD A CUL BUT DO NOT EXCEED THE APPLICABLE METHOD B OR THE GENERIC TPH CUL
- A —— A' CROSS-SECTION TRANSECT

NOTES:

1. ALL FEATURES ARE REFERENCED FROM STANTEC 2ND QUARTER 2024 SOIL VAPOR MONITORING.
2. SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

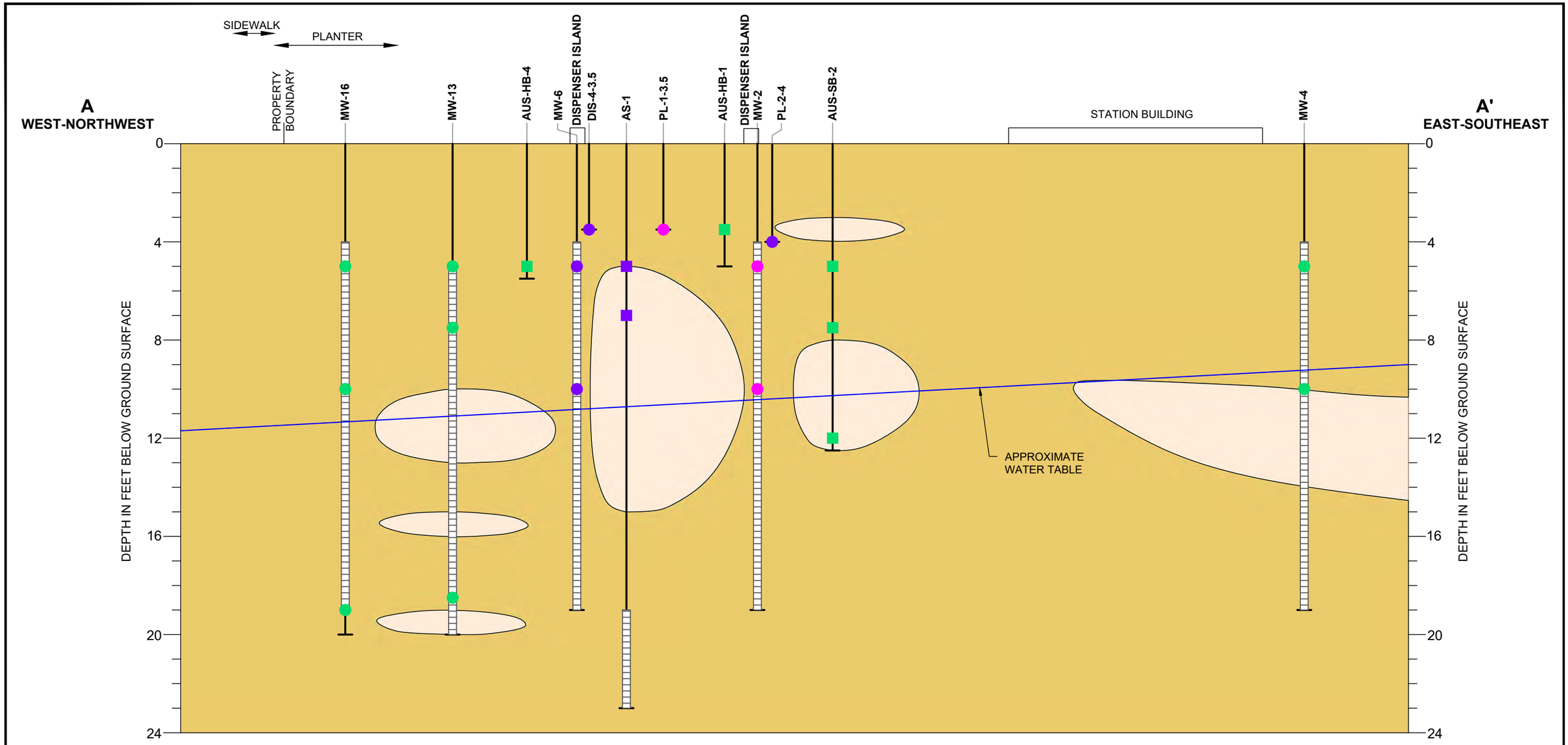
0 30' 60'
GRAPHIC SCALE

REMEDIATION MANAGEMENT SERVICES COMPANY
FORMER ARCO SERVICE STATION 5544
19918 68TH AVENUE SOUTH
KENT, WASHINGTON

CROSS-SECTION LOCATION MAP

ARCADIS

FIGURE 10



LEGEND:

MW-6 / DIS-4-3.5

- BORING IDENTIFICATION
- GROUND SURFACE
- DISCRETE SOIL SAMPLE LOCATION
- SOIL SAMPLE LOCATION
- WELL SCREEN INTERVAL
- END OF BORING

- CONSTITUENTS ANALYZED DO NOT EXCEED MTCA METHOD A CULs.
- ONE OR MORE CONSTITUENTS ANALYZED PREVIOUSLY EXCEEDED MTCA METHOD A OR METHOD B CULS; HOWEVER, CONSTITUENTS HAVE BEEN CONFIRMED LESS THAN CULS THROUGH CONFIRMATION SAMPLING
- ONE OR MORE CONSTITUENTS ANALYZED EXCEED THE APPLICABLE MTCA METHOD A CUL BUT DO NOT EXCEED THE APPLICABLE METHOD B OR THE GENERIC TPH CUL

- FINE GRAINED SOILS
- COARSE GRAINED SOILS

ACRONYMS:

MTCA = MODEL TOXICS CONTROL ACT

CUL = CLEANUP LEVEL

0 16' 32'
HORIZONTAL SCALE

0 4' 8'
VERTICAL SCALE

VERTICAL EXAGGERATION x4

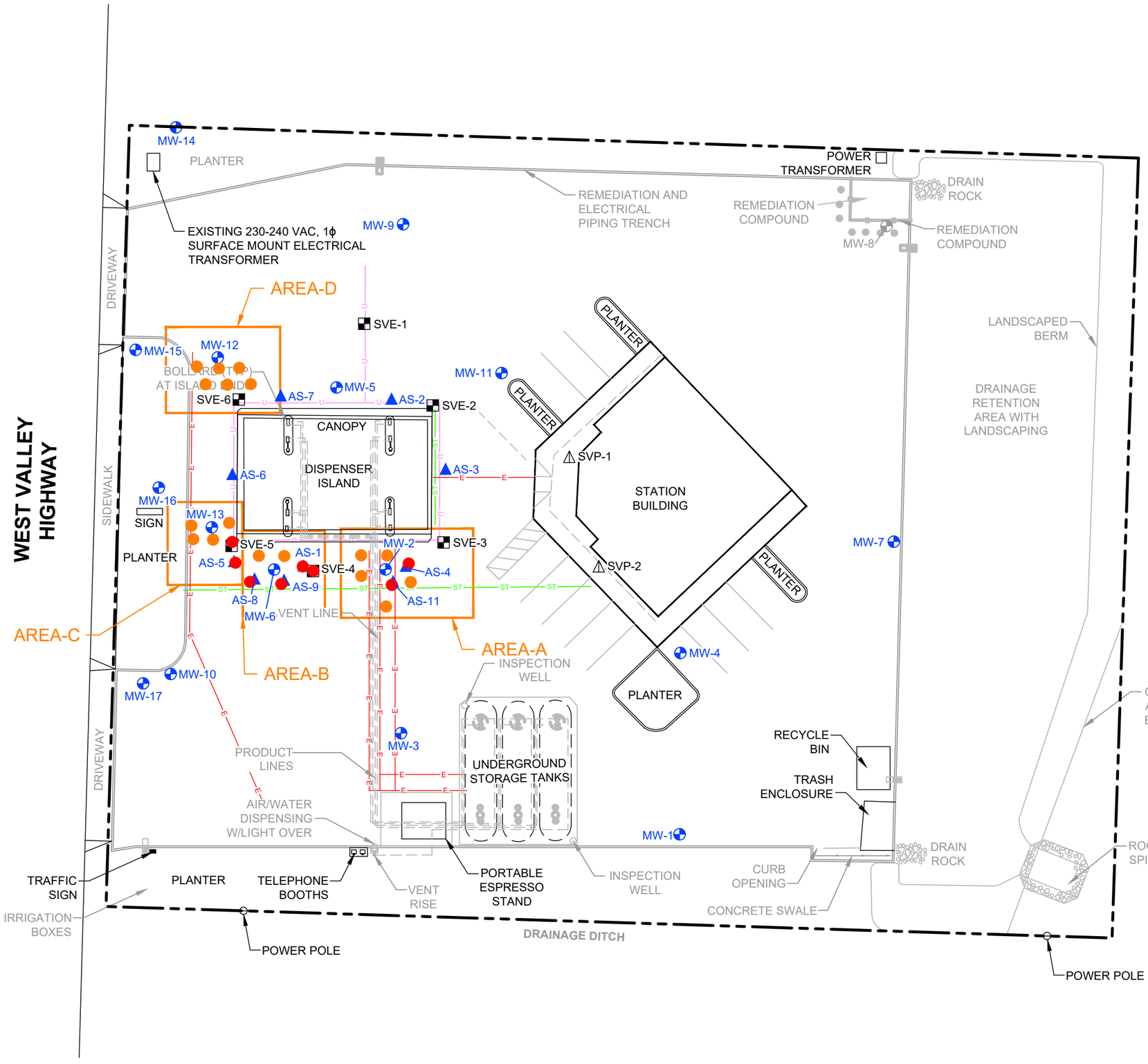
REMEDIATION MANAGEMENT SERVICES COMPANY
FORMER ARCO SERVICE STATION 5544
19918 68TH AVENUE SOUTH
KENT, WASHINGTON

CROSS-SECTION A-A'

ARCADIS

FIGURE
11

WEST VALLEY HIGHWAY



LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- PIPING TRENCH
- ELECTRICAL LINE
- STORM LINE
- UNKNOW LINE
- MONITORING WELL
- ABANDONED MONITORING WELL
- REMEDIAL/VAPOR EXTRACTION WELL
- AIR SPARGE WELL
- SOIL VAPOR PROBE
- PROPOSED WELL ABANDONMENT COMPLETED AS A PERMEABLE FILLED BORING
- PROPOSED PERMEABLE FILLED BORING

Study Area	Location ID
A	PFB-A1 through PFB-A7
B	PFB-B1 and PFB-B6
C	PFB-C1 through PFB-C6
D	PFB-D1 through PFB-D6

NOTE:

1. ALL FEATURES ARE REFERENCED FROM STANTEC 2ND QUARTER 2024 SOIL VAPOR MONITORING.
2. SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

0 30' 60'

GRAPHIC SCALE

REMEDIATION MANAGEMENT SERVICES COMPANY
FORMER ARCO SERVICE STATION 5544
19918 68TH AVENUE SOUTH
KENT, WASHINGTON

CLEANUP ACTION PLAN

ARCADIS

FIGURE
12A

MW-15
MW-12
PFB-D1
PFB-D2
PFB-D3
PFB-D4
PFB-D5
PFB-D6
AREA-D
SVE-1
MW-5
MW-11
SVE-6
AS-7
AS-2
SVE-2
BOLLARD (TYP)
AT ISLAND ENDS
CANOPY
DISPENSER
ISLAND
AS-6
AS-3
MW-16
SIDEWALK
SIGN
PLANTER
PFB-C1
PFB-C2
MW-13
PFB-C3
PFB-C4
PFB-C5
SVE-5
PFB-C6
AS-5
AREA-C
PFB-B1
PFB-B2
PFB-B3
SVE-4
AS-1
PFB-B4
AS-8
MW-6
PFB-B6
AS-9
PFB-B5
AREA-B
SVE-3
PFB-A1
PFB-A2
PFB-A3
AS-4
PFB-A4
MW-2
PFB-A6
AS-11
PFB-A5
VENT LINE
AREA-A

LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- PIPING TRENCH
- E — ELECTRICAL LINE
- ST — STORM LINE
- U — UNKNOW LINE
- MONITORING WELL
- ABANDONED MONITORING WELL
- REMEDIAL/VAPOR EXTRACTION WELL
- AIR SPARGE WELL
- SOIL VAPOR PROBE
- PROPOSED WELL ABANDONMENT COMPLETED AS A PERMEABLE FILLED BORING
- PROPOSED PERMEABLE FILLED BORING

NOTE:

1. ALL FEATURES ARE REFERENCED FROM STANTEC 2ND QUARTER 2024 SOIL VAPOR MONITORING.
2. SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

0 30' 60'
GRAPHIC SCALE

REMEDIATION MANAGEMENT SERVICES COMPANY
FORMER ARCO SERVICE STATION 5544
19918 68TH AVENUE SOUTH
KENT, WASHINGTON

CLEANUP ACTION PLAN

ARCADIS

FIGURE
12B

Appendix A

Historical Boring Logs

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT

Notice of Intent No. AE19415

Construction/Decommission 471783

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Property Owner: **Arco BP**

Site Address: **19918 68th Ave S**

Consulting Firm: **Arcadis**

City: **Kent** County: **King**

Unique Ecology Well ID Tag No. AHQ 308

Location 1/4 **SW** 1/4 **NW** Sec **1** Twn **22N** R **4E** ☐ EWM ☐ WWM

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No. _____

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☒ Driller ☐ Trainee Name (Print) Jaymen Lauer

Driller/Trainee Signature x _____

Driller/Trainee License No. 2745

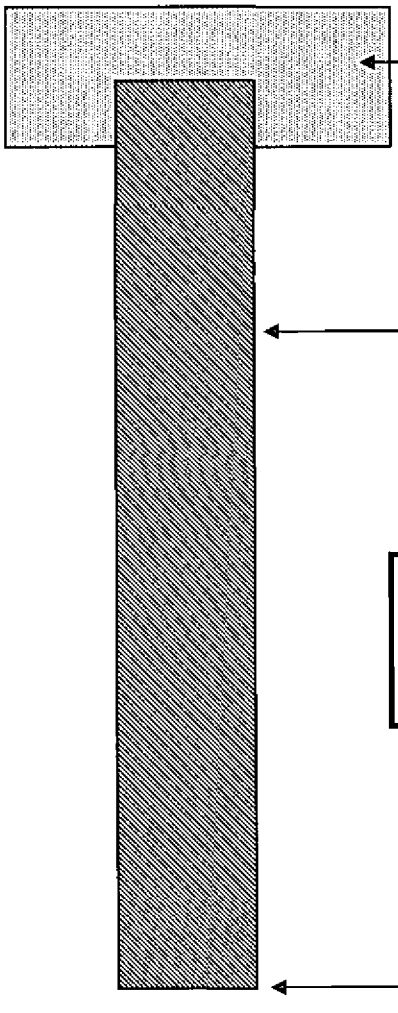
If trainee, licesned drillers' Signature and License No. _____

Cased or Uncased Diameter _____ Static Level _____

Work/Decommision Start Date 10-18-12

Work/Decommision Completed Date 10-18-12

Construction/Design — Well Data W12-650 — Formation Description



Well Data		Formation Description
CONCRETE SURFACE SEAL	1 FT	0 - 1 FT Concrete
BACKFILL	18 FT Bentonite chips	1 - 20 FT Bentonite chips
DEPTH OF BORING	19 FT	

REQUIRED INFORMATION

(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : AHQ-308

CLIENT WELL ID #: _____

RECEIVED

JAN 07 2013

DEPT OF ECOLOGY NWRO - WR

Scale 1" = _____ Page _____ of _____

ECY 050-12 (Rev 2/01)

LOG OF BORING MW-1

(Page 1 of 1)

Delta Environmental Consultants, Inc.

Former ARCO Facility No. 5544
19860 68th Avenue South
Kent, WA
Delta Project No. 5544-M02

Date Started	: 02/12/02	Drilling Company	: Cascade Drilling
Date Completed	: 02/12/02	Well Screen Slot size	: 0.010-in.
Hole Diameter	: ~11 in.	Seal Material	: Bentonite Chip
Drilling Method	: 4-1/4 I.D. HSA	Sandpack Material	: 2-12 Silica Sand
Sampling Method	: 2-in. I.D. split spoon	Logged By	: J. Coppernoll

Well: MW-1
Elev.:

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count Graph (0 20 40 60 80)	PID (ppm)	Recovery (inches)	Time Sampled
0			Asphalt surface.					
1			The first 5 feet of the boring is advanced by vacuum. No sample.					
2								
3								
4								
5								
6	SP		SAND: red-brown, moist, fine to medium-grained well-sorted (SP).	1		0	18	9:10
7								
8								
9								
10								
11	ML		SILT: gray, moist, with wood debris (ML).	2		0	18	9:15
12								
13								
14								
15								
16	SP		SAND: red-brown, saturated fine-grained, well-sorted (SP).	3		0	18	9:20
17								
18			The boring is terminated at 19 feet and 2-inch diameter ground water monitoring well MW-1 is installed.					
19								

Cover
Surface Casing
Concrete
Seal
Sand Pack
Well Screen

04-17-2002 C:\My Documents\WGS\logs\Delta\5544\MW-1.BOR

Delta Environmental Consultants, Inc.

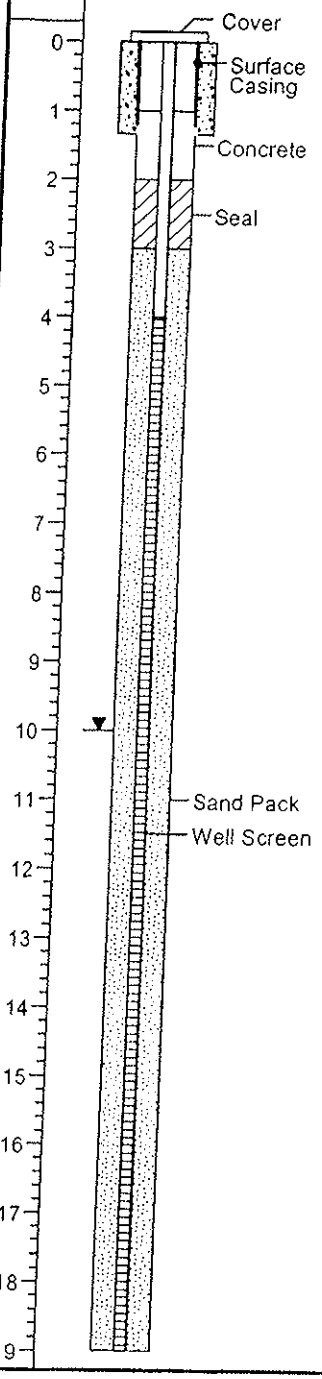
LOG OF BORING MW-2

(Page 1 of 1)

Former ARCO Facility No. 5544
19860 68th Avenue South
Kent, WA
Delta Project No. 5544-M02

Date Started	: 02/12/02	Drilling Company	: Cascade Drilling
Date Completed	: 02/12/02	Well Screen Slot size	: 0.010-in.
Hole Diameter	: ~11 in.	Seal Material	: Bentonite Chip
Drilling Method	: 4-1/4 I.D. HSA	Sandpack Material	: 2-12 Silica Sand
Sampling Method	: 2-in. I.D. split spoon	Logged By	: J. Coppernoll

Well: MW-2
Elev.:



Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count Graph (0 20 40 60 80)	PID (ppm)	Recovery (inches)	Time Sampled
0			Asphalt surface.					
1			The first 5 feet of the boring is advanced by vacuum. No sample.					
5	SP/ML		SAND/SILT: gray-brown, damp, very fine-grained with wood debris and lenses of silt (SP/ML). Gasoline-like odor is noted.	1		217	18	10:15
10	SP/ML		SAND/SILT: gray-brown, wet, fine to medium-grained sand interbedded with silt, with wood debris (SP/ML). Gasoline-like odor is noted.	2		706	18	10:20
14	SP/ML		Soil is saturated in the 15 foot sample.	3		48	18	10:25
19			The boring is terminated at 19 feet and 2-inch diameter ground water monitoring well MW-2 is installed.					

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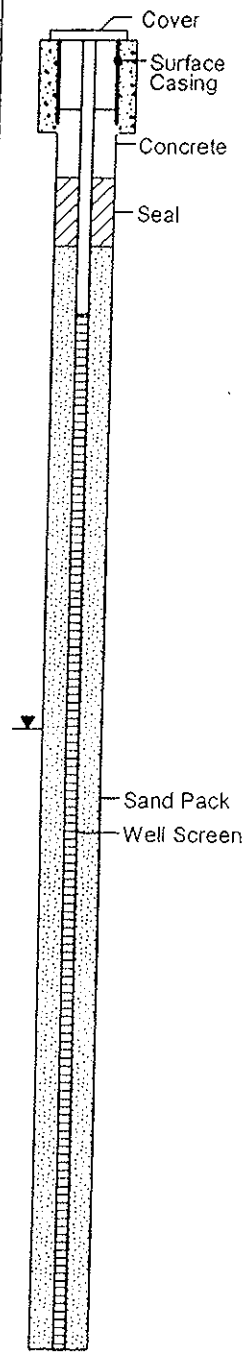
LOG OF BORING MW-3

Delta Environmental Consultants, Inc.

Former ARCO Facility No. 5544
19860 68th Avenue South
Kent, WA
Delta Project No. 5544-M02

Date Started	: 02/12/02	Drilling Company	: Cascade Drilling
Date Completed	: 02/12/02	Well Screen Slot size	: 0.010-in.
Hole Diameter	: ~11 in.	Seal Material	: Bentonite Chip
Drilling Method	: 4-1/4 I.D. HSA	Sandpack Material	: 2-12 Silica Sand
Sampling Method	: 2-in. I.D. split spoon	Logged By	: J. Coppernoll

Well: MW-3
Elev.:



Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count Graph (0 20 40 60 80)	PID (ppm)	Recovery (inches)	Time Sampled
0			Asphalt surface.					
1			The first 5 feet of the boring is advanced by vacuum. No sample.					
5	SP		SAND: red-brown, damp, fine-grained with minor silt and wood debris (SP).	1		0	18	11:50
10	SP/ML		SAND/SILT: red-brown, moist, fine to medium-grained sand interbedded with silt. Wood debris present in sand and silt (SP/ML).	2		0	18	11:55
15	ML		SILT: gray, moist, with roots and wood debris (ML).	3		0	18	12:00
19			The boring is terminated at 19 feet and 2-inch diameter ground water monitoring well MW-3 is installed.					

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LOG OF BORING MW-4

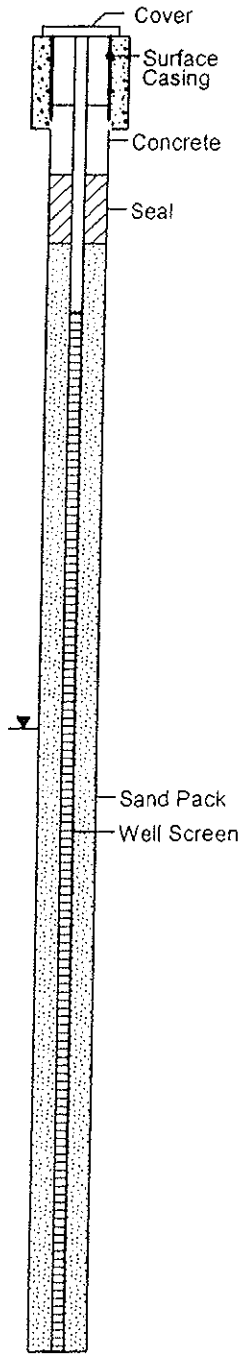
(Page 1 of 1)

Delta Environmental Consultants, Inc.

Former ARCO Facility No. 5544
19860 68th Avenue South
Kent, WA
Delta Project No. 5544-M02

Date Started	: 02/12/02	Drilling Company	: Cascade Drilling
Date Completed	: 02/12/02	Well Screen Slot size	: 0.010-in.
Hole Diameter	: ~11 in.	Seal Material	: Bentonite Chip
Drilling Method	: 4-1/4 I.D. HSA	Sandpack Material	: 2-12 Silica Sand
Sampling Method	: 2-in. I.D. split spoon	Logged By	: J. Coppernoll

Well: MW-4
Elev.:



Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count Graph (0 20 40 60 80)	PID (ppm)	Recovery (inches)	Time Sampled
0			Asphalt surface.					
1			The first 5 feet of the boring is advanced by vacuum. No sample.					
2								
3								
4								
5								
6	SP		SAND: dark-gray, moist, fine-grained, well-sorted (SP).	1		0	18	13:30
7								
8								
9								
10								
11	ML		SILT: gray, wet, with roots and wood debris (ML).	2		0	18	13:35
12								
13								
14								
15								
16	SP		SAND: dark-gray, fine, with minor silt (SP).	3		2.2	18	13:40
17								
18			The boring is terminated at 19 feet and 2-inch diameter ground water monitoring well MW-4 is installed.					
19								

04-17-2002 C:\My Documents\WGS\logs\Delta\5544\MW-4.BOR

LOG OF BORING MW-5

(Page 1 of 1)

Delta Environmental Consultants, Inc.

Former ARCO Facility No. 5544
19860 68th Avenue South
Kent, WA
Delta Project No. 5544-M02

Date Started	: 02/12/02	Drilling Company	: Cascade Drilling
Date Completed	: 02/12/02	Well Screen Slot size	: 0.010-in.
Hole Diameter	: ~11 in.	Seal Material	: Bentonite Chip
Drilling Method	: 4-1/4 I.D. HSA	Sandpack Material	: 2-12 Silica Sand
Sampling Method	: 2-in. I.D. split spoon	Logged By	: J. Coppernoll

Well: MW-5
Elev.:

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count Graph (0 20 40 60 80)	PID (ppm)	Recovery (inches)	Time Sampled
0			Asphalt surface.					
1			The first 5 feet of the boring is advanced by vacuum. No sample.					
2								
3								
4								
5								
6			SAND/SILT: dark-gray, moist, fine-grained, sand with minor silt interbedded with orange-mottled gray, moist, silt (SP/ML). Gasoline-like odor noted.	1		62	18	14:30
7								
8								
9								
10	SP/ML		Ten-foot sample is wet. Gasoline-like odor noted.	2		66	18	14:35
11								
12								
13								
14								
15			SAND: dark-gray, saturated, with minor silt (SP). Gasoline-like odor noted.	3		91	18	14.40
16								
17	SP		The boring is terminated at 19 feet and 2-inch diameter ground water monitoring well MW-5 is installed.					
18								
19								

Cover
Surface Casing
Concrete
Seal
Sand Pack
Well Screen

04-17-2002 C:\My Documents\WGS\logs\Delta\5544\MW-5.BOR

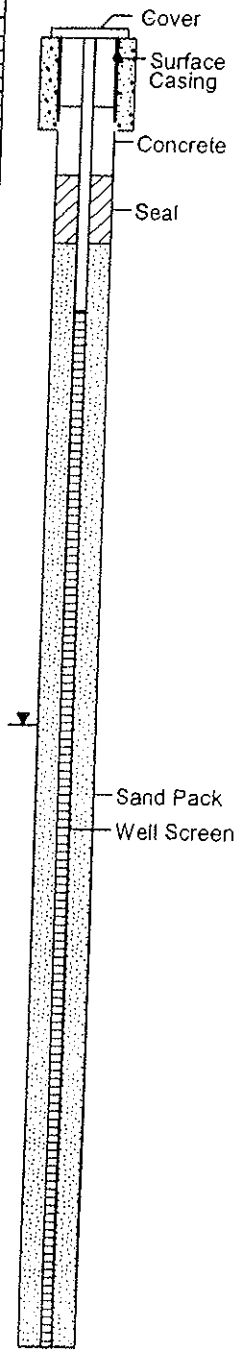
LOG OF BORING MW-6

Delta Environmental Consultants, Inc.

Former ARCO Facility No. 5544
19860 68th Avenue South
Kent, WA
Delta Project No. 5544-M02

Date Started	: 02/13/02	Drilling Company	: Cascade Drilling
Date Completed	: 02/13/02	Well Screen Slot size	: 0.010-in.
Hole Diameter	: ~11 in.	Seal Material	: Bentonite Chip
Drilling Method	: 4-1/4 I.D. HSA	Sandpack Material	: 2-12 Silica Sand
Sampling Method	: 2-in. I.D. split spoon	Logged By	: J. Coppernoll

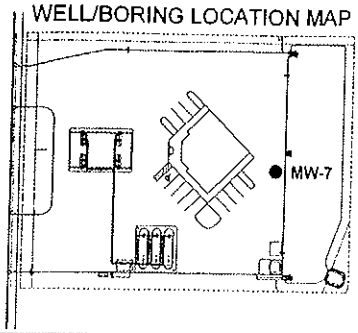
Well: MW-6
Elev.:



Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count Graph (0 20 40 60 80)	PID (ppm)	Recovery (inches)	Time Sampled
0			Asphalt surface.					
1			The first 5 feet of the boring is advanced by vacuum. No sample.					
2								
3								
4								
5								
6	SP/ML		SAND/SILT: brown-gray, moist, fine-grained, sand with minor silt interbedded with tan-gray moist silt (SP/ML). Gasoline-like odor noted.	1		2000+	18	8:05
7								
8								
9								
10			Ten and 15-foot samples are wet. Gasoline-like odor noted.	2		2000+	18	8:10
11								
12								
13								
14								
15								
16			No odor noted in 19-foot sample.	3		1900	18	8:15
17			The boring is terminated at 19 feet and 2-inch diameter ground water monitoring well MW-6 is installed.					
18								
19								

04-17-2002 C:\My Documents\WGSlogs\Delta\5544MW-6.BOR

WELL/BORING LOCATION MAP



Delta Environmental Consultants, Inc.

WELL/BORING: MW-7

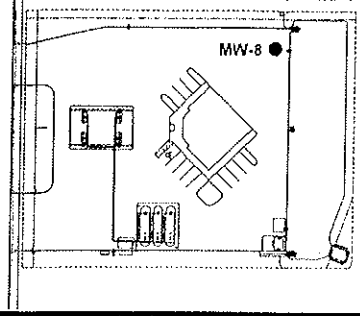
INSTALLATION DATE: 4/7/03	DRILLING METHOD: Hollow Stem Auger
PROJECT: AM00-510-U (ARCO 5544)	SAMPLING METHOD: DM Split Spoon
CLIENT: Atlantic Richfield Company	BORING DIAMETER: 11"
LOCATION: 19860 68th Avenue South	BORING DEPTH: 19'
CITY: Kent	WELL CASING: SCH 40 PVC 2"
STATE: WA	WELL SCREEN: 4 - 19' (0.010")
DRILLER: Cascade	SAND PACK: 3 - 16' (2 X12)

CASING ELEVATION	
SURVEY DATE:	
DTW:	9.24

DESCRIPTION/LOGGED BY: Corvi Katsaros

WELL/BORING COMPLETION	FIRST ▽	STABILIZED ▼	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	DESCRIPTION
Concrete						0					Asphalt
Bentonite						1					SILT: brown; layered with sand.
						2					
						3					
						4					
						5			ML		SILT: gray; plastic.
Sand			MST	2.8	8 12 12	6			SP		SAND: dark brown; fine to medium grained; loose; medium dense.
	▽					7					
			WT	0.8	4 4 4	8					
		▼				9					
			WT	0.5	4 4 4	10			ML		SILT: gray; plastic; trace fine sand; clay and peat; firm.
						11					
						12					
						13					
						14					SILT: gray; plastic.
			WT	0.5	3 7 10	15					
						16			SP		SAND: gray; medium to fine grained; grading upward into silt; small ants organic debris; medium dense.
						17					
						18					
						19					Heaving sand no sample.
						20					
						21					
						22					

WELL/BORING LOCATION MAP



Delta Environmental Consulta[illegible], Inc.

WELL/BORING: MW-8

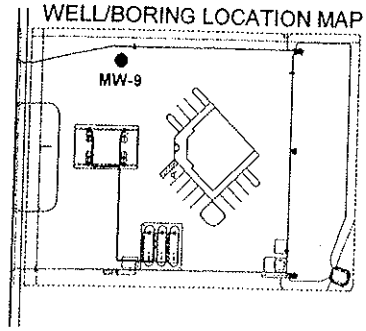
INSTALLATION DATE: 4/7/03	DRILLING METHOD: Hollow Stem Auger
PROJECT: AM00-510-U (ARCO 5544)	SAMPLING METHOD: DM Split Spoon
CLIENT: Atlantic Richfield Company	BORING DIAMETER: 8"
LOCATION: 19860 68th Avenue South	BORING DEPTH: 19'
CITY: Kent	WELL CASING: SCH 40 PVC 2"
STATE: WA	WELL SCREEN: 4 - 19' (0.010")
DRILLER: Cascade	SAND PACK: 3 - 19' (2 X12)

CASING ELEVATION	
SURVEY DATE:	
DTW:	8.45

DESCRIPTION/LOGGED BY: Corvi Katsaros

WELL/BORING COMPLETION	FIRST ▽	STABILIZED ▼	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	
Concrete / Bentonite / Sand			MST	1.2	6 9 10	5–6			SP		Asphalt SAND: dark brown; medium to fine grained; medium dense.
	▽	▼	WT	1.5	3 3 3	7–8			ML		SAND: same as above. SILT: gray.
			WT	1.9	3 3 4	10–11			SP		SAND: gray; medium to fine grained; loose.
			WT	4.7	5 6 12	15–16			SP		SAND: medium grey; fine grained grading down to silt; medium dense.
						19					No sample heaving sand.

WELL/BORING LOCATION MAP



Delta Environmental Consultants, Inc.

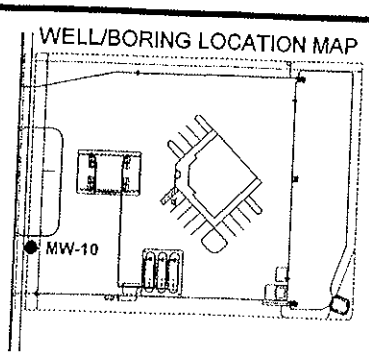
WELL/BORING: MW-9

INSTALLATION DATE: 4/7/03	DRILLING METHOD: Hollow Stem Auger
PROJECT: AM00-510-U (ARCO 5544)	SAMPLING METHOD: DM Split Spoon
CLIENT: Atlantic Richfield Company	BORING DIAMETER: 8"
LOCATION: 19860 68th Avenue South	BORING DEPTH: 19'
CITY: Kent	WELL CASING: SCH 40 PVC 2"
STATE: WA	WELL SCREEN: 4 - 19' (0.010")
DRILLER: Cascade	SAND PACK: 3 - 16' (2 X12)

CASING ELEVATION	
SURVEY DATE:	
DTW:	8.77

DESCRIPTION/LOGGED BY: Corvi Katsaros

WELL/BORING COMPLETION	FIRST ▽	STABILIZED ▼	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	DESCRIPTION
Concrete											Asphalt
Bentonite						1			GP		Fill, pea gravel; sand.
						2					
						3					
						4					
Sand			MST	1.5	4 5 6	5			SM		SILTY SAND: dark gray; with gravel; stiff.
						6					
			MST	0.0	2 3 3	7			ML		SILT: dark gray; silt with very fine sand; loose.
		▼				8					
						9					
	▽		WT	0.0	7 4 5	10			SP		SAND: fine grained; gray well sorted; loose.
						11					
						12					
						13					
						14					
			WT	0.0	5 7 7	15			SP		SAND: fine grained; wet; gray; well sorted; medium dense.
						16					No sample heaving sand.
						17					
						18					
						19					
						20					
						21					
						22					



Delta Environmental Consultants, Inc.

WELL/BORING: MW-10

INSTALLATION DATE: 4/8/03	DRILLING METHOD: Hollow Stem Auger
PROJECT: AM00-510-U (ARCO 5544)	SAMPLING METHOD: DM Split Spoon
CLIENT: Atlantic Richfield Company	BORING DIAMETER: 8"
LOCATION: 19860 68th Avenue South	BORING DEPTH: 19'
CITY: Kent	WELL CASING: SCH 40 PVC 2"
STATE: WA	WELL SCREEN: 4 - 19' (0.010")
DRILLER: Cascade	SAND PACK: 3 - 19' (2 X12)

CASING ELEVATION	
SURVEY DATE:	
DTW:	8.59

DESCRIPTION/LOGGED BY: Corvi Katsaros

WELL/BORING COMPLETION	FIRST	STABILIZED	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	DESCRIPTION
Concrete / Bentonite / Sand						1			GP		Asphalt Fill, pea gravel.
			MST	31	6 10 16	5			SM		
			MST	9	5 13 14	7 8			SM		SILTY SAND: gray; <20% fines; trace organics; iron staining; very fine sand; trace fine to coarse sand; trace gravel.
			WT	4	2 2 4	10 11			SM		Same as above; increasing clay; no trace gravel; clay lenses.
			WT	0	50/6	15 16			SM		SILTY SAND: gray; 15% fines; very fine sand; trace fine to coarse sand; very dense.

Date Start/Finish: 7/28/2014 - 7/30/2014
Drilling Company: Cascade Drilling
Driller's Name: B. Hanratty & J. Gobel
Drilling Method: Air Knife/Vacuum Truck & HSA
Auger Size: 8"
Rig Type:
Sampling Method: Hand Auger & Split Spoon

Northing: 157690.55
Easting: 1290031.13
Casing Elevation: 26.88 feet

Borehole Depth: 20 feet bgs
Surface Elevation: 27.31 feet

Descriptions By: R.Brauchla / A.Baird

Well/Boring ID: **MW-11**

Client: BP West Coast Products, LLC.157

Location: ARCO 5544
19918 68th Ave. S
Kent, WA 98032

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N-Value	PID Headspace (ppm)	Analytical Sample	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0										Asphalt	Jet Set Cement
											Boring cleared to a depth of 6.8 feet bgs with air-knife and vacuum truck	8" Monument
												2" Well Cap
												Neat Cement
		1	HA	0.5	NA	NA	0.4		CL		Silty CLAY (CL): medium plasticity clay with silt and some rounded gravel, medium density, brown, moist	Bentonite Chips
												2" Schedule 40 PVC Riser
5	-5	2	HA	0.5	NA	NA	0.1		SW		SAND (SW): well-sorted fine-grained sand with trace fine gravel, loose, dark brown, moist	
		3	SS	1.0	1 2 1	3	9.7	X	SC		Sandy CLAY (SC): well-sorted fine-grained sand with clay, very loose, brown, moist	
												First Encountered Groundwater
10	-10	4	SS	1.5	2 2 3	5	7.8		SC		Sandy CLAY (SC): well-sorted fine-grained sand with clay, loose, brown, wet	
												2/12 Silica Sand
		5	SS	1.5	2 3 5	8	5.7		SW		SAND (SW): well-sorted fine-grained sand with trace clay, loose, brown, wet	0.010" Schedule 40 PVC Screen
15	-15	6	SS	1.5	4 4 4	8	6.9		SW		SAND (SW): well-sorted fine-grained sand, loose, brown, wet	
		7	SS	1.5	2 4 5	9	11.2	X	SW		SAA	
20	-20											

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Remarks:
bgs = below ground surface
SS = Split Spoon
NA = Not Available
PID = Photoionization Detector
HA = Hand Auger
HSA = Hollow-stem Auger
SAA = Same as Above
ppm = parts per million

Project Number:GP09BPNA.WA39
Data File:
Date: 8/29/2014
Created/Edited by:RB

Date Start/Finish: 7/28/2014 - 7/30/2014
Drilling Company: Cascade Drilling
Driller's Name: B. Hanratty & J. Gobel
Drilling Method: Air Knife/Vacuum Truck & HSA
Auger Size: 8"
Rig Type:
Sampling Method: Hand Auger & Split Spoon

Northing: 157695.68
Easting: 1299950.99
Casing Elevation: 27.26 feet

Borehole Depth: 20 feet bgs
Surface Elevation: 27.75 feet

Descriptions By: R.Brauchla / A.Baird

Well/Boring ID: **MW-12**

Client: BP West Coast Products, LLC.

Location: ARCO 5544
19918 68th Ave. S
Kent, WA 98032

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N-Value	PID Headspace (ppm)	Analytical Sample	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0										Asphalt	Jet Set Cement; 8" Monument; 2" Well Cap; Neat Cement
											Boring cleared to a depth of 7 feet bgs with air-knife and vacuum truck	
		1	HA	0.5	NA	NA	0.4		SC		Sandy CLAY (SC): low plasticity clay with silt, medium-grained sand, and trace fine rounded gravel, medium density, dark brown, moist	Bentonite Chips; 2" Schedule 40 PVC Riser
5	-5	2	HA	0.5	NA	NA	0.3	X	CL		CLAY (CL): medium plasticity light brown clay with little well-sorted medium-grained dark brown sand, medium density, moist	
		3	SS	1.5	1 2 2	4	4.0		SW		SAND (SW): fine-grained sand with trace clay, very loose, brown, moist	
10	-10	4	SS	1.5	2 3 4	7	21.2		SC		Sandy CLAY (SC): fine-grained sand with some clay, loose, brown, wet	First Encountered Groundwater; 2/12 Silica Sand
		5	SS	1.5	2 4 3	7	94.1	X	SC		SAA	0.010" Schedule 40 PVC Screen
									SW		SAND (SW): fine-grained sand, loose, brown, wet	
15	-15	6	SS	1.5	8 10 10	20	22.1		SW		SAA	
									CL		CLAY (CL): medium plasticity clay with silt and some sand, stiff, brown, wet	
		7	SS	1.5	8 10 12	22	14.8	X	CL		SAA	
20	-20								SW		SAND (SW): fine-grained sand, medium density, brown, wet	

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Remarks:
bgs = below ground surface
SS = Split Spoon
NA = Not Available
PID = Photoionization Detector
SAA = Same as Above
HA = Hand Auger
HSA = Hollow-stem Auger
NE = Not Established
ppm = parts per million

Project Number:GP09BPNA.WA39
Data File:
Date: 8/29/2014
Created/Edited by:RB

Date Start/Finish: 7/28/2014 - 7/30/2014
Drilling Company: Cascade Drilling
Driller's Name: B. Hanratty & J. Goble
Drilling Method: Air Knife/Vacuum Truck & HSA
Auger Size: 8"
Rig Type:
Sampling Method: Hand Auger & Split Spoon

Northing: 157647.42
Easting: 1289948.53
Casing Elevation: 27.27 feet

Borehole Depth: 20 feet bgs
Surface Elevation: 27.79

Descriptions By: R.Brauchla / A.Baird

Well/Boring ID: **MW-13**

Client: BP West Coast Products, LLC.

Location: ARCO 5544
19918 68th Ave. S
Kent, WA 98032

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N-Value	PID Headspace (ppm)	Analytical Sample	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0										Asphalt	Jet Set Cement; 8" Monument; 2" Well Cap; Neat Cement
											Boring cleared to a depth of 7 feet bgs with air-knife and vacuum truck	
		1	HA	0.5	NA	NA	0.5		SP		Gravelly SAND (SP): poorly-sorted fine-to-medium-grained sand with rounded gravel, dense, dark brown, moist	Bentonite Chips; 2" Schedule 40 PVC Riser
5	-5	2	HA	0.5	NA	NA	0.2	X	SC		Sandy CLAY (SC): low plasticity clay with silt, medium-grained sand, and trace fine rounded gravel, medium density, dark brown, moist	
		3	SS	1.5	3 2 3	5	125.8	X	SW		SAND (SW): fine-grained sand with trace nonplastic silt, loose, black, moist	
10	-10	4	SS	1.5	3 5 5	10	4.8		SW		SAA	First Encountered Groundwater; 2/12 Silica Sand
									CL		CLAY (CL): high plasticity clay with trace sand, very soft, black, wet	
		5	SS	1.5	6 6 8	15	9.8		CL		SAA	0.010" Schedule 40 PVC Screen
									SW		SAND (SW): well-sorted fine-grained sand, medium density, black, wet	
15	-15	6	SS	1.5	8 10 10	20	5.1		CL		CLAY (CL): high plasticity clay, very soft, black, wet	
									SW		SAND (SW): well-sorted fine-grained sand with trace nonplastic silt, medium density, black, wet	
		7	SS	1.5	6 5 6	11	5.5	X	SW		SAND (SW): well-sorted fine-grained sand with trace nonplastic silt, medium density, black, wet	
20	-20								CL		CLAY (CL): high plasticity clay, stiff, black, wet	

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Remarks:
bgs = below ground surface
HSA = Hollow-stem Auger
NA = Not Available
PID = Photoionization Detector
HA = Hand Auger
SAA = Same as Above
SS= = Spilt Spoon
ppm = parts per million

Project Number:GP09BPNA.WA39
Data File:
Date: 8/29/2014
Created/Edited by:RB

PROJECT: **BP #5544**
LOCATION: **19918 68th Avenue S. Kent, WA**
PROJECT NUMBER: **185751342.WA-05544**

WELL / PROBEHOLE / BOREHOLE NO: **MW-14**
PAGE 1 OF 1

Stantec

DRILLING: **12/07/21** STARTED: **09:30** COMPLETED: **12:15**
INSTALLATION: STARTED: COMPLETED:
DRILLING COMPANY: **Cascade Drilling Inc.**
DRILLING EQUIPMENT: **Geoprobe 7822 DT**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **Continuous-Acetate liner**

NORTHING (ft): EASTING (ft):
LATITUDE: LONGITUDE:
GROUND ELEV (ft): TOC ELEV (ft):
INITIAL DTW (ft): **9** BOREHOLE DEPTH (ft): **20**
STATIC DTW (ft): **8.24** WELL DEPTH (ft): **19**
WELL CASING DIA. (in): **2** BOREHOLE DIA.(in): **3**
LOGGED BY: **GMC** CHECKED BY: **GS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
			Topsoil (Grass).							8" Steel Flush Mount well casing. Concrete
		SW-SC	SW-SC; Air Knife to 8 ft. Well graded sand with clay, brown, fine to coarse grained, moist. Loose. No TPH odor or visible contamination.							Hydrated Bentonite
5					MW-14-5 @ 1000	2/2		0.0	5	Sand 10/20
		SW	SW; Well graded sand, gray, fine to coarse grained, wet. Loose. Trace to little silt. No TPH odor or visible contamination.							
10		SW	SW; Well graded sand, gray, fine to coarse grained, wet. Loose. Trace to little silt. No TPH odor or visible contamination.		MW-14-10 @ 1145	5/5		0.0	10	2" 0.01" slot PVC Sch. 40
15		SW	SW; Well graded sand, gray, fine to coarse grained, wet. Loose. Trace to little silt. No TPH odor or visible contamination.		MW-14-15 @ 1150	5/5		0.0	15	
					MW-14-20 @ 1200			0.0		Well tag #BNC-612

Borehole terminated at 20 feet.

GEO FORM 304 BP #5544_BORING LOGS.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 12/30/21

PROJECT: **BP #5544**
LOCATION: **19918 68th Avenue S. Kent, WA**
PROJECT NUMBER: **185751342.WA-05544**

WELL / PROBEHOLE / BOREHOLE NO: **MW-15**
PAGE 1 OF 1

Stantec

DRILLING: **12/07/21** STARTED: **12:15** COMPLETED: **13:45**
INSTALLATION: STARTED: COMPLETED:
DRILLING COMPANY: **Cascade Drilling Inc.**
DRILLING EQUIPMENT: **Geoprobe 7822 DT**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **Continuous-Acetate liner**

NORTHING (ft): EASTING (ft):
LATITUDE: LONGITUDE:
GROUND ELEV (ft): TOC ELEV (ft):
INITIAL DTW (ft): **9** BOREHOLE DEPTH (ft): **20**
STATIC DTW (ft): **8.47** WELL DEPTH (ft): **19**
WELL CASING DIA. (in): **2** BOREHOLE DIA.(in): **3**
LOGGED BY: **GMC** CHECKED BY: **GS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
			Topsoil (Grass).							8" Steel Flush Mount well casing. Concrete
		SW	SW; Air Knife to 8 ft. Well graded sand with silt, brown, fine to coarse grained, moist. Loose. Trace to little silt. No TPH odor or visible contamination.							Hydrated Bentonite
5					MW-15-5 @ 1215	2/2		0.0	5	Sand 10/20
		SW	SW; Well graded sand, gray, fine to coarse grained, wet. Loose. Trace silt. No TPH odor or visible contamination.							
10		SW	SW; Well graded sand, gray, fine to coarse grained, wet. Loose. Trace silt. No TPH odor or visible contamination.		MW-15-10 @ 1245	5/5		0.2	10	2" 0.01" slot PVC Sch. 40
15		SW	SW; Well graded sand, gray, fine to coarse grained, wet. Loose. Trace silt. No TPH odor or visible contamination.		MW-15-15 @ 1250	5/5		0.1	15	
					MW-15-20 @ 1300			1.0		Well tag #BNC-613

Borehole terminated at 20 feet.

GEO FORM 304 BP #5544_BORING LOGS.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 12/30/21

PROJECT: **BP #5544**
LOCATION: **19918 68th Avenue S. Kent, WA**
PROJECT NUMBER: **185751342.WA-05544**

WELL / PROBEHOLE / BOREHOLE NO: **MW-16**
PAGE 1 OF 1

Stantec

DRILLING: **12/07/21** STARTED: **10:40** COMPLETED: **14:00**
INSTALLATION: STARTED: COMPLETED:
DRILLING COMPANY: **Cascade Drilling Inc.**
DRILLING EQUIPMENT: **Geoprobe 7822 DT**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **Continuous-Acetate liner**

NORTHING (ft): EASTING (ft):
LATITUDE: LONGITUDE:
GROUND ELEV (ft): TOC ELEV (ft):
INITIAL DTW (ft): **11.5** BOREHOLE DEPTH (ft): **20**
STATIC DTW (ft): **10.01** WELL DEPTH (ft): **19**
WELL CASING DIA. (in): **2** BOREHOLE DIA.(in): **3**
LOGGED BY: **GMC** CHECKED BY: **GS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
			Topsoil (Grass).							8" Steel Flush Mount well casing. Concrete
		SW	SW; Air Knife to 8 ft. Well graded sand with silt, brown, fine to coarse grained, moist. Loose. Trace silt. Trace fine subrounded gravel. No TPH odor or visible contamination.							Hydrated Bentonite
5					MW-16-5 @ 1105	2/2		0.0	5	Sand 10/20
		SW	SW; Well graded sand, brown, fine to coarse grained, wet. Loose. No TPH odor or visible contamination.							
10		SW	SW; Well graded sand, gray, fine to coarse grained, wet. Loose. No TPH odor or visible contamination.		MW-16-10 @ 1325	5/5		0.1	10	2" 0.01" slot PVC Sch. 40
15		SW	SW; Well graded sand, gray, fine to coarse grained, wet. Loose. No TPH odor or visible contamination.		MW-16-15 @ 1335	5/5		1.7	15	
					Dup-1 MW-16-20 @ 1345			2.7		Well tag #BNC-614

Borehole terminated at 20 feet.

GEO FORM 304 BP #5544_BORING LOGS.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 12/30/21

PROJECT: **BP #5544**
LOCATION: **19918 68th Avenue S. Kent, WA**
PROJECT NUMBER: **185751342.WA-05544**

WELL / PROBEHOLE / BOREHOLE NO: **MW-17**
PAGE 1 OF 1

DRILLING: **12/07/21** STARTED: **14:00** COMPLETED: **15:45**
INSTALLATION: STARTED: COMPLETED:
DRILLING COMPANY: **Cascade Drilling Inc.**
DRILLING EQUIPMENT: **Geoprobe 7822 DT**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **Continuous-Acetate liner**

NORTHING (ft): EASTING (ft):
LATITUDE: LONGITUDE:
GROUND ELEV (ft): TOC ELEV (ft):
INITIAL DTW (ft): **8.0** BOREHOLE DEPTH (ft): **20**
STATIC DTW (ft): **7.87** WELL DEPTH (ft): **19**
WELL CASING DIA. (in): **2** BOREHOLE DIA.(in): **3**
LOGGED BY: **GMC** CHECKED BY: **GS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
			Asphalt.							8" Steel Flush Mount well casing. Concrete
		SW	SW; Air Knife to 8 ft. Well graded sand, brown, fine to coarse grained, moist. Loose. No TPH odor or visible contamination.							Hydrated Bentonite
5					MW-17-5 @ 1425	2/2		0.1	5	Sand 10/20
		SW	SW; Well graded sand, brown, fine to coarse grained, wet at 8 ft. Loose. No TPH odor or visible contamination.							
10		SW	SW; Well graded sand, gray, fine to coarse grained, wet. Loose. No TPH odor or visible contamination.		MW-17-10 @ 1510	5/5		0.3	10	2" 0.01" slot PVC Sch. 40
15		SW	SW; Well graded sand, gray, fine to coarse grained, wet. Loose. No TPH odor or visible contamination.		MW-17-15 @ 1520	5/5		0.2	15	
					MW-17-20 @ 1530			0.1		Well tag #BNC-615

Borehole terminated at 20 feet.

PROJECT: **BP #5544**
LOCATION: **19918 68th Avenue S. Kent, WA**
PROJECT NUMBER: **185751342.WA-05544**

WELL / PROBEHOLE / BOREHOLE NO: **SB-1**
PAGE 1 OF 1

Stantec

DRILLING: **12/07/21** STARTED: **15:40** COMPLETED: **16:45**
INSTALLATION: STARTED: COMPLETED:
DRILLING COMPANY: **Cascade Drilling Inc.**
DRILLING EQUIPMENT: **Geoprobe 7822 DT**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **Continuous-Acetate liner**

NORTHING (ft): EASTING (ft):
LATITUDE: LONGITUDE:
GROUND ELEV (ft): TOC ELEV (ft):
INITIAL DTW (ft): **8.0** BOREHOLE DEPTH (ft): **20**
STATIC DTW (ft): **Not Encountered** WELL DEPTH (ft):
WELL CASING DIA. (in): **---** BOREHOLE DIA.(in): **3**
LOGGED BY: **GMC** CHECKED BY: **GS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			Asphalt.						
		SW	SW; Air Knife to 8 ft. Well graded sand with silt, brown, fine to coarse grained, moist. Loose. Little silt. No TPH odor or visible contamination.						
5					SB-1-5 @ 1545			0.0	5
						0/2			▽
		SW	SW; No recovery.						
10		SW	SW; Well graded sand, gray, fine to coarse grained, wet. Medium dense. No TPH odor or visible contamination.						10
						5/5			
15		SW	SW; Well graded sand, gray, fine to coarse grained, wet. Medium dense. No TPH odor or visible contamination.		Dup-2 SB-1-15 @ 1610			0.1	15
						5/5			
					SB-1-20 @ 1620			0.1	

Borehole terminated at 20 feet.

GEO FORM 304 BP #5544_BORING LOGS.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 12/30/21

Date Start/Finish: 7/29/2014 - 7/30/2014
Drilling Company: Cascade Drilling
Driller's Name: J. Gobel
Drilling Method: Air Knife/Vacuum Truck & HA
Auger Size: 3"
Rig Type:
Sampling Method: Hand Auger & Split Spoon

Northing: NE
Easting: NE
Casing Elevation: NE

Borehole Depth: 14 feet bgs
Surface Elevation: NE

Descriptions By: R. Brauchla / A. Baird

Well/Boring ID: **AUS-SB-1**

Client: BP West Coast Products, LLC.

Location: ARCO 5544
19918 68th Ave. S
Kent, WA 98032

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N-Value	PID Headspace (ppm)	Analytical Sample	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0										Asphalt	Jet Set Cement
											Boring cleared to a depth of 8.0 feet bgs with air-knife and vacuum truck	Neat Cement
		1	HA	0.5	NA	NA	0.2		SP		Gravelly SAND (SP): poorly-sorted medium-to-coarse-grained sand with some rounded gravel, dense, dark brown, moist	
		2	HA	0.5	NA	NA	0.9		ML		SILT (ML): low plasticity silt, dense, dark brown, damp	
5	-5	3	HA	0.5	NA	NA	1.0		CL		CLAY (CL): medium plasticity clay with silt, very dense, dark brown, moist, sticky	
		4	HA	0.5	NA	NA	8.1	X	SM		Silty SAND (SM): well sorted fine-grained sand with nonplastic silt, loose, brown, damp, roots & woody debris	Bentonite Chips
10	-10	5	SS	1.5	3 2 3	5	0.2		SM		SAA	
									CL		CLAY (CL): medium plasticity clay, loose, brown, moist	
		6	SS	1.5	6 6 7	13	1.0	X	CL		SAA	
									SW		SAND (SW): fine sand, medium density, brown, moist	

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Remarks: bgs = below ground surface
HA = Hand Auger
Photoionization Detector
ppm = parts per million
NA = Not Available
NE = Not Established

Project Number:GP09BPNA.WA39
Data File:

Date: 8/29/2014

Created/Edited by:RB

Date Start/Finish: 7/29/2014
Drilling Company: Cascade Drilling
Driller's Name: J. Gobel
Drilling Method: Air Knife/Vacuum Truck & HA
Auger Size: 3"
Rig Type:
Sampling Method: Hand Auger

Northing: NE
Easting: NE
Casing Elevation: NE

Borehole Depth: 12.5 feet bgs
Surface Elevation: NE

Descriptions By: R.Brauchla / A.Baird

Well/Boring ID: **AUS-SB-2**

Client: BP West Coast Products, LLC.

Location: ARCO 5544
19918 68th Ave. S
Kent, WA 98032

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0										Asphalt	Jet Set Cement
											Boring cleared to a depth of 9.5 feet bgs with air-knife and vacuum truck	Neat Cement
		1	HA	0.5	NA	NA	0.3		CL		CLAY (CL): medium plasticity clay with silt and some fine rounded gravel, dense, brown, moist	
5	-5	2	HA	0.5	NA	NA	1.1	X	GW		GRAVEL (GW): fine rounded gravel with some medium plasticity silt and clay, dense, brown, moist	
		3	HA	0.5	NA	NA	0.2	X	CL		CLAY (CL): low plasticity clay with silt and fine rounded gravel, dense, brown, wet	Bentonite Chips First Encountered Groundwater
10	-10	4	HA	0.5	NA	NA	0.3		CL		CLAY (CL): low plasticity clay with silt, dense, brown, wet (slurry)	
		5	HA	0.5	NA	NA	0.5	X	CL		SAA, grey-brown	

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Remarks:
bgs = below ground surface
HCLO = Hydrocarbon-like Odor
NA = Not Available
PID = Photoionization Detector
HA = Hand Auger
SAA = Same as Above
NE = Not Established
ppm = parts per million

Project Number:GP09BPNA.WA39
Data File:
Template:
Date: 8/25/2014
Created/Edited by:RB

Date Start/Finish: 7/28/2014 - 7/30/2014
Drilling Company: Cascade Drilling
Driller's Name: J. Goble
Drilling Method: Hand Auger
Auger Size: 3"
Rig Type:
Sampling Method: Hand Auger

Northing: NE
Easting: NE
Casing Elevation: NE

Borehole Depth: 5.5 feet bgs
Surface Elevation: NE

Descriptions By: Ryan Brauchla

Well/Boring ID: **AUS-HB-3**

Client: BP West Coast Products, LLC.

Location: ARCO 5544
19918 68th Ave. S
Kent, WA 98032

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N-Value	PID Headspace (ppm)	Analytical Sample	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0										Concrete (8") underlain by pea gravel (1-2")	Jet Set Cement
												Neat Cement
											Gravelly SAND (SP): poorly-sorted fine-to-medium-grained sand with coarse (>3") rounded gravel, dense, brown, damp	
									SP			
		1	HA	0.5	NA	NA	0.5					Bentonite Chips
											SAND (SW): well sorted medium-grained sand, loose, dark brown, moist	
									SW			
5	-5										Sandy CLAY (SC): low to medium plasticity masses of light brown clay in a dark brown fine-to-medium-grained moderately well sorted sand matrix, dense, moist	
		2	HA	0.5	NA	NA	0.5		SC			

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Remarks: bgs = below ground surface
HA = Hand Auger
NA = Not Available
NE = Not Established
PID = Photoionization Detector
ppm = parts per million

Project Number:GP09BPNA.WA39
Data File:

Date: 8/29/2014 Created/Edited by:RB

Date Start/Finish: 7/28/2014
Drilling Company: Cascade Drilling
Driller's Name: J. Goble
Drilling Method: Hand Auger
Auger Size: 3"
Rig Type:
Sampling Method: Hand Auger

Northing: NE
Easting: NE
Casing Elevation: NE

Borehole Depth: 5.5 feet bgs
Surface Elevation: NE

Descriptions By: Ryan Brauchla

Well/Boring ID: **AUS-HB-4**

Client: BP West Coast Products, LLC.

Location: ARCO 5544
19918 68th Ave. S
Kent, WA 98032

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N-Value	PID Headspace (ppm)	Analytical Sample	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0										Concrete (8") underlain by pea gravel (1-2")	Jet Set Cement
												Neat Cement
											Gravelly SAND (SP): poorly-sorted fine-to-medium-grained sand with coarse (>3") rounded gravel, dense, brown, moist	
									SP			
		1	HA	0.5	NA	NA	0.3					
												Bentonite Chips
											SAND (SW): well sorted medium-grained subangular sand, loose, dark brown, moist	
									SW			
											Sandy CLAY (SC): medium plasticity clay with fine-to-medium-grained poorly sorted brown sand, dense, orange to light brown, moist	
5	-5	2	HA	0.5	NA	NA	22.9		SC			

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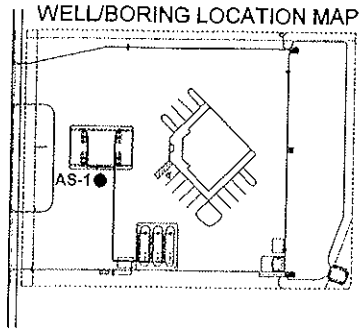
Remarks:
bgs = below ground surface
HA = Hand Auger
NA = Not Available
NE = Not Established
PID = Photoionization Detector
ppm = parts per million

Project Number:GP09BPNA.WA39
Data File:

Date: 8/29/2014 Created/Edited by:RB

WELL/BORING LOCATION MAP



Delta Environmental Consultants, Inc.

WELL/BORING: AS-1

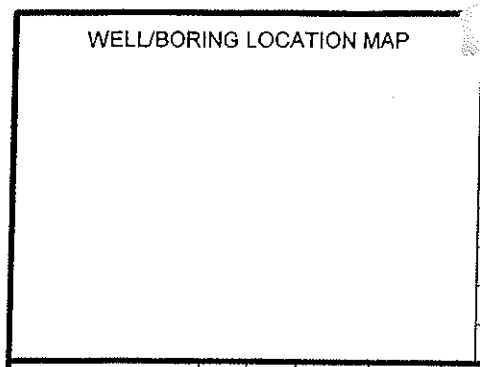
INSTALLATION DATE: 4/8/03	DRILLING METHOD: Hollow Stem Auger
PROJECT: AM00-510-U (ARCO 5544)	SAMPLING METHOD: DM Split Spoon
CLIENT: Atlantic Richfield Company	BORING DIAMETER: 8"
LOCATION: 19860 68th Avenue South	BORING DEPTH: 23'
CITY: Kent	WELL CASING: SCH 80 PVC/Stainless Steel
STATE: WA	WELL SCREEN: 20 - 23' (0.010")
DRILLER: Cascade	SAND PACK: 19 - 23' (2 X12)

CASING ELEVATION	
SURVEY DATE:	
DTW:	

DESCRIPTION/LOGGED BY: Corvi Katsaros

WELL/BORING COMPLETION	FIRST ▽	STABILIZED ▼	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	DESCRIPTION
						1			SP		Asphalt Fill: Sand with pea gravel.
						2					
						3					
						4					
			MST	87.1	4 6 9	5			ML		SILT: gray; clayey; moderate plasticity; trace very fine sand; stiff.
			MST	567	10 14 15	6					@7' SILT: gray; low plasticity; trace fine grained sand; iron staining; trace organics; very stiff.
						7					
						8					
						9					
Bentonite	▽		WT	411	9 9 9	10			ML		As above: increasing clay; no organics or iron; very stiff.
						11					
						12					
						13					
						14					
			WT	67	5 15 16	15					@15' Same as above: increasing clay.
						16					
						17			SM		@16.5' SILTY SAND: gray; 10% fines; dense.
						18					
						19					
Sand						20					
						21					
						22					

WELL/BORING LOCATION MAP



Delta Environmental Consultants, Inc.

WELL/BORING: AS-1

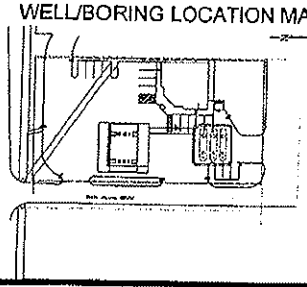
INSTALLATION DATE: 4/8/03	DRILLING METHOD: Hollow Stem Auger
PROJECT: AM00-510-U (ARCO 5544)	SAMPLING METHOD: DM Split Spoon
CLIENT: Atlantic Richfield Company	BORING DIAMETER: 8"
LOCATION: 19860 68th Avenue South	BORING DEPTH: 23'
CITY: Kent	WELL CASING: SCH 80 PVC/Stainless Stee
STATE: WA	WELL SCREEN: 20 - 23' (0.010")
DRILLER: Cascade	SAND PACK: 19 - 23' (2 X12)

CASING ELEVATION	
SURVEY DATE:	
DTW:	

DESCRIPTION/LOGGED BY: Corvi Katsaros

WELL/BORING COMPLETION	FIRST ▽	STABILIZED ▼	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC
Bentonite						23			SM	
						24				
						25				
						26				
						27				
						28				
						29				
						30				
						31				
						32				
						33				
						34				
						35				
						36				
						37				
						38				
						39				
						40				
						41				
						42				
						43				
						44				

WELL/BORING LOCATION MAP



Delta Environmental Consultants, Inc.

WELL/BORING: AS-2

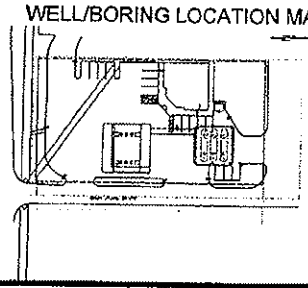
INSTALLATION DATE: 9/22/03	DRILLING METHOD: Hollow Stem Auger
PROJECT: AM00-510-V.M092	SAMPLING METHOD: DM Split Spoon
CLIENT: ARCO 5544	BORING DIAMETER: 2 "
LOCATION: 19918 68th Ave. South	BORING DEPTH: 23"
CITY: Kent	WELL CASING: SCH 40 PVC/SS
STATE: WA	WELL SCREEN: 21-23' (SS)
DRILLER: Cascade	SAND PACK: 19-23' (2 X12)

CASING ELEVATION	
SURVEY DATE:	
DTW:	

DESCRIPTION/LOGGED BY: Corvi Katsaros

WELL/BORING COMPLETION	FIRST ▽	STABILIZED ▼	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	
Bentonite						1					ASPHALT
						2			SM		SILTY SAND: gray; 5-15% silt; 85-95% fine grained sand; trace gravel; trace cobbles, tree roots.
						3					
						4					
			MST	2000	4 7 9	5					3" SILTY SAND: gray; 15% silt; 85% fine grained sand.
						6			ML		13" CLAYEY SILT: 100% fines; trace sand; iron stain; low plasticity; very stiff.
	▽					7					
						8					
						9					
			MST	2000	9 8 14	10			SM		CLAYEY SILT: light gray; trace fine grained sand; grades down into a silty sand and back to clayey silt; low plasticity.
						11			ML		
									SM		SILTY SAND: gray; fine grained sand; medium dense.
						12					
						13					
						14					
			WET	480	12 15 15	15			SM		SILTY SAND: gray; 35% silt; 65% fine grained sand; low plasticity; dense.
						16					
						17					
						18					
						19					
Sand			WET	675	16 39 23	20			SM		SILTY SAND: dark gray; 5% silt; 95% fine grained sand; one lense light gray clay; very dense.
						21					
						22					

WELL/BORING LOCATION MAP



Delta Environmental Consultants, Inc.

WELL/BORING: AS-3

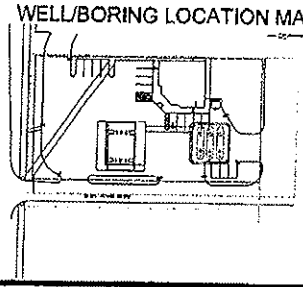
INSTALLATION DATE: 9/22/03	DRILLING METHOD: Hollow Stem Auger
PROJECT: AM00-510-V.M092	SAMPLING METHOD: DM Split Spoon
CLIENT: ARCO 5544	BORING DIAMETER: 2 "
LOCATION: 19918 68th Ave. South	BORING DEPTH: 23"
CITY: Kent	WELL CASING: SCH 40 PVC/SS
STATE: WA	WELL SCREEN: 21-23' (SS)
DRILLER: Cascade	SAND PACK: 19-23' (2 X12)

CASING ELEVATION	
SURVEY DATE:	
DTW:	

DESCRIPTION/LOGGED BY: Corvi Katsaros

WELL/BORING COMPLETION	FIRST ▽	STABILIZED ▼	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	
Bentonite						1					ASPHALT
						2			SM		SILTY SAND: gray; 5-15% silt; 75-85% fine grained sand; 10% gravel; trace cobbles; trace tree roots.
						3					
						4					
			MST	336	5 7 7	5			ML		CLAYEY SILT: light gray; 40% clay; 60% silt; trace fine grained sand; low plasticity.
						6			SM		7" SILTY SAND: gray; 40% silt; 60% fine grained sand; medium dense.
						7					
						8					
						9					
	▽		MST	980	5 12 9	10					
						11			SM		CLAYEY SILTY SAND: light gray; 30-40% fines; 60-70% fine grained sand; medium dense.
						12					
						13					
						14					
			WET	729	12 14 20	15			SM		SAME AS ABOVE: dark gray; dense.
						16					
						17					
						18					
						19					
Sand			WET		12 14 19	20			CL		3" CLAY: gray; moderate plasticity.
						21			SM		4" SILTY SAND: 25% silt; 75% very fine grained sand; dense.
						22					

WELL/BORING LOCATION MAP



Delta Environmental Consultants, Inc.

WELL/BORING: AS-4

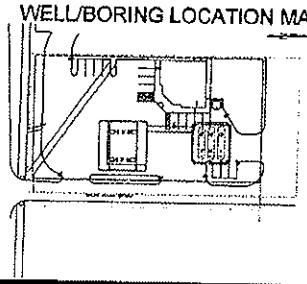
INSTALLATION DATE: 9/22/03	DRILLING METHOD: Hollow Stem Auger
PROJECT: AM00-510-V.M092	SAMPLING METHOD: DM Split Spoon
CLIENT: ARCO 5544	BORING DIAMETER: 2 "
LOCATION: 19918 68th Ave. South	BORING DEPTH: 23"
CITY: Kent	WELL CASING: SCH 40 PVC/SS
STATE: WA	WELL SCREEN: 21-23' (SS)
DRILLER: Cascade	SAND PACK: 19-23' (2 X12)

CASING ELEVATION	
SURVEY DATE:	
DTW:	

DESCRIPTION/LOGGED BY: Corvi Katsaros

WELL/BORING COMPLETION	FIRST ▽	STABILIZED ▼	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	DESCRIPTION
Bentonite						1					ASPHALT
						2			SM		SILTY SAND: gray; 10% silt; 80% fine to medium grained sand; 10% cobbles; gravel.
						3					
						4					
			MST	126	5 6 9	5			SM		SILTY SAND: gray; 10% silt; 85% fine grained sand; 5% gravel; medium dense.
						6					
						7					
	▽					8					
						9					
			MST	2000	5 6 5	10					SILTY SAND: same as above.
						11			ML		CLAYEY SANDY SILT : gray; 60% fines; 40% very fine grained sand; low to moderate plasticity in places; stiff.
						12					
						13					
						14					
			WET	224	18 20 20	15			SM		SILTY SAND: gray; 15% silt; 85% fine to very fine grained sand; coarsening downward; very dense.
						16					
						17					
						18					
						19					
Sand			WET	14	19 13 10	20			CL		6" CLAY: light gray; 100% clay; moderate plasticity.
						21			SM		SILTY SAND: with 10-35% fines; 65-90% sand; very dense.
						22					

WELL/BORING LOCATION MAP



Delta Environmental Consultants, Inc.

WELL/BORING: AS-5

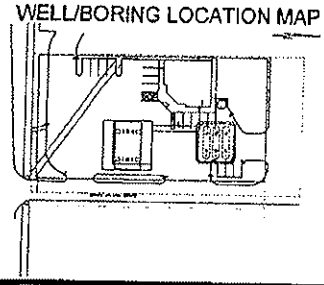
INSTALLATION DATE: 9/22/03	DRILLING METHOD: Hollow Stem Auger
PROJECT: AM00-510-V.M092	SAMPLING METHOD: DM Split Spoon
CLIENT: ARCO 5544	BORING DIAMETER: 2 "
LOCATION: 19918 68th Ave. South	BORING DEPTH: 23"
CITY: Kent	WELL CASING: SCH 40 PVC/SS
STATE: WA	WELL SCREEN: 21-23' (SS)
DRILLER: Cascade	SAND PACK: 19-23' (2 X12)

CASING ELEVATION	
SURVEY DATE:	
DTW:	

DESCRIPTION/LOGGED BY: Corvi Katsaros

WELL/BORING COMPLETION	FIRST ▽	STABILIZED ▼	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	DESCRIPTION
Concrete						1			SM		ASPHALT SILTY SAND: gray; 5-10% silt; 75% fine grained sand; 10-15% gravel and cobbles.
						2					
						3					
						4					
			MST	180	3 3 3	5			CL		CLAY: light blue gray; iron stain; moderate plasticity; small lense interbed with
						6			SM		SILTY SAND: 20% silt; 80% very fine grained sand; loose.
						7					
						8					
						9					
Bentonite	▽		WET	1076	6 5 5	10			SM		
						11					6" SILTY SAND: gray; 15% silt; 85% fine grained sand. 6" CLAYEY SILTY SAND: 30% fines; 70% very fine grained sand; low plasticity; medium dense.
						12					
						13					
						14					
			WET	925	14 15 19	15			SM		SILTY SAND: dark gray; 20% silt; 80% very fine grained sand; dense.
						16					
						17					
						18					
						19					
Sand			WET	210	9 22 25	20			SM		SILTY SAND: dark gray; 10% silt; 60% fine grained sand; 20% medium grained sand; very dense with a 2" layer of clay: medium gray; moderate plasticity at bottom of sample; very dense.
						21					
						22					

WELL/BORING LOCATION MAP



Delta Environmental Consultants, Inc.

WELL/BORING: AS-6

INSTALLATION DATE: 9/23/03	DRILLING METHOD: Hollow Stem Auger
PROJECT: AM00-510-V.M092	SAMPLING METHOD: DM Split Spoon
CLIENT: ARCO 5544	BORING DIAMETER: 2 "
LOCATION: 19918 68th Ave. South	BORING DEPTH: 23"
CITY: Kent	WELL CASING: SCH 40 PVC/SS
STATE: WA	WELL SCREEN: 21-23' (SS)
DRILLER: Cascade	SAND PACK: 19-23' (2 X12)

CASING ELEVATION	
SURVEY DATE:	
DTW:	

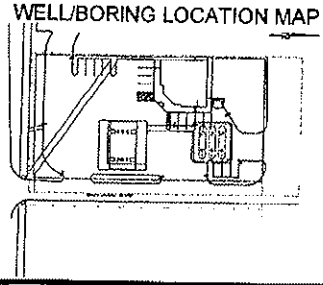
DESCRIPTION/LOGGED BY: Corvi Katsaros

WELL/BORING COMPLETION	FIRST ▽	STABILIZED ▼	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	
						1					ASPHALT
						2			SM		SILTY SAND: gray; 5-15% silt; 35% fine grained sand; 40% medium grained sand; 15-20% cobbles and gravel, roots.
						3					
						4					
			MST	263	5 12 12	5					6" SAME AS ABOVE: 10% coarse sand; increasing gravel; very stiff.
						6			CL		3" SILTY CLAY: light gray; 60% clay; 40% silt; trace fine grained sand iron staining; low plasticity.
						7			SM		3" SILTY SAND: gray; 5-15% silt; 85-95% fine grained sand; medium dense.
						8					
						9					
	▽		MST WET	2000	7 8 7	10			SM		8" SILTY SAND: gray; 10% silt; 80% fine grained sand; 10% gravels; medium dense.
						11					2" SILTY SAND: gray; 10% silt; 90% very fine grained sand.
						12					
						13					
						14					
			WET	1394	16 19 22	15			SM		SILTY SAND: same as above; very dense.
						16					
						17					
						18					
						19					
			WET	905	5 7 9	20			SM		SILTY SAND: dark gray; 10% silt; 30% fine grained sand; 60% medium grained sand; clay lenses, gray with moderate plasticity; medium dense.
						21					
						22					

Bentonite

Sand

WELL/BORING LOCATION MAP



Delta Environmental Consultants, Inc.

WELL/BORING: AS-7

INSTALLATION DATE: 9/23/03	DRILLING METHOD: Hollow Stem Auger
PROJECT: AM00-510-V.M092	SAMPLING METHOD: DM Split Spoon
CLIENT: ARCO 5544	BORING DIAMETER: 2 "
LOCATION: 19918 68th Ave. South	BORING DEPTH: 23"
CITY: Kent	WELL CASING: SCH 40 PVC/SS
STATE: WA	WELL SCREEN: 19-22' (SS)
DRILLER: Cascade	SAND PACK: 18-22' (2 X12)

CASING ELEVATION	
SURVEY DATE:	
DTW:	

DESCRIPTION/LOGGED BY: Corvi Katsaros

WELL/BORING COMPLETION	FIRST ▽	STABILIZED ▼	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	DESCRIPTION
						1					ASPHALT
						2			SM		SILTY SAND: gray; 5-15% silt; 35% fine grained sand; 45% medium grained sand; 15% cobbles; gravel.
						3					
						4			SM		
			MST	29	3 4 6	5					SILTY SAND: same as above.
						6			CL		SILTY CLAY: light gray; 40% silt; 60% clay; trace fine grained sand in parts, iron staining, low to moderate plasticity; stiff.
						7					
						8					
						9					
Bentonite	▽		WET	336	8 8 5	10					6" SILTY CLAY: light gray; 40% silt; 60% clay; trace to 15% fine grained sand; iron stain; low to moderate plasticity.
						11					
						12			SM		6" SILTY SAND: gray; 5% silt; 95% very fine grained sand; medium dense.
						13					
						14					
			WET	152	12 14 13	15			SM		SILTY SAND: 5-20% silt with, clay lenses; 80-95% very fine grained sand; trace fine grained sand; very dense.
						16					
						17					
						18					
Sand						19					
			WET	21	15 13 14	20			SM		SILTY SAND: medium gray; 10% silt; 30% fine grained sand; 60% medium grained sand; inter layered with fine lenses of clay with trace fine grained sand, and moderate plasticity; very dense.
						21					
						22					

Date Start/Finish: 11/16/2011 to 11/17/2011
Drilling Company: Cascade Drilling LP.
Driller's Name:
Drilling Method: Hollow Stem Auger
Auger Size: 8 inch OD
Rig Type: CME - 75
Sampling Method: 1.5 ft. by 2 inch Split Spoon

Northing: NM
Easting: NM
Casing Elevation: NM

Borehole Depth: 21 ft bgs
Surface Elevation: NM

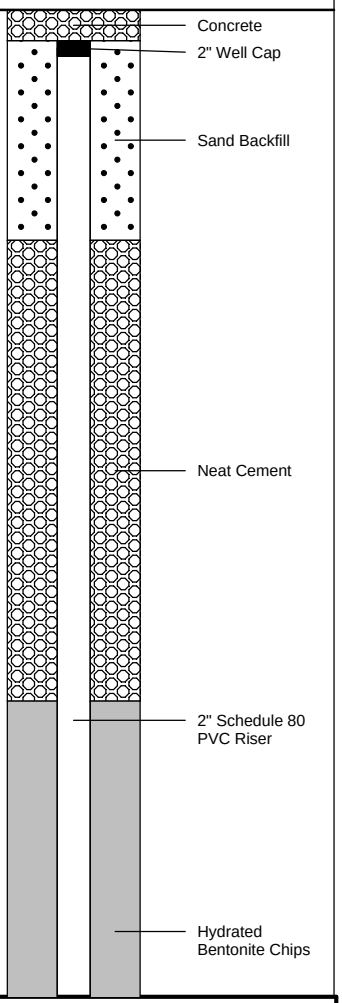
Descriptions By: Eric Epple

Well/Boring ID: **AS-8**

Client: BP West Coast Products, LLC.

Location: WA-5544
19918 68th Avenue South
Kent, Washington

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N-Value	PID Headspace (ppm)	Analytical Sample	USCS Code	Geologic Column	Stratigraphic Description
0	0										
											Asphalt and Aggregate
		AK	3-3.5	NA	AK		1.9		CL		Silty Sandy CLAY with some Gravel, low plasticity, stiff, moist.
5	-5	AK	5-5.5	NA	AK		12.4		CL		Silty Sandy CLAY with some Gravel, low plasticity, stiff, moist.
		AK	7-7.5	NA	AK		1147		ML		Sandy SILT, stiff, no plasticity, slight odor, moist.
10	-10	1	10-11.5	1.5	2 1 1	3	1770		ML		Clayey SILT, medium stiff, low plasticity, grey, moist.



Well/Boring Construction

ARCADIS
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Remarks: AK = Air Knife
bgs = below ground surface
ft. = feet
NM = Not Measured
OD = Outer Diameter
PVC = Polyvinyl Chloride

Date Start/Finish: 11/16/2011 to 11/17/2011
Drilling Company: Cascade Drilling LP.
Driller's Name:
Drilling Method: Hollow Stem Auger
Auger Size: 8 inch OD
Rig Type: CME - 75
Sampling Method: 1.5 ft. by 2 inch Split Spoon

Northing: NM
Easting: NM
Casing Elevation: NM

Borehole Depth: 21 ft bgs
Surface Elevation: NM

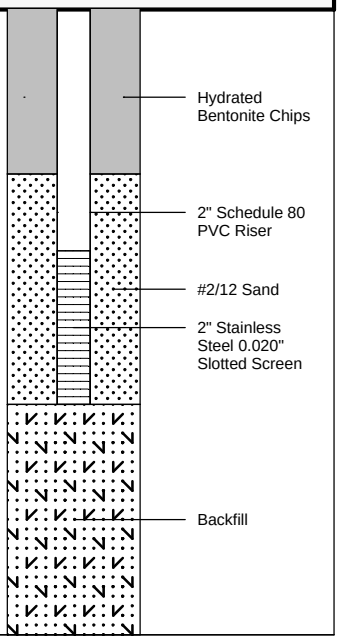
Descriptions By: Eric Epple

Well/Boring ID: **AS-8**

Client: BP West Coast Products, LLC.

Location: WA-5544
19918 68th Avenue South
Kent, Washington

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N-Value	PID Headspace (ppm)	Analytical Sample	USCS Code	Geologic Column	Stratigraphic Description
15	-15	2	15-16.5	1.5	5 7 8	15	20.0		SM		Silty SAND, fine to medium grain, poorly graded, sub-angular, greyish brown, moist to wet.
		3	18-19.5	1.5	1 3 4	7	3.0		CL		CLAY, medium to high plasticity, stiff to soft, grey, moist.
20	-20	4	19.5-21.0	1.5	2 5 7	12	3.4		SP		SAND, medium grading, very loose, fine to medium grain, black, wet.



Well/Boring Construction

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Remarks: AK = Air Knife
bgs = below ground surface
ft. = feet
NM = Not Measured
OD = Outer Diameter
PVC = Polyvinyl Chloride

Date Start/Finish: 11/16/2011
Drilling Company: Cascade Drilling LP.
Driller's Name:
Drilling Method: Hollow Stem Auger
Auger Size: 8 inch OD
Rig Type: CME - 75
Sampling Method: 1.5 ft. by 2 inch Split Spoon

Northing: NM
Easting: NM
Casing Elevation: NM

Borehole Depth: 21 ft bgs
Surface Elevation: NM

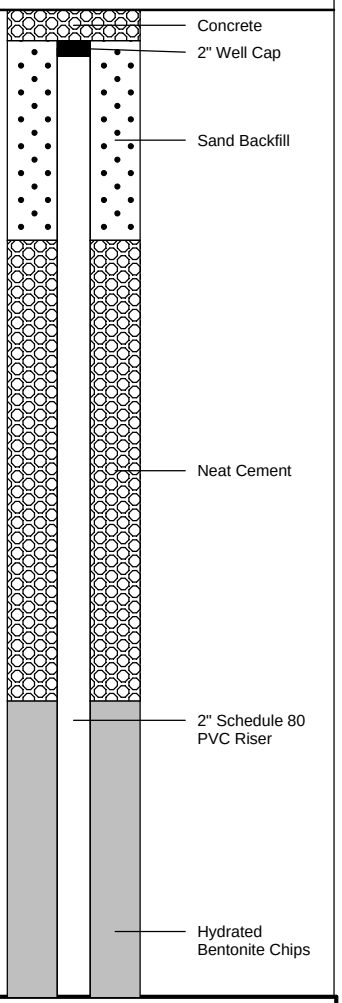
Descriptions By: Eric Epple

Well/Boring ID: **AS-9**

Client: BP West Coast Products, LLC.

Location: WA-5544
19918 68th Avenue South
Kent, Washington

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N-Value	PID Headspace (ppm)	Analytical Sample	USCS Code	Geologic Column	Stratigraphic Description
0	0										
											Asphalt and Aggregate
		AK	3-3.5	NA	AK		61.0		CL		Silty Sandy CLAY with trace Gravel, low to medium plasticity, moist.
5	-5	AK	5-5.5	NA	AK		73.9		CL		Silty Sandy CLAY with trace Gravel, low to medium plasticity, moist.
		AK	7-7.5	NA	AK		1547		SM		Silty Sand with trace fine to coarse Gravel, loose, fine grain, poorly graded, dark grey, moist to damp.
10	-10	1	10-11.5	1.5	1 2 1	3	394		ML		SILT, stiff, no plasticity, grey, moist.
									ML		Clayey SILT, low plasticity, soft, moist to wet.



Well/Boring Construction

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Remarks:
AK = Air Knife
bgs = below ground surface
ft. = feet
NM = Not Measured
OD = Outer Diameter
PVC = Polyvinyl Chloride

Date Start/Finish: 11/16/2011
Drilling Company: Cascade Drilling LP.
Driller's Name:
Drilling Method: Hollow Stem Auger
Auger Size: 8 inch OD
Rig Type: CME - 75
Sampling Method: 1.5 ft. by 2 inch Split Spoon

Northing: NM
Easting: NM
Casing Elevation: NM

Borehole Depth: 21 ft bgs
Surface Elevation: NM

Descriptions By: Eric Epple

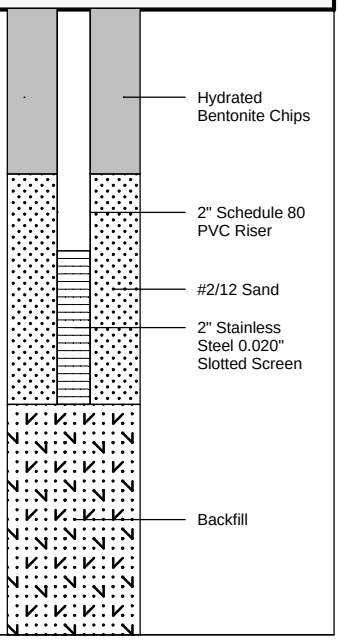
Well/Boring ID: **AS-9**

Client: BP West Coast Products, LLC.

Location: WA-5544
19918 68th Avenue South
Kent, Washington

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N-Value	PID Headspace (ppm)	Analytical Sample	USCS Code	Geologic Column	Stratigraphic Description
15	-15	2	15-16.5	1.5	2 3 7	10	8.0		SM		SILT with some fine SAND, no plasticity, stiff, wet.
		3	18-19.5	1.5	5 5 3	8	40.7		SM		SAND with trace Silt, loose, fine grain, poorly graded, brown, wet.
		4	19.5-21.0	1.5	2 5 7	12	28.2		SM		
20	-20								CL		CLAY, medium to high plasticity, stiff, dark grey, moist to wet.
									SM		Sandy SILT, no plasticity, stiff, wet.

Well/Boring Construction



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Remarks: AK = Air Knife
bgs = below ground surface
ft. = feet
NM = Not Measured
OD = Outer Diameter
PVC = Polyvinyl Chloride

Date Start/Finish: 11/16/2011
Drilling Company: Cascade Drilling LP.
Driller's Name:
Drilling Method: Hollow Stem Auger
Auger Size: 8 inch OD
Rig Type: CME - 75
Sampling Method: 1.5 ft. by 2 inch Split Spoon

Northing: NM
Easting: NM
Casing Elevation: NM

Borehole Depth: 22.5 ft bgs
Surface Elevation: NM

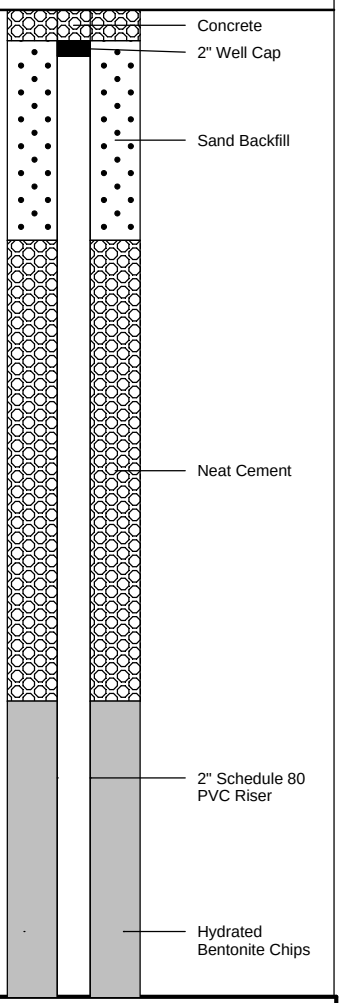
Descriptions By: Eric Epple

Well/Boring ID: **AS-10**

Client: BP West Coast Products, LLC.

Location: WA-5544
19918 68th Avenue South
Kent, Washington

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N-Value	PID Headspace (ppm)	Analytical Sample	USCS Code	Geologic Column	Stratigraphic Description
0	0										
											Asphalt and Aggregate
		AK	3-3.5	NA	AK		5.9		SM		Sandy SILT with little Gravel (fine pebbles to medium cobbles), soft to stiff, no plasticity, grey, moist.
5	-5	AK	5-5.5	NA	AK		16.4		SM		Sandy SILT with some Clay and little Gravel (fine pebbles to medium cobbles), soft to stiff, no plasticity, grey, moist.
		AK	7-7.5	NA	AK		1116		SM		Sandy SILT with some Clay and little Gravel (fine pebbles to medium cobbles), soft to stiff, no plasticity, grey, moist.
10	-10	1	10-11.5	1.5	2 1 1	2	315		ML		SILT with trace Clay and fine Sand, no plasticity, very soft, grey, wet.



Well/Boring Construction

Remarks:
AK = Air Knife
bgs = below ground surface
ft. = feet
NM = Not Measured
OD = Outer Diameter
PVC = Polyvinyl Chloride

ARCADIS
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Project Number:GP09BPNA.WA39.K0000
Data File:
Date: 4/24/2012
Created/Edited by:EE

Date Start/Finish: 11/16/2011
Drilling Company: Cascade Drilling LP.
Driller's Name:
Drilling Method: Hollow Stem Auger
Auger Size: 8 inch OD
Rig Type: CME - 75
Sampling Method: 1.5 ft. by 2 inch Split Spoon

Northing: NM
Easting: NM
Casing Elevation: NM

Borehole Depth: 22.5 ft bgs
Surface Elevation: NM

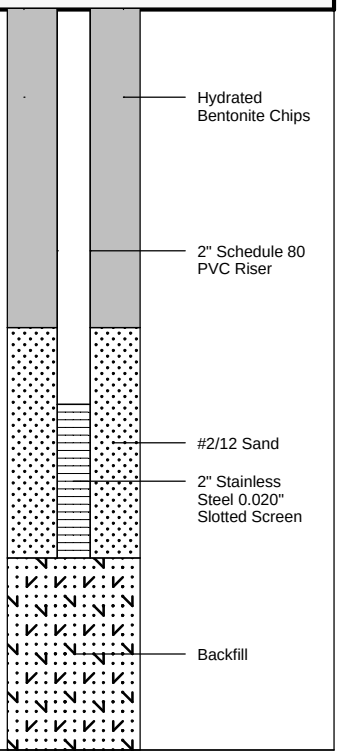
Descriptions By: Eric Epple

Well/Boring ID: **AS-10**

Client: BP West Coast Products, LLC.

Location: WA-5544
19918 68th Avenue South
Kent, Washington

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N-Value	PID Headspace (ppm)	Analytical Sample	USCS Code	Geologic Column	Stratigraphic Description
15	-15	2	15-16.5	1.5	6 7 8	15	199		SM		Sandy SILT with some Clay, no plasticity, very soft, grey, wet.
									SP		SAND, loose, fine to medium grain, medium grading, wet.
		3	18-19.5	1.5	4 1 2	3	12.3		SM		Silty SAND, loose, fine grain, well graded, grey, wet.
20	-20	4	19.5-21.0	1.5	2 2 3	5	1.9		CL		CLAY with trace Silt, medium to high plasticity, stiff, brown, moist.
		5	21-22.5	1.5	2 3 3	6	1.7		SM		Silty SAND, dense, fine grain, dark grey, wet.



Well/Boring Construction

ARCADIS
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Remarks: AK = Air Knife
bgs = below ground surface
ft. = feet
NM = Not Measured
OD = Outer Diameter
PVC = Polyvinyl Chloride

Date Start/Finish: 11/16/2011
Drilling Company: Cascade Drilling LP.
Driller's Name:
Drilling Method: Hollow Stem Auger
Auger Size: 8 inch OD
Rig Type: CME - 75
Sampling Method: 1.5 ft. by 2 inch Split Spoon

Northing: NM
Easting: NM
Casing Elevation: NM

Borehole Depth: 24.5 ft bgs
Surface Elevation: NM

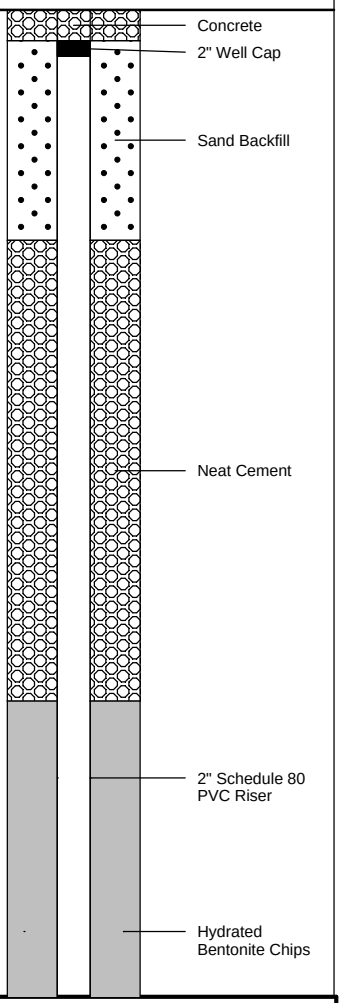
Descriptions By: Eric Epple

Well/Boring ID: **AS-11**

Client: BP West Coast Products, LLC.

Location: WA-5544
19918 68th Avenue South
Kent, Washington

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N-Value	PID Headspace (ppm)	Analytical Sample	USCS Code	Geologic Column	Stratigraphic Description
0	0										
											Asphalt and Aggregate
											Gravelly Silty SAND, dense, fine to coarse grain, well graded, brown, moist.
		AK	3-3.5	NA	AK		0.1		CL		Sandy Gravelly CLAY with little Silt, stiff, low to medium plasticity, dark brown, damp.
5	-5	AK	5-5.5	NA	AK		0.5		CL		Silty CLAY with little Gravel and Sand, stiff, medium to high plasticity, brown, damp.
		AK	7-7.5	NA	AK		0.0		CL		Silty CLAY with little Gravel and Sand, stiff, medium to high plasticity, brown, damp.
10	-10	1	10-11.5	1.5	3 1 1	2	0.9		ML		SILT with trace Sand and Clay, very soft to soft, dark grey, moist to wet.



Well/Boring Construction

Remarks:
AK = Air Knife
bgs = below ground surface
ft. = feet
NM = Not Measured
OD = Outer Diameter
PVC = Polyvinyl Chloride

ARCADIS
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Project Number:GP09BPNA.WA39.K0000
Data File:
Date: 4/24/2012
Created/Edited by:EE

Date Start/Finish: 11/16/2011
Drilling Company: Cascade Drilling LP.
Driller's Name:
Drilling Method: Hollow Stem Auger
Auger Size: 8 inch OD
Rig Type: CME - 75
Sampling Method: 1.5 ft. by 2 inch Split Spoon

Northing: NM
Easting: NM
Casing Elevation: NM

Borehole Depth: 24.5 ft bgs
Surface Elevation: NM

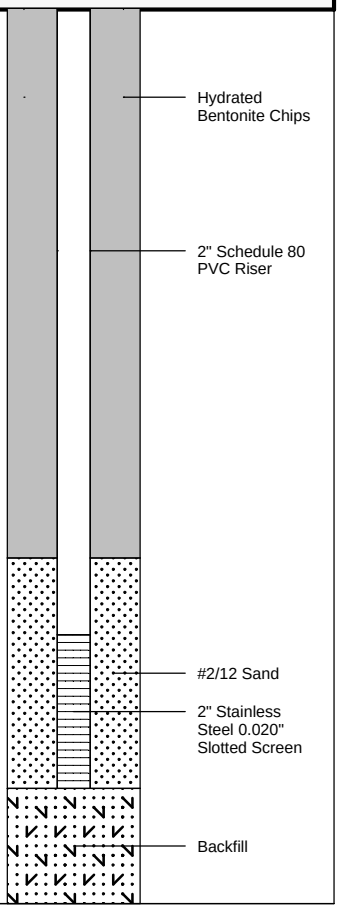
Descriptions By: Eric Epple

Well/Boring ID: **AS-11**

Client: BP West Coast Products, LLC.

Location: WA-5544
19918 68th Avenue South
Kent, Washington

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N-Value	PID Headspace (ppm)	Analytical Sample	USCS Code	Geologic Column	Stratigraphic Description
15	-15	2	15-16.5	1.5	5 7 10	17	0.9		ML		SILT with trace Sand and Clay, very soft to soft, dark grey, moist to wet.
									SM		Silty SAND, loose, fine to medium grain, medium grading, brown, wet.
20	-20	3	20-21.5	1.5	1 3 3	6	0.0		CL		CLAY, very high plasticity, moist.
									ML		SILT with little Sand, no plasticity, soft, dark grey, wet.
		4	21.5-23	1.5	3 7 7	14	0.2		SM		Silty SAND, loose, fine grain, poorly graded, dark grey, wet.
		5	23-24.5	1.5	3 2 3	5	0.3				



Well/Boring Construction

ARCADIS
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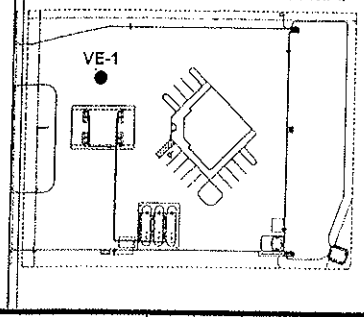
Remarks: AK = Air Knife
bgs = below ground surface
ft. = feet
NM = Not Measured
OD = Outer Diameter
PVC = Polyvinyl Chloride

WELL/BORING LOCATION MAP



Delta Environmental Consultan Inc.

WELL/BORING: VE-1

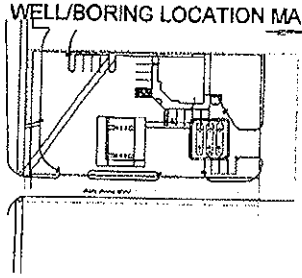
INSTALLATION DATE: 4/7/03	DRILLING METHOD: Hollow Stem Auger
PROJECT: AM00-510-U (ARCO 5544)	SAMPLING METHOD: DM Split Spoon
CLIENT: Atlantic Richfield Company	BORING DIAMETER: 8"
LOCATION: 19860 68th Avenue South	BORING DEPTH: 8'
CITY: Kent	WELL CASING: SCH 40 PVC 2"
STATE: WA	WELL SCREEN: 5 - 8' (0.010")
DRILLER: Cascade	SAND PACK: 3 - 8' (2 X12)

CASING ELEVATION	
SURVEY DATE:	
DTW:	Not Applicable

DESCRIPTION/LOGGED BY: Corvi Katsaros

WELL/BORING COMPLETION	FIRST ▽	STABILIZED ▼	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	
Concrete						0					Asphalt
Bentonite						1					
						2					
						3					
						4					
Sand			MST	7.1	1 6 8	5			SP		SAND: gray; medium to fines; trace gravel.
						6			SM		SILTY SAND: gray; moderate plasticity.
			WT	4.2	4 5 7	7			SP		SAND: gray; very fine; medium dense.
						8					
						9					
						10					
						11					
						12					
						13					
						14					
						15					
						16					
						17					
						18					
						19					
						20					
						21					
						22					

WELL/BORING LOCATION MAP



Delta Environmental Consultants, Inc.

WELL/BORING: SVE-2

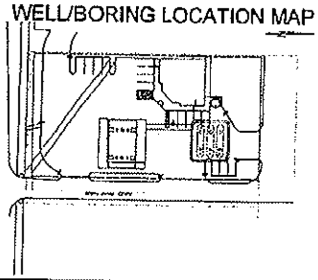
INSTALLATION DATE: 9/23/03	DRILLING METHOD: Hollow Stem Auger
PROJECT: AM00-510-V.M092	SAMPLING METHOD: DM Split Spoon
CLIENT: ARCO 5544	BORING DIAMETER: 2 "
LOCATION: 19918 68th Ave. South	BORING DEPTH: 11.5'
CITY: Kent	WELL CASING: SCH 40 PVC
STATE: WA	WELL SCREEN: 4-10'
DRILLER: Cascade	SAND PACK: 3-10' (2X12)

CASING ELEVATION	
SURVEY DATE:	
DTW:	

DESCRIPTION/LOGGED BY: Corvi Katsaros

WELL/BORING COMPLETION	FIRST	STABILIZED	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	
Bentonite						1					ASPHALT
						2					SILTY SAND: gray; 5-15% silt; 75-85% fine grained sand; 10% gravel; cobbles, trace roots.
						3					
						4			SM		
Sand			MST	137	5 2 8	5					SILTY SAND: medium gray; 15% silt; 65% fine grained sand; 20% medium grained sand.
						6					CLAYEY SANDY SILT: light gray; 60-70% silt; 10% clay; 10-30% fine grained sand; low to moderate plasticity in places; medium dense.
						7					
						8					
						9					
	▽		WET	2000	6 12 4	10			ML		CLAYEY SANDY SILT: gray; 60-80% silt; 0-25% clay; 10-30% fine grained sand; low to moderate plasticity in places; very stiff.
						11					
						12					
						13					
						14					
						15					
						16					
						17					
						18					
						19					
						20					
						21					
						22					

WELL/BORING LOCATION MAP



Delta Environmental Consultants, Inc.

WELL/BORING: SVE-3

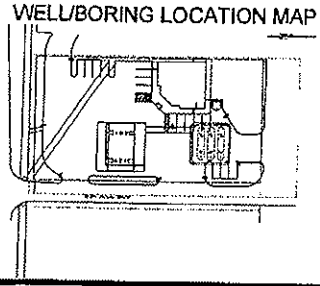
INSTALLATION DATE: 9/23/03	DRILLING METHOD: Hollow Stem Auger
PROJECT: AM00-510-V.M092	SAMPLING METHOD: DM Split Spoon
CLIENT: ARCO 5544	BORING DIAMETER: 2 "
LOCATION: 19918 68th Ave. South	BORING DEPTH: 11.5"
CITY: Kent	WELL CASING: SCH 40 PVC
STATE: WA	WELL SCREEN: 4-10'
DRILLER: Cascade	SAND PACK: 3-10' (2X12)

CASING ELEVATION:
SURVEY DATE:
DTW:
DESCRIPTION/LOGGED BY: Corvi Katsaros

WELL/BORING COMPLETION	FIRST ▽	STABILIZED ▼	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	USCS SYMBOL	DESCRIPTION
Concrete						0		ASPHALT
Bentonite						1		SILTY SAND: gray; 15% silt; 80% very fine grained sand; 5% cobbles; trace gravel.
Sand						4	SM	
Sand			MST	2000	6 10 12	5		SILTY SAND: medium gray; 10% silt; 90% very fine grained sand; medium dense.
	▽		MST WET	275	9 10 9	10		SILTY SAND: same as above.
						11	ML	SANDY CLAYEY SILT: gray; 85% fines; 15% very fine grained sand; low to moderate plasticity in places; very stiff.

Depth scale: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

WELL/BORING LOCATION MAP



Delta Environmental Consultants, Inc.

WELL/BORING: SVE-4

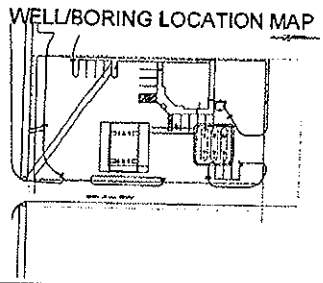
INSTALLATION DATE: 9/23/03	DRILLING METHOD: Hollow Stem Auger
PROJECT: AM00-510-V.M092	SAMPLING METHOD: DM Split Spoon
CLIENT: ARCO 5544	BORING DIAMETER: 2 "
LOCATION: 19918 68th Ave. South	BORING DEPTH: 11.5"
CITY: Kent	WELL CASING: SCH 40 PVC
STATE: WA	WELL SCREEN: 4-10'
DRILLER: Cascade	SAND PACK: 3-10' (2X12)

CASING ELEVATION	
SURVEY DATE:	
DTW:	

DESCRIPTION/LOGGED BY: Corvi Katsaros

WELL/BORING COMPLETION	FIRST	STABILIZED	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	DESCRIPTION
Bentonite						1					ASPHALT
						2					SILTY SAND: 5-15% silt; 65-75% sand; 20% cobbles and gravel; 1/2 foot mixed pea gravel and sand on top.
						3					
						4			SM		
			MST	2000	7	5					8" SILTY SAND: gray; 5-20% silt; 80-95% fine grained sand; medium dense.
					8	6					
Sand					7	7			ML		CLAYEY SILT: medium gray; 70-100% silt; 0-30% clay; iron stain, trace fine grained sand; low to moderate plasticity in places.
						8					
	▽					9					
			WET	2000	5	10			CL		2" SILTY CLAY: light gray; 40% silt; 60% clay; burnt organics; low to moderate plasticity.
					3				SM		6" SILTY SAND: gray.
					3	11			CL		6" CLAY: gray; low to moderate plasticity; stiff.
						12					
						13					
						14					
						15					
						16					
						17					
						18					
						19					
						20					
						21					
						22					

WELL/BORING LOCATION MAP



Delta Environmental Consultants, Inc.

WELL/BORING: SVE-5

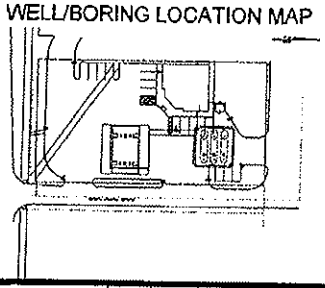
INSTALLATION DATE: 9/23/03	DRILLING METHOD: Hollow Stem Auger
PROJECT: AM00-510-V.M092	SAMPLING METHOD: DM Split Spoon
CLIENT: ARCO 5544	BORING DIAMETER: 2 "
LOCATION: 19918 68th Ave. South	BORING DEPTH: 11.5"
CITY: Kent	WELL CASING: SCH 40 PVC
STATE: WA	WELL SCREEN: 4-10'
DRILLER: Cascade	SAND PACK: 3-10' (2X12)

CASING ELEVATION	
SURVEY DATE:	
DTW:	

DESCRIPTION/LOGGED BY: Corvi Katsaros

WELL/BORING COMPLETION	FIRST	STABILIZED	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	DESCRIPTION
Bentonite						1					ASPHALT
Sand						2					SILTY SAND: 5% silt; 40% fine grained sand; 40% medium grained sand; 15% gravels and cobbles.
						3					
						4			SM		
			MST	1891	3 6 10	5					2" SILTY SAND: same as above.
						6			CL		8" CLAY: light gray with old tree roots and iron stain with a 1" layer of silty sand.
						7					SILTY SAND: gray; 15% silt; 85% very fine grained sand; medium dense.
						8					
						9					
	▽		MST WET	2000	8 5 5	10			SM		SILTY SAND: same as above; medium dense.
						11					
						12					
						13					
						14					
						15					
						16					
						17					
						18					
						19					
						20					
						21					
						22					

WELL/BORING LOCATION MAP



Delta Environmental Consultants, Inc.

WELL/BORING: SVE-6

INSTALLATION DATE: 9/23/03	DRILLING METHOD: Hollow Stem Auger
PROJECT: AM00-510-V.M092	SAMPLING METHOD: DM Split Spoon
CLIENT: ARCO 5544	BORING DIAMETER: 2 "
LOCATION: 19918 68th Ave. South	BORING DEPTH: 11.5"
CITY: Kent	WELL CASING: SCH 40 PVC
STATE: WA	WELL SCREEN: 4-10'
DRILLER: Cascade	SAND PACK: 3-10' (2X12)

CASING ELEVATION	
SURVEY DATE:	
DTW:	

DESCRIPTION/LOGGED BY: Corvi Katsaros

WELL/BORING COMPLETION	FIRST	STABILIZED	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	DESCRIPTION
Bentonite						1					ASPHALT SILTY SAND: 5% silt; 35% fine grained sand; 45% medium grained sand; 15% cobbles, roots.
						2					
						3					
						4			SM		
					3	5					SILTY SAND: same as above.
					3	6			CL		SILTY CLAY: light gray; 40% silt; 60% clay; trace fine grained sand; iron stain; low to moderate plasticity.
Sand					5	7					3" SILTY SAND: gray; 5% silt; 95% very fine grained sand; stiff.
						8			SM		
						9					
	▽		WET		6	10					SILTY SAND: same as above; medium dense.
					7	11					
					10	12					
						13					
						14					
						15					
						16					
						17					
						18					
						19					
						20					
						21					
						22					

Date Start/Finish: 7/20/2010 - 7/20/2010
Drilling Company: Cascade Drilling
Driller's Name: NA
Drilling Method: Hand Auger
Sampling Method: Encores and Glass Jars
Rig Type: Stainless Steel 2' Auger

Northing: NA
Easting: NA
Casing Elevation: NA

Borehole Depth: 5' bgs
Surface Elevation: NA

Descriptions By: Richard Rodriguez

Well/Boring ID: AUS-HB-1

Client: Former ARCO Facility 5544, A BP Company

Location: 19918 68th Ave S Kent, WA

DEPTH	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
0							
		0.0		GP		Asphalt surface.	
						SANDY GRAVEL, till, grey, moist, loose	
	NA	0.0					
		0.0					Borehole backfilled with Bentonite to grade.
	NA	0.0	X	SM		SILTY SAND, grey, moist, soft, odor present	
5	NA	0.0	X	ML		SANDY SILT, loose, soft, moist, slight odor	
10							
15							

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Analytical sample collected from 3.5' and 5'

Date Start/Finish: 7/20/2010 - 7/20/2010
Drilling Company: Cascade Drilling
Driller's Name: NA
Drilling Method: Hand Auger
Sampling Method: Encores and Glass Jars
Rig Type: Stainless Steel 2' Auger

Northing: NA
Easting: NA
Casing Elevation: NA

Borehole Depth: 5' bgs
Surface Elevation: NA

Descriptions By: Richard Rodriguez

Well/Boring ID: AUS-HB-2

Client: Former ARCO Facility 5544, A BP Company

Location: 19918 68th Ave S Kent, WA

DEPTH	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
0						Asphalt surface.	
		0.0				SAND GRAVEL mix, dry, grey, loose, 1"-2" cobbles	
	NA	0.0		SM		SILTY SAND, mix pebbles and cobbles, moist, brown	
		0.0				same as above w/ cobbles	Borehole backfilled with Bentonite to grade.
	NA	0.0	X				
						SANDY SILT, trace pebbles, soft, moist, brown with grey nodes	
5	NA	0.0	X	ML			
10							
15							

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Analytical sample collected from 3.5' and 5'

Appendix B

Groundwater Monitoring Field Data Sheet

WELL GAUGING DATA

Project # 250620-MH1 Date 6/20/25 Client ARCADIS

Site 1998 86TH AVE S, KENT, WA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-1	0644	2	-	-	-	-	DRY	7.25		
MW-2	0707	2	-	-	-	-	9.38	18.90		
MW-3	0712	2	-	-	-	-	8.77	19.13		
MW-4	0648	2	-	-	-	-	9.02	19.22		
MW-5	0704	2	-	-	-	-	9.83	19.04		
MW-6	0727	2	-	-	-	-	9.70	18.75		
MW-7	0654	2	-	-	-	-	8.70	15.90		
MW-9	0752	2	-	-	-	-	9.05	18.23		
MW-10	0724	2	-	-	-	-	9.38	18.79		
MW-11	0700	2	-	-	-	-	9.08	19.92		
MW-12	0739	2	ODOR	-	-	-	9.75	20.30		
MW-13	0731	2	-	-	-	-	9.66	20.10		
MW-14	0749	2	-	-	-	-	9.56	18.98		
MW-15	0744	2	-	-	-	-	10.21	19.03		
MW-16	0735	2	-	-	-	-	11.63	19.14		
MW-17	0718	2	-	-	-	-	9.51	18.80		

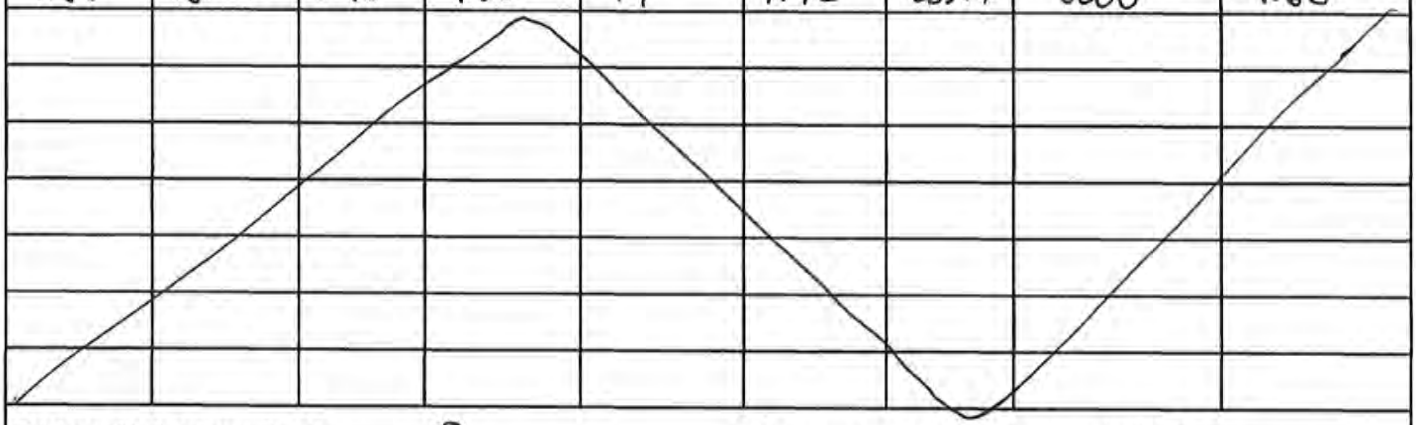
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250620-MH1	Client: ARCADIS
Sampler: MH	Gauging Date: 06/20/25
Well I.D.: MW-2	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 18.90	Depth to Water (ft.): 9.38
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	Flow Cell Type: HANNA

Purge Method: 2" Grundfos Pump (Peristaltic Pump) Bladder Pump
Sampling Method: Dedicated (Tubing) New Tubing Other ___

Start Purge Time: 1136 Flow Rate: 200 ML/MIN Pump Depth: 14'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or (mL))	Depth to Water (ft.)
1139	17.95	6.94	930	14	1.71	-280.8	600	9.55
1142	17.99	6.94	931	19	1.70	-283.1	1200	9.60
1145	18.26	6.95	932	20	1.70	-285.1	1800	9.61
1148	18.08	6.95	932	20	1.71	-285.5	2400	9.65
1151	18.00	6.95	932	19	1.72	-285.7	3000	9.68



Did well dewater? Yes (No)	Amount actually evacuated: 3000
Sampling Time: 1154	Sampling Date: 06/20/25
Sample I.D.: MW-2-W-20250620	Laboratory: PACE
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: SEE C.O.C
Equipment Blank I.D.: — @ Time —	Duplicate I.D.: —

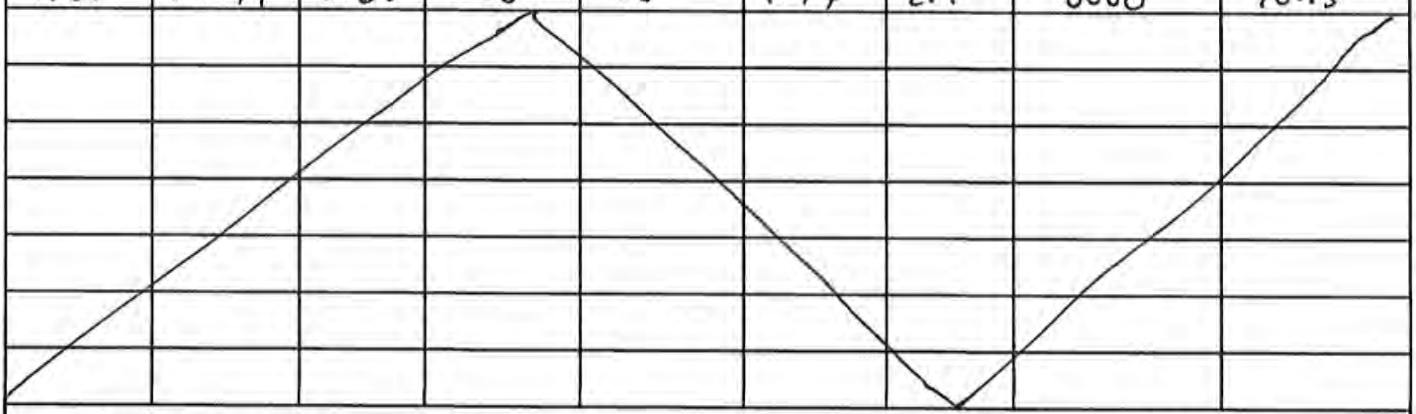
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250620-MH1	Client: ARCADIS
Sampler: MH	Gauging Date: 06/20/25
Well I.D.: MW-5	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 19.04	Depth to Water (ft.): 9.83
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	Flow Cell Type: HANNA

Purge Method: 2" Grundfos Pump (Peristaltic) Pump Bladder Pump
Sampling Method: Dedicated Tubing New Tubing Other ___

Start Purge Time: 0953 Flow Rate: 200 ML/MIN Pump Depth: 14.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0956	15.49	6.57	721	52	1.79	80.1	600	9.97
0959	15.78	6.59	722	53	1.78	53.2	1200	10.04
1002	15.83	6.62	726	52	1.77	10.4	1800	10.09
1005	15.93	6.64	727	49	1.77	6.2	2400	10.13
1008	15.99	6.65	728	50	1.77	2.1	3000	10.15



Did well dewater? Yes (No)	Amount actually evacuated: 3000
Sampling Time: 1011	Sampling Date: 06/20/25
Sample I.D.: MW-5-W-20250620	Laboratory: PACE
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: SEE C.O.C
Equipment Blank I.D.: — @ Time —	Duplicate I.D.: —

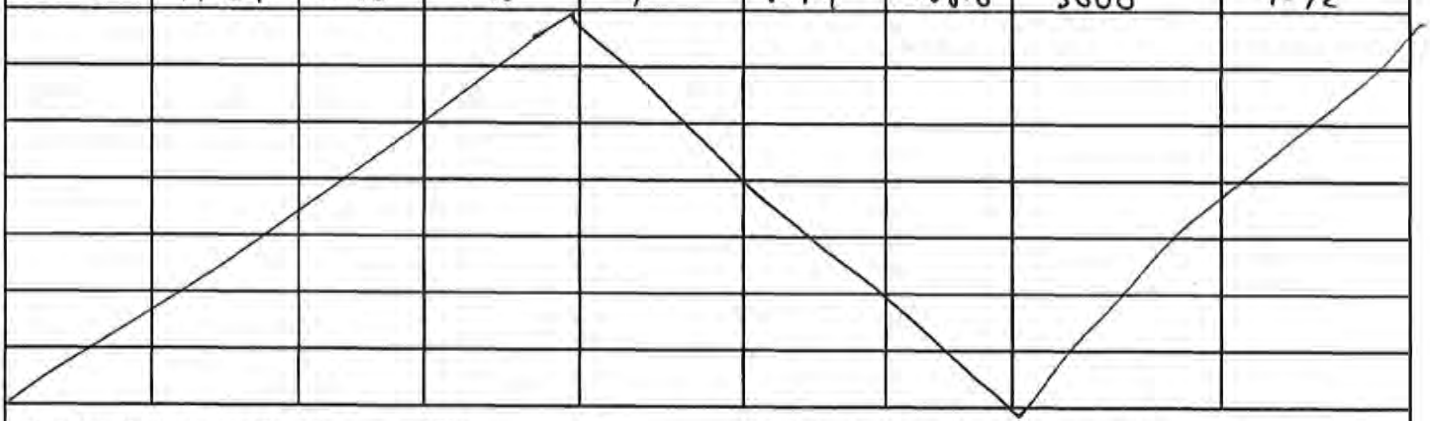
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250620-MH1	Client: ARCADIS
Sampler: MH	Gauging Date: 06/20/25
Well I.D.: MW-6	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 18.75	Depth to Water (ft.): 9.70
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	Flow Cell Type: HANNA

Purge Method: 2" Grundfos Pump (Peristaltic Pump) Bladder Pump
Sampling Method: Dedicated (Tubing) New Tubing Other ____

Start Purge Time: 1236 Flow Rate: 200 ML/MIN Pump Depth: 14.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL.)	Depth to Water (ft.)
1239	17.12	6.64	924	9	1.77	-237.6	600	9.76
1242	16.97	6.66	933	7	1.75	-248.7	1200	9.83
1245	17.00	6.68	940	7	1.74	-254.1	1800	9.88
1248	17.02	6.69	944	7	1.74	-256.6	2400	9.90
1251	17.04	6.70	946	7	1.74	-258.8	3000	9.92



Did well dewater? Yes (No)	Amount actually evacuated: 3000
Sampling Time: 1254	Sampling Date: 06/20/25
Sample I.D.: MW-6-W-20250620	Laboratory: PACE
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: SEE C-O-C
Equipment Blank I.D.: — @ Time —	Duplicate I.D.: —

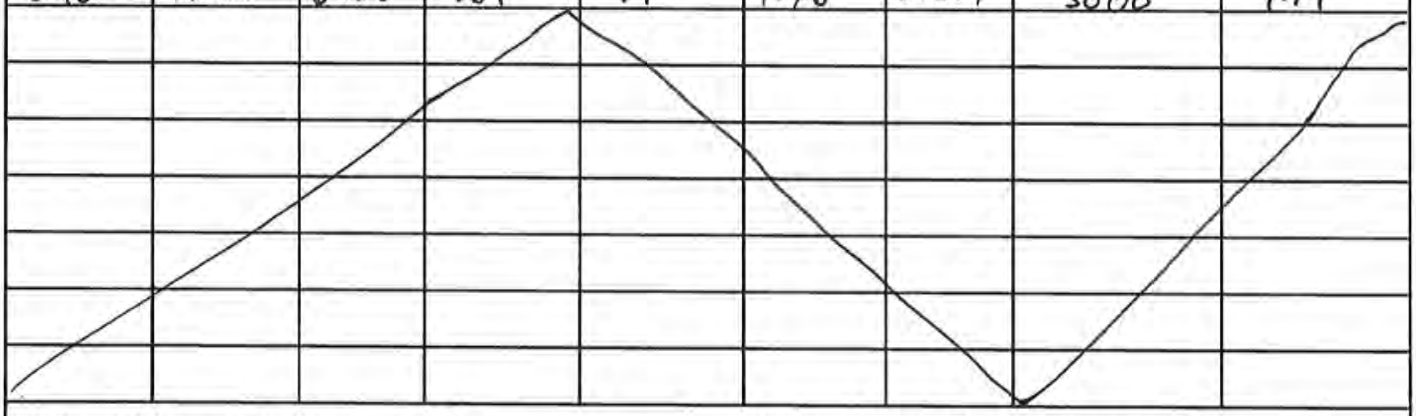
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250620-MH1	Client: ARCADIS
Sampler: MH	Gauging Date: 06/20/25
Well I.D.: MW-9	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 18.23	Depth to Water (ft.): 9.05
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	Flow Cell Type: HANNA

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other ___

Start Purge Time: 0848 Flow Rate: 200 ML/MIN Pump Depth: 13.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0851	15.82	6.60	462	15	1.77	210.6	600	9.06
0854	15.95	6.58	462	15	1.77	209.5	1200	9.09
0857	16.08	6.57	464	14	1.76	207.4	1800	9.11
0900	16.12	6.56	463	15	1.76	206.4	2400	9.13
0903	16.09	6.56	464	14	1.76	205.7	3000	9.14



Did well dewater? Yes (No)	Amount actually evacuated: 3000
Sampling Time: 0906	Sampling Date: 06/20/25
Sample I.D.: MW-9-W-20250620	Laboratory: PACE
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: SEE C.O.C
Equipment Blank I.D.: — @ Time —	Duplicate I.D.: —

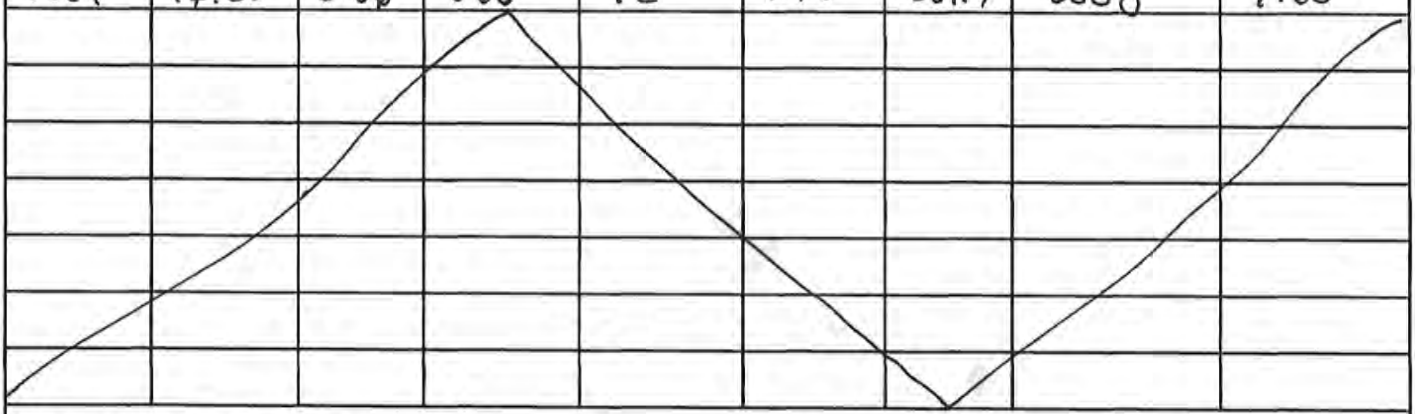
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250620-MH1	Client: ARCADIS
Sampler: MH	Gauging Date: 06/20/25
Well I.D.: MW-10	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 18.79	Depth to Water (ft.): 9.38
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	Flow Cell Type: HANNA

Purge Method: 2" Grundfos Pump (Peristaltic Pump) Bladder Pump
Sampling Method: Dedicated (Tubing) New Tubing Other ____

Start Purge Time: 1209 Flow Rate: 200 ML/MIN Pump Depth: 14'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or (mL))	Depth to Water (ft.)
1212	20.63	6.77	574	11	1.68	-244.5	600	9.42
1215	18.78	6.73	574	12	1.72	-242.1	1200	9.50
1218	17.49	6.63	569	12	1.75	-235.2	1800	9.52
1221	17.11	6.57	565	11	1.76	-232.0	2400	9.55
1224	17.26	6.56	566	12	1.76	-231.7	3000	9.60



Did well dewater? Yes (No)	Amount actually evacuated: 3000
Sampling Time: 1227	Sampling Date: 06/20/25
Sample I.D.: MW-10-W-20250620	Laboratory: PACE
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: SEE C.O.C
Equipment Blank I.D.: — @ Time —	Duplicate I.D.: —

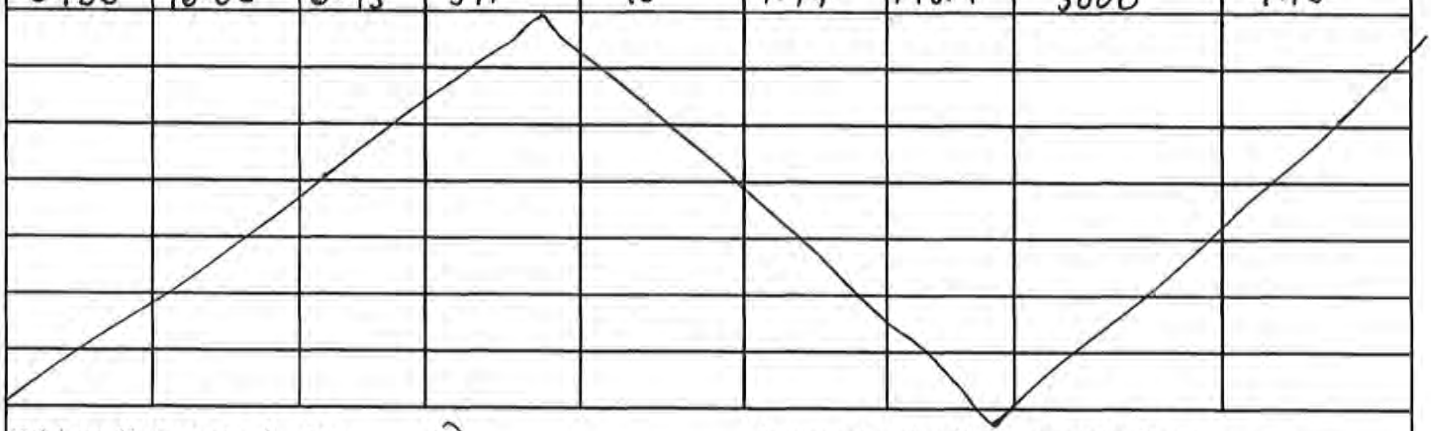
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250620-MH1	Client: ARCADIS
Sampler: MH	Gauging Date: 06/20/25
Well I.D.: MW-11	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 19.92	Depth to Water (ft.): 9.08
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	Flow Cell Type: HANNA

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other ___

Start Purge Time: 0921 Flow Rate: 200 ML/MIN Pump Depth: 14.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL.)	Depth to Water (ft.)
0924	15.78	6.40	502	43	1.78	208.6	600	9.10
0927	15.96	6.41	507	45	1.77	204.5	1200	9.12
0930	15.92	6.43	510	44	1.77	201.8	1800	9.13
0933	15.96	6.42	510	43	1.77	200.5	2400	9.15
0936	16.02	6.43	511	40	1.77	198.9	3000	9.16



Did well dewater? Yes (No) Amount actually evacuated: 3000

Sampling Time: 0939 Sampling Date: 06/20/25

Sample I.D.: MW-11-W-20250620 Laboratory: PACE

Analyzed for: TPH-G BTEX MTBE TPH-D Other: SEE C.O.C

Equipment Blank I.D.: — @ Time — Duplicate I.D.: —

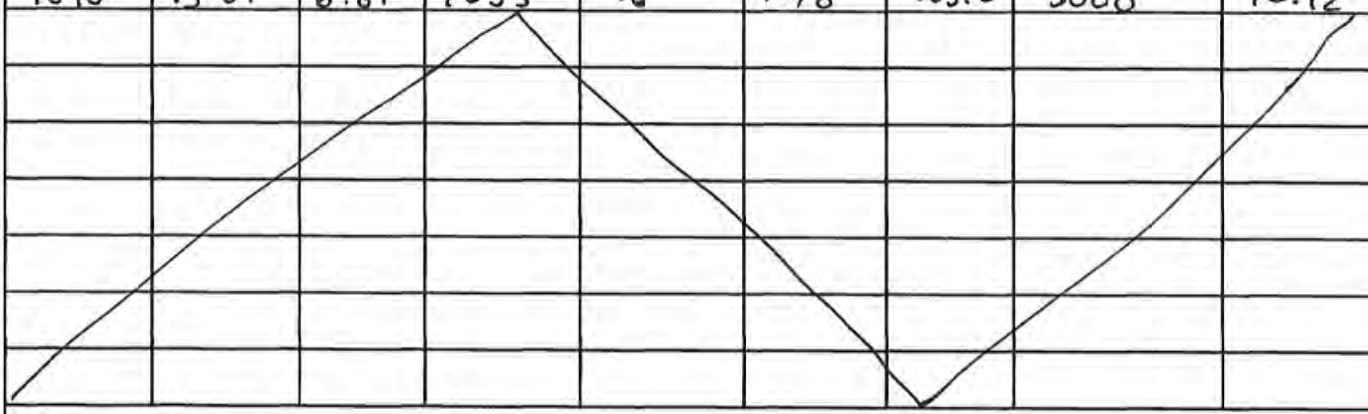
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250620-MH1	Client: ARCADIS
Sampler: MH	Gauging Date: 06/20/25
Well I.D.: MW-12	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 20.30	Depth to Water (ft.): 9.75
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	Flow Cell Type: HANNA

Purge Method: 2" Grundfos Pump (Peristaltic Pump) Bladder Pump
Sampling Method: Dedicated (Tubing) New Tubing Other ____

Start Purge Time: 1025 Flow Rate: 200 ML/MIN Pump Depth: 15'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1028	15.81	6.76	1023	10	1.77	-239.7	600	9.95
1031	16.15	6.78	1040	15	1.76	-249.7	1200	10.01
1034	15.94	6.80	1041	16	1.77	-255.2	1800	10.07
1037	15.85	6.80	1033	17	1.77	-261.2	2400	10.10
1040	15.81	6.81	1033	16	1.78	-263.2	3000	10.12



Did well dewater? Yes (No)	Amount actually evacuated: 3000
Sampling Time: 1043	Sampling Date: 06/20/25
Sample I.D.: MW-12-W-20250620	Laboratory: PACE
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: SEE C.O.C
Equipment Blank I.D.: — @ Time —	Duplicate I.D.: —

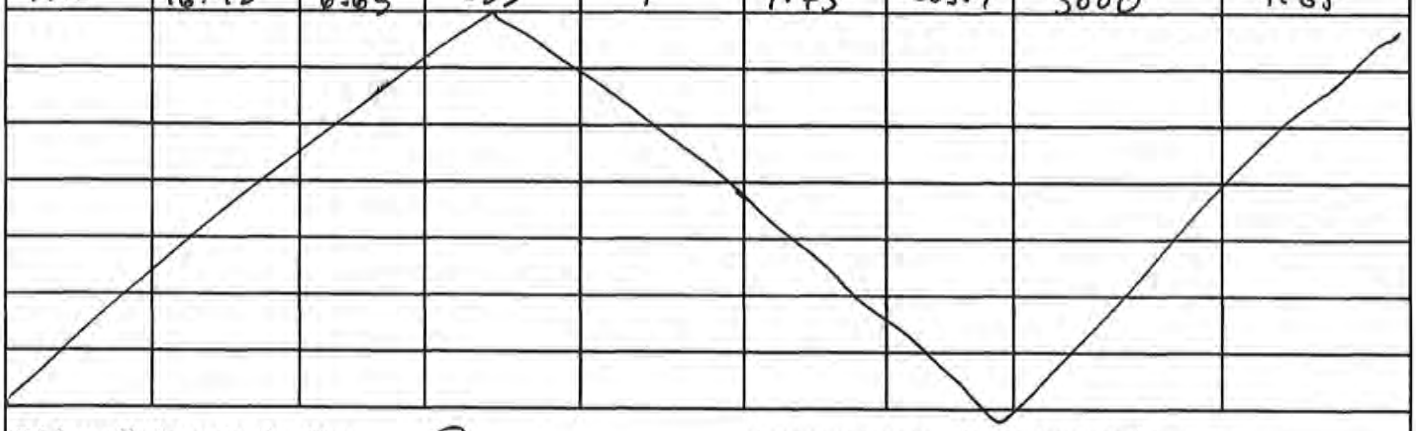
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250620-MH1	Client: ARCADIS
Sampler: MH	Gauging Date: 06/20/25
Well I.D.: MW-13	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 20.10	Depth to Water (ft.): 9.66
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	Flow Cell Type: HANNA

Purge Method: 2" Grundfos Pump (Peristaltic Pump) Bladder Pump
Sampling Method: (Dedicated) Tubing New Tubing Other ___

Start Purge Time: 1100 Flow Rate: 200 ML/MIN Pump Depth: 15'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or (mL))	Depth to Water (ft.)
1103	16.21	6.66	803	7	1.76	-259.8	600	9.70
1106	16.19	6.64	814	7	1.76	-260.4	1200	9.73
1109	16.25	6.63	823	7	1.75	-261.6	1800	9.77
1112	16.56	6.64	824	7	1.75	-262.4	2400	9.81
1115	16.42	6.63	823	7	1.75	-263.9	3000	9.85



Did well dewater? Yes (No) Amount actually evacuated: 3000

Sampling Time: 1118 Sampling Date: 06/20/25

Sample I.D.: MW-13-W-20250620 Laboratory: PACE

Analyzed for: TPH-G BTEX MTBE TPH-D Other: SEE C.O.C

Equipment Blank I.D.: — @ Time — Duplicate I.D.: —

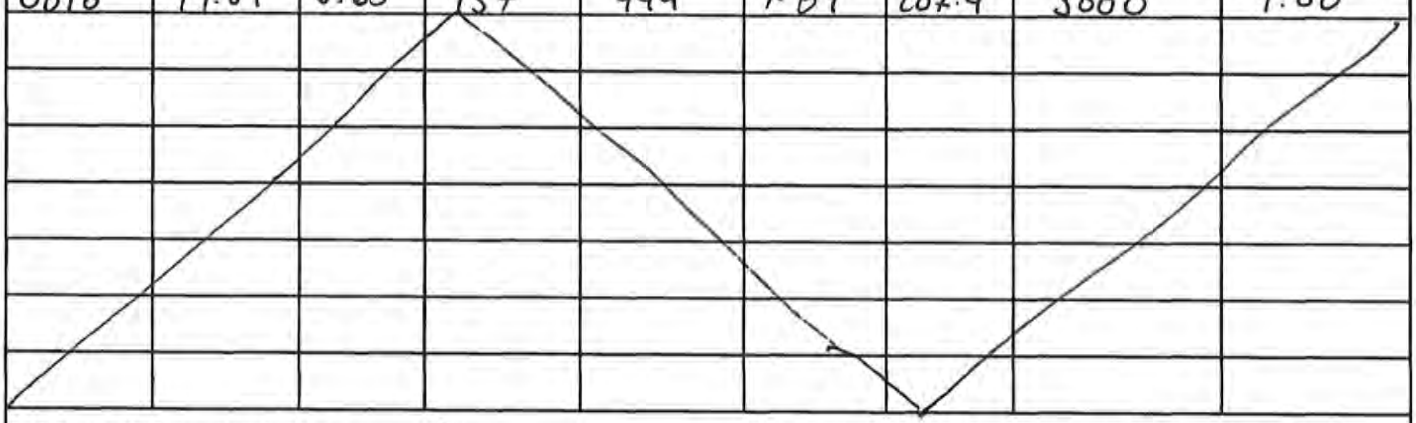
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250620-MH1	Client: ARCADIS
Sampler: MH	Gauging Date: 06/20/25
Well I.D.: MW-14	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 18.98	Depth to Water (ft.): 9.56
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	Flow Cell Type: HANNA

Purge Method: 2" Grundfos Pump (Peristaltic Pump) Bladder Pump
Sampling Method: Dedicated (Tubing) New Tubing Other ____

Start Purge Time: 0803 Flow Rate: 200 mL/MIN Pump Depth: 14.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or (mL))	Depth to Water (ft.)
0806	14.03	6.64	423	458	1.84	215.8	600	9.67
0809	14.17	6.65	426	467	1.84	211.5	1200	9.69
0812	14.06	6.66	431	460	1.84	209.6	1800	9.73
0815	14.10	6.66	434	457	1.84	208.7	2400	9.77
0818	14.09	6.65	437	444	1.84	207.4	3000	9.80



Did well dewater? Yes (No)	Amount actually evacuated: 3000
Sampling Time: 0821	Sampling Date: 06/20/25
Sample I.D.: MW-14-W-20250620	Laboratory: PACE
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: SEE C.O.C
Equipment Blank I.D.: — @ Time —	Duplicate I.D.: BD-1-20250620

Company Name/Address:
BPLAMP - Arcadis WA

6296 San Ignacio Ave
Suite C & D
San Jose. CA 95119

Billing Information:
ENFOS
1687 114th Ave SE
Suite 100
Bellvue, WA 98004

Pres Chk

Report to:
Lindsey Barger 408-398-1580

Email To: **lindsey.barger@arcadis.com**

Project Description:
5544 Kent

City/State Collected: KENT / WA

Please Circle: PT MT CT ET

Regulatory Program(DOD,RCRA,DW,etc):

Client Project #
30282114 Task: 19.21

Lab Project #
BPLAMPARCWA-5544

Collected by (print):
M. HILLER

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day ___ STD TAT

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Diss Pb 250mlHDPE-NoPres	NWTPH-DX w/SGT 40mlAmb-HCl-BT	NWTPH-DX w/o SGT 40mlAmb-HCl-BT	NWTPHGX 40mlAmb HCl	SV8011 40mlClr-NaThio	SV8011-EDB 40mlClr-NaThio	Total Pb 250mlHDPE-HNO3	V8260BTEX+EDC 40mlAmb-HCl			Remarks	Sample # (lab only)
MW-2-W-20250620	G	GW	–	6/20/25	1154	13	X	X	X	X		X	X	X				
MW-5-W-20250620		GW	–		1011	13	X	X	X	X		X	X	X				
MW-6-W-20250620		GW	–		1254	13	X	X	X	X		X	X	X				
MW-9-W-20250620		GW	–		0906	13	X	X	X	X		X	X	X				
MW-10-W-20250620		GW	–		1227	13	X	X	X	X		X	X	X				
MW-11-W-20250620		GW	–		0939	13	X	X	X	X		X	X	X				
MW-12-W-20250620		GW	–		1043	13	X	X	X	X		X	X	X				
MW-13-W-20250620		GW	–		1118	13	X	X	X	X		X	X	X				
MW-14-W-20250620		GW	–		0821	13	X	X	X	X		X	X	X				
BD-1-W-20250620		GW	–		1200	13	X	X	X	X		X	X	X				

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:HOLD PB Dissolved and NWTPHDXLVI w/SGT pending results

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier _____

Tracking #

Relinquished by : (Signature)

Date: 6/23/25

Time:

Received by: (Signature) SHIPPED VIA FEDEX

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Relinquished by : (Signature)

Date:

Time:

Received by: (Signature)

Temp: °C Bottles Received:

If preservation required by Login: Date/Time

Relinquished by : (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: Time:

Hold:

Condition: NCF / OK

Sample Receipt Checklist

COC Seal Present/Intact:	__NP __Y __N
COC Signed/Accurate:	__Y __N
Bottles arrive intact:	__Y __N
Correct bottles used:	__Y __N
Sufficient volume sent:	__Y __N
If Applicable	
VOA Zero Headspace:	__Y __N
Preservation Correct/Checked:	__Y __N
RAD Screen <0.5 mR/hr:	__Y __N

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG #

Table #

Acctnum: **BPLAMPARCWA**
Template:**T276092**
Prelogin: **P1160751**
PM: **4089 - Andi R Jones**
PB:

Shipped Via: **Client**

Company Name/Address:
BPLAMP - Arcadis WA

6296 San Ignacio Ave
Suite C & D
San Jose. CA 95119

Billing Information:
ENFOS
1687 114th Ave SE
Suite 100
Bellvue, WA 98004

Pres Chk

Report to:
Lindsey Barger 408-398-1580

Email To: **lindsey.barger@arcadis.com**

Project Description:
5544 Kent

City/State Collected: KENT / WA

Please Circle: (PT) MT CT ET

Regulatory Program(DOD,RCRA,DW,etc):

Client Project #
30282114 Task: 19.21

Lab Project #
BPLAMPARCWA-5544

Collected by (print):
M. HILLER

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day ___ STD TAT

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Diss Pb 250mlHDPE-NoPres	NWTPH-DX w/SGT 40mlAmb-HCl-BT	NWTPH-DX w/o SGT 40mlAmb-HCl-BT	NWTPHGX 40mlAmb HCl	SV8011 40mlClr-NaThio	SV8011-EDB 40mlClr-NaThio	Total Pb 250mlHDPE-HNO3	V8260BTEX+EDC 40mlAmb-HCl			Remarks	Sample # (lab only)
TB-1-20250620	G	GW	-	6/20/25	0900	2				X				X				
		GW																
		GW																
		GW																
		GW																
		GW																
		GW																
		GW																
		GW																

Chain of Custody Page 2 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG #

Table #

Acctnum: **BPLAMPARCWA**
Template:**T276092**
Prelogin: **P1160751**
PM: **4089 - Andi R Jones**
PB:

Shipped Via: **Client**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:HOLD PB Dissolved and NWTPHDXLVI w/SGT pending results

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	__NP	__Y __N
COC Signed/Accurate:		__Y __N
Bottles arrive intact:		__Y __N
Correct bottles used:		__Y __N
Sufficient volume sent:		__Y __N
If Applicable		
VOA Zero Headspace:		__Y __N
Preservation Correct/Checked:		__Y __N
RAD Screen <0.5 mR/hr:		__Y __N

Relinquished by : (Signature)	Date: 6/23/25	Time:	Received by: (Signature) SHIPPED VIA FEDEX	Trip Blank Received: Yes / No HCL / MeoH TBR	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: / Condition: NCF / OK

WELLHEAD INSPECTION FORM

Client: ARCADIS Site: 19918 68TH AVE S, KENT, WA Date: 6/20/25

Job #: 250620-MH1 Technician: MH Page 1 of 1

Well ID	Well Inspected - No Corrective Action Required	Check indicates deficiency: Cap non-functional	Lock non-functional	Lock missing	Bolts missing (list qty)	Tabs stripped (list qty)	Tabs broken (list qty)	Annular seal incomplete	Apron damaged	Rim / Lid broken	Trip Hazard	Below Grade	Other (explain in notes)	Well Not Inspected (explain in notes)	Notes (list if cap or lick replaced, if there are access issues associated with repairs, if traffic control is required, if stand pipe damaged, or any specific details not covered by checklist)
MW-1	X														
MW-2	X														
MW-3	X														
MW-4	X														
MW-5	X														
MW-6	X														
MW-7	X														
MW-9	X														
MW-10	X														
MW-11	X														
MW-12	X														
MW-13	X														
MW-14	X														
MW-15	X														
MW-16	X														
MW-17	X														

NOTES:

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME 19918 68TH AVE S, KENT				PROJECT NUMBER 250620-MH1			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
HANNA	07460041101	6/20/25 @ 0559	pH 4 7 10	5.97 7.02 9.93	✓	19.7	MH
			COND 3900 ORP 237.5 DO 100	3882 238.6 95	✓	20.0	MH

WORLD OIL BILL OF LADING

SOURCE RECORD **BILL OF LADING**

FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT WORLD OIL FACILITIES IN THE STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS IS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED BY BLAINE TECH SERVICES TO THEIR FACILITY IN SAN JOSE, CARSON AND SACRAMENTO CALIFORNIA.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BTS), 215 Clay St NW, Suite B-1, Auburn, WA (phone 206-348-8985). BLAINE TECH SERVICES, INC. is authorized by ARCADIS to recover, collect, apportion into loads, and haul the Non-Hazardous Well Purgewater that is drawn from wells at the BP ARCO facility indicated below and to deliver that purgewater to BTS. Transport routing of the Non-Hazardous Well Purgewater may be direct from one BP ARCO facility to BTS; from one BP ARCO facility to BTS via another BP ARCO facility; or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of BPARCO.

This **Source Record** **BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the BP ARCO facility described below:

Site Number / Name: 5544 /

19918	68TH AVE S	KENT	WA
street number	street name	city	state

WELL I.D.	GALS.	WELL I.D.	GALS.
MW-2	1	MW-4	1
MW-5	1		
MW-6	1		
MW-9	1		
MW-10	1		
MW-11	1		
MW-12	1		
MW-13	1		
added equip. rinse water	0.1	any other adjustments	—

TOTAL GALS. RECOVERED 9.1

loaded onto BTS vehicle # 144

BTS event # 250620-MH1 time 1330 date 6/20/25

signature

* *

REC'D AT AUBORN BTS time 1400 date 6/20/25

unloaded by signature

Appendix C

Groundwater Laboratory Analytical Report and Chain-of-Custody Documentation

ANALYTICAL REPORT

July 28, 2025

BPLAMP - Arcadis WA

Sample Delivery Group:	L1872575
Samples Received:	06/24/2025
Project Number:	30282114 Task: 19.21
Description:	5544 Kent
Site:	KENT, WA
Report To:	Lindsey Barger 6296 San Ignacio Ave Suite C & D San Jose, CA 95119

Entire Report Reviewed By:

Andi R Jones
Project Manager

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

MW-2-W-20250620 L1872575-01

Collected by: M. Hiller | Collected date/time: 06/20/25 11:54 | Received date/time: 06/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020B	WG2547172	1	07/01/25 10:05	07/15/25 22:00	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2546065	5	06/25/25 08:01	06/25/25 08:01	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2547486	1	06/26/25 14:18	06/26/25 14:18	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2550722	1	07/01/25 18:47	07/01/25 18:47	DYW	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG2546322	1	06/26/25 05:45	06/26/25 23:44	LJD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2552169	1	07/03/25 16:38	07/04/25 08:53	CAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-SGT	WG2562071	1	07/03/25 16:38	07/07/25 10:28	TJD	Mt. Juliet, TN

MW-5-W-20250620 L1872575-02

Collected by: M. Hiller | Collected date/time: 06/20/25 10:11 | Received date/time: 06/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020B	WG2547172	1	07/01/25 10:05	07/15/25 22:03	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2546065	1	06/25/25 05:52	06/25/25 05:52	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2547486	1	06/26/25 14:39	06/26/25 14:39	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2550722	1	07/01/25 19:07	07/01/25 19:07	DYW	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG2546322	1	06/26/25 05:45	06/26/25 23:55	LJD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2552169	1	07/03/25 16:38	07/04/25 09:33	CAH	Mt. Juliet, TN

MW-6-W-20250620 L1872575-03

Collected by: M. Hiller | Collected date/time: 06/20/25 12:54 | Received date/time: 06/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020B	WG2547172	1	07/01/25 10:05	07/15/25 22:07	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2546065	5	06/25/25 08:23	06/25/25 08:23	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2547486	1	06/26/25 15:00	06/26/25 15:00	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2550722	1	07/01/25 19:27	07/01/25 19:27	DYW	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG2546322	1.14	06/26/25 05:45	06/27/25 00:05	LJD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2552169	1	07/03/25 16:38	07/04/25 10:14	CAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-SGT	WG2562071	1	07/03/25 16:38	07/07/25 10:48	TJD	Mt. Juliet, TN

MW-9-W-20250620 L1872575-04

Collected by: M. Hiller | Collected date/time: 06/20/25 09:06 | Received date/time: 06/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020B	WG2547172	1	07/01/25 10:05	07/15/25 22:10	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2546065	1	06/25/25 06:13	06/25/25 06:13	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2547486	1	06/26/25 15:21	06/26/25 15:21	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2550722	1	07/01/25 19:47	07/01/25 19:47	DYW	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG2546322	1	06/26/25 05:45	06/27/25 00:15	LJD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2552169	1	07/03/25 16:38	07/04/25 10:54	CAH	Mt. Juliet, TN

MW-10-W-20250620 L1872575-05

Collected by: M. Hiller | Collected date/time: 06/20/25 12:27 | Received date/time: 06/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020B	WG2547172	1	07/01/25 10:05	07/15/25 22:20	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2546065	5	06/25/25 08:45	06/25/25 08:45	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2547486	1	06/26/25 15:41	06/26/25 15:41	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2550722	1	07/01/25 20:07	07/01/25 20:07	DYW	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG2546322	1	06/26/25 05:45	06/27/25 00:26	LJD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2552169	1	07/03/25 16:38	07/04/25 11:34	CAH	Mt. Juliet, TN

MW-11-W-20250620 L1872575-06

Collected by: M. Hiller | Collected date/time: 06/20/25 09:39 | Received date/time: 06/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020B	WG2547172	1	07/01/25 10:05	07/15/25 22:23	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2546065	1	06/25/25 06:35	06/25/25 06:35	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2547486	1	06/26/25 16:02	06/26/25 16:02	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2550722	1	07/01/25 20:27	07/01/25 20:27	DYW	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG2546322	1	06/26/25 05:45	06/27/25 01:07	LJD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2552169	1	07/03/25 16:38	07/04/25 12:14	CAH	Mt. Juliet, TN

MW-12-W-20250620 L1872575-07

Collected by: M. Hiller | Collected date/time: 06/20/25 10:43 | Received date/time: 06/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020B	WG2547172	1	07/01/25 10:05	07/15/25 22:26	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2546065	5	06/25/25 09:07	06/25/25 09:07	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2547486	1	06/26/25 16:23	06/26/25 16:23	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2550722	1	07/01/25 20:47	07/01/25 20:47	DYW	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG2546322	1.01	06/26/25 05:45	06/27/25 01:17	LJD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2552169	1	07/03/25 16:38	07/04/25 12:55	CAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-SGT	WG2562071	1	07/03/25 16:38	07/07/25 11:08	TJD	Mt. Juliet, TN

MW-13-W-20250620 L1872575-08

Collected by: M. Hiller | Collected date/time: 06/20/25 11:18 | Received date/time: 06/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020B	WG2547172	1	07/01/25 10:05	07/15/25 22:30	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2547938	1	06/27/25 05:02	06/27/25 05:02	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2547486	1	06/26/25 16:44	06/26/25 16:44	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2550722	1	07/01/25 21:07	07/01/25 21:07	DYW	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG2546322	1	06/26/25 05:45	06/27/25 01:28	LJD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2552169	1	07/03/25 16:38	07/04/25 13:35	CAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-SGT	WG2562071	1	07/03/25 16:38	07/07/25 11:28	TJD	Mt. Juliet, TN

MW-14-W-20250620 L1872575-09

Collected by: M. Hiller | Collected date/time: 06/20/25 08:21 | Received date/time: 06/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020B	WG2547172	1	07/01/25 10:05	07/15/25 22:33	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2547938	1	06/27/25 05:24	06/27/25 05:24	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2547486	1	06/26/25 17:05	06/26/25 17:05	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2550722	1	07/01/25 21:28	07/01/25 21:28	DYW	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG2546322	1	06/26/25 05:45	06/27/25 01:38	LJD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2552169	1	07/03/25 16:38	07/04/25 15:16	CAH	Mt. Juliet, TN

BD-1-W-20250620 L1872575-10

Collected by: M. Hiller | Collected date/time: 06/20/25 12:00 | Received date/time: 06/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020B	WG2547172	1	07/01/25 10:05	07/15/25 22:36	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2547938	1	06/27/25 05:46	06/27/25 05:46	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2547486	1	06/26/25 17:26	06/26/25 17:26	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2550722	1	07/01/25 21:48	07/01/25 21:48	DYW	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG2546322	1	06/26/25 05:45	06/27/25 01:48	LJD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2552169	1	07/03/25 16:38	07/04/25 15:56	CAH	Mt. Juliet, TN

TB-1-20250620 L1872575-11

Collected by: M. Hiller
Collected date/time: 06/20/25 09:00
Received date/time: 06/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2547938	1	06/27/25 02:24	06/27/25 02:24	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2547486	1	06/26/25 13:36	06/26/25 13:36	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2550722	1	07/01/25 18:07	07/01/25 18:07	DYW	Mt. Juliet, TN

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Andi R Jones
Project Manager

Project Comments

L1872575-01 NWTPHDX sample pH was recorded as 3
Samples L1872575 -01 & -03 were not preserved to a pH<2, although samples were received in the correct sample containers and preservative. The pH of both samples was 3.
EDB 8011 Samples L1872575-01 to -05 ran in a bracket with Work Group QC > (10) injections.
NWTPHGX samples ran in a bracket with Work Group QC > (10) injections..

Sample Delivery Group (SDG) Narrative

pH outside of method requirement.

Batch	Method	Lab Sample ID
WG2552169	NWTPHDX-NO SGT	L1872575-01, 03
WG2562071	NWTPHDX-SGT	L1872575-01, 03

Analyzed from headspace vial.

Batch	Method	Lab Sample ID
WG2550722	8260D	L1872575-11

Volatile Organic Compounds (GC) by Method NWTPHGX

The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG2546065	Gasoline Range Organics-NWTPH	L1872575-01, 03, 07

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Batch	Lab Sample ID	Analytes
WG2552169	(MSD) R4240569-4	Diesel Range Organics (DRO)

The associated batch QC was outside the established quality control range for precision.

Batch	Lab Sample ID	Analytes
WG2552169	(MSD) R4240569-4	Diesel Range Organics (DRO)

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-SGT

Surrogate recovery limits have been exceeded; values are outside lower control limits.

Batch	Analyte	Lab Sample ID
WG2562071	o-Terphenyl	(BLANK) R4247360-1

DETECTION SUMMARY

Volatile Organic Compounds (GC) by Method NWTPHGX

Client ID	Lab Sample ID	Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
MW-2-W-20250620	L1872575-01	Gasoline Range Organics-NWTPH	1460	B	500	5	06/25/2025 08:01	WG2546065
MW-6-W-20250620	L1872575-03	Gasoline Range Organics-NWTPH	3330	B	500	5	06/25/2025 08:23	WG2546065
MW-12-W-20250620	L1872575-07	Gasoline Range Organics-NWTPH	688	B	500	5	06/25/2025 09:07	WG2546065
MW-13-W-20250620	L1872575-08	Gasoline Range Organics-NWTPH	2630		100	1	06/27/2025 05:02	WG2547938

Volatile Organic Compounds (GC/MS) by Method 8260D

Client ID	Lab Sample ID	Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
MW-2-W-20250620	L1872575-01	Ethylbenzene	29.6		1.00	1	07/01/2025 18:47	WG2550722
MW-2-W-20250620	L1872575-01	Total Xylenes	3.64		3.00	1	07/01/2025 18:47	WG2550722
MW-6-W-20250620	L1872575-03	Benzene	1.17		1.00	1	06/26/2025 15:00	WG2547486
MW-6-W-20250620	L1872575-03	Ethylbenzene	9.98		1.00	1	07/01/2025 19:27	WG2550722
MW-6-W-20250620	L1872575-03	Total Xylenes	15.2		3.00	1	07/01/2025 19:27	WG2550722
MW-12-W-20250620	L1872575-07	Ethylbenzene	1.23		1.00	1	07/01/2025 20:47	WG2550722
MW-13-W-20250620	L1872575-08	Ethylbenzene	3.83		1.00	1	07/01/2025 21:07	WG2550722
MW-13-W-20250620	L1872575-08	Total Xylenes	28.6		3.00	1	07/01/2025 21:07	WG2550722

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Client ID	Lab Sample ID	Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
MW-2-W-20250620	L1872575-01	Diesel Range Organics (DRO)	929		200	1	07/04/2025 08:53	WG2552169
MW-2-W-20250620	L1872575-01	DRO/RRO (Total)	1090		200	1	07/04/2025 08:53	WG2552169
MW-6-W-20250620	L1872575-03	Diesel Range Organics (DRO)	1540		200	1	07/04/2025 10:14	WG2552169
MW-6-W-20250620	L1872575-03	Residual Range Organics (RRO)	407		250	1	07/04/2025 10:14	WG2552169
MW-6-W-20250620	L1872575-03	DRO/RRO (Total)	1950		200	1	07/04/2025 10:14	WG2552169
MW-10-W-20250620	L1872575-05	DRO/RRO (Total)	305		200	1	07/04/2025 11:34	WG2552169
MW-12-W-20250620	L1872575-07	Diesel Range Organics (DRO)	627		200	1	07/04/2025 12:55	WG2552169
MW-12-W-20250620	L1872575-07	DRO/RRO (Total)	733		200	1	07/04/2025 12:55	WG2552169
MW-13-W-20250620	L1872575-08	Diesel Range Organics (DRO)	1090		200	1	07/04/2025 13:35	WG2552169
MW-13-W-20250620	L1872575-08	DRO/RRO (Total)	1330		200	1	07/04/2025 13:35	WG2552169

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-SGT

Client ID	Lab Sample ID	Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
MW-6-W-20250620	L1872575-03	Diesel Range Organics (DRO)	324		200	1	07/07/2025 10:48	WG2562071
MW-6-W-20250620	L1872575-03	DRO/RRO (TOTAL)	324		200	1	07/07/2025 10:48	WG2562071
MW-13-W-20250620	L1872575-08	Diesel Range Organics (DRO)	470		200	1	07/07/2025 11:28	WG2562071
MW-13-W-20250620	L1872575-08	DRO/RRO (TOTAL)	470		200	1	07/07/2025 11:28	WG2562071

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	ND		2.00	1	07/15/2025 22:00	WG2547172

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	1460	B	500	5	06/25/2025 08:01	WG2546065
(S) a,a,a-Trifluorotoluene(FID)	*98.6*		*78.0-120*		*06/25/2025 08:01*	WG2546065

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/26/2025 14:18	WG2547486
Toluene	ND		1.00	1	06/26/2025 14:18	WG2547486
Ethylbenzene	29.6		1.00	1	07/01/2025 18:47	WG2550722
Total Xylenes	3.64		3.00	1	07/01/2025 18:47	WG2550722
Methyl tert-butyl ether	ND		1.00	1	06/26/2025 14:18	WG2547486
1,2-Dichloroethane	ND		1.00	1	06/26/2025 14:18	WG2547486
(S) Toluene-d8	*98.3*		*80.0-120*		*06/26/2025 14:18*	WG2547486
(S) Toluene-d8	*104*		*80.0-120*		*07/01/2025 18:47*	WG2550722
(S) 4-Bromofluorobenzene	*93.3*		*77.0-126*		*06/26/2025 14:18*	WG2547486
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*07/01/2025 18:47*	WG2550722
(S) 1,2-Dichloroethane-d4	*99.6*		*70.0-130*		*06/26/2025 14:18*	WG2547486
(S) 1,2-Dichloroethane-d4	*86.6*		*70.0-130*		*07/01/2025 18:47*	WG2550722

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	ND		0.0200	1	06/26/2025 23:44	WG2546322
(S) 1,1,1,2-Tetrachloroethane	*95.7*		*60.0-140*		*06/26/2025 23:44*	WG2546322

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	929		200	1	07/04/2025 08:53	WG2552169
Residual Range Organics (RRO)	ND		250	1	07/04/2025 08:53	WG2552169
DRO/RRO (Total)	1090		200	1	07/04/2025 08:53	WG2552169
(S) o-Terphenyl	*86.8*		*52.0-156*		*07/04/2025 08:53*	WG2552169

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-SGT

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		200	1	07/07/2025 10:28	WG2562071
Residual Range Organics (RRO)	ND		250	1	07/07/2025 10:28	WG2562071
DRO/RRO (TOTAL)	ND		200	1	07/07/2025 10:28	WG2562071
(S) o-Terphenyl	*57.4*		*52.0-156*		*07/07/2025 10:28*	WG2562071

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	ND		2.00	1	07/15/2025 22:03	WG2547172

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	ND		100	1	06/25/2025 05:52	WG2546065
(S) a,a,a-Trifluorotoluene(FID)	*101*		*78.0-120*		*06/25/2025 05:52*	WG2546065

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/26/2025 14:39	WG2547486
Toluene	ND		1.00	1	06/26/2025 14:39	WG2547486
Ethylbenzene	ND		1.00	1	07/01/2025 19:07	WG2550722
Total Xylenes	ND		3.00	1	07/01/2025 19:07	WG2550722
Methyl tert-butyl ether	ND		1.00	1	06/26/2025 14:39	WG2547486
1,2-Dichloroethane	ND		1.00	1	06/26/2025 14:39	WG2547486
(S) Toluene-d8	*94.9*		*80.0-120*		*06/26/2025 14:39*	WG2547486
(S) Toluene-d8	*107*		*80.0-120*		*07/01/2025 19:07*	WG2550722
(S) 4-Bromofluorobenzene	*91.3*		*77.0-126*		*06/26/2025 14:39*	WG2547486
(S) 4-Bromofluorobenzene	*105*		*77.0-126*		*07/01/2025 19:07*	WG2550722
(S) 1,2-Dichloroethane-d4	*111*		*70.0-130*		*06/26/2025 14:39*	WG2547486
(S) 1,2-Dichloroethane-d4	*85.9*		*70.0-130*		*07/01/2025 19:07*	WG2550722

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	ND		0.0200	1	06/26/2025 23:55	WG2546322
(S) 1,1,1,2-Tetrachloroethane	*99.6*		*60.0-140*		*06/26/2025 23:55*	WG2546322

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		200	1	07/04/2025 09:33	WG2552169
Residual Range Organics (RRO)	ND		250	1	07/04/2025 09:33	WG2552169
DRO/RRO (Total)	ND		200	1	07/04/2025 09:33	WG2552169
(S) o-Terphenyl	*85.8*		*52.0-156*		*07/04/2025 09:33*	WG2552169

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	ND		2.00	1	07/15/2025 22:07	WG2547172

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	3330	B	500	5	06/25/2025 08:23	WG2546065
(S) a,a,a-Trifluorotoluene(FID)	*98.1*		*78.0-120*		*06/25/2025 08:23*	WG2546065

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	1.17		1.00	1	06/26/2025 15:00	WG2547486
Toluene	ND		1.00	1	06/26/2025 15:00	WG2547486
Ethylbenzene	9.98		1.00	1	07/01/2025 19:27	WG2550722
Total Xylenes	15.2		3.00	1	07/01/2025 19:27	WG2550722
Methyl tert-butyl ether	ND		1.00	1	06/26/2025 15:00	WG2547486
1,2-Dichloroethane	ND		1.00	1	06/26/2025 15:00	WG2547486
(S) Toluene-d8	*98.4*		*80.0-120*		*06/26/2025 15:00*	WG2547486
(S) Toluene-d8	*105*		*80.0-120*		*07/01/2025 19:27*	WG2550722
(S) 4-Bromofluorobenzene	*95.1*		*77.0-126*		*06/26/2025 15:00*	WG2547486
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*07/01/2025 19:27*	WG2550722
(S) 1,2-Dichloroethane-d4	*105*		*70.0-130*		*06/26/2025 15:00*	WG2547486
(S) 1,2-Dichloroethane-d4	*88.0*		*70.0-130*		*07/01/2025 19:27*	WG2550722

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	ND		0.0228	1.14	06/27/2025 00:05	WG2546322
(S) 1,1,1,2-Tetrachloroethane	*93.2*		*60.0-140*		*06/27/2025 00:05*	WG2546322

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	1540		200	1	07/04/2025 10:14	WG2552169
Residual Range Organics (RRO)	407		250	1	07/04/2025 10:14	WG2552169
DRO/RRO (Total)	1950		200	1	07/04/2025 10:14	WG2552169
(S) o-Terphenyl	*86.8*		*52.0-156*		*07/04/2025 10:14*	WG2552169

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-SGT

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	324		200	1	07/07/2025 10:48	WG2562071
Residual Range Organics (RRO)	ND		250	1	07/07/2025 10:48	WG2562071
DRO/RRO (TOTAL)	324		200	1	07/07/2025 10:48	WG2562071
(S) o-Terphenyl	*65.8*		*52.0-156*		*07/07/2025 10:48*	WG2562071

Sample Narrative:

L1872575-03 WG2562071: Sample resembles laboratory standard for Gasoline.

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	ND		2.00	1	07/15/2025 22:10	WG2547172

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	ND		100	1	06/25/2025 06:13	WG2546065
(S) a,a,a-Trifluorotoluene(FID)	*98.6*		*78.0-120*		*06/25/2025 06:13*	WG2546065

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/26/2025 15:21	WG2547486
Toluene	ND		1.00	1	06/26/2025 15:21	WG2547486
Ethylbenzene	ND		1.00	1	07/01/2025 19:47	WG2550722
Total Xylenes	ND		3.00	1	07/01/2025 19:47	WG2550722
Methyl tert-butyl ether	ND		1.00	1	06/26/2025 15:21	WG2547486
1,2-Dichloroethane	ND		1.00	1	06/26/2025 15:21	WG2547486
(S) Toluene-d8	*100*		*80.0-120*		*06/26/2025 15:21*	WG2547486
(S) Toluene-d8	*108*		*80.0-120*		*07/01/2025 19:47*	WG2550722
(S) 4-Bromofluorobenzene	*96.9*		*77.0-126*		*06/26/2025 15:21*	WG2547486
(S) 4-Bromofluorobenzene	*107*		*77.0-126*		*07/01/2025 19:47*	WG2550722
(S) 1,2-Dichloroethane-d4	*112*		*70.0-130*		*06/26/2025 15:21*	WG2547486
(S) 1,2-Dichloroethane-d4	*85.5*		*70.0-130*		*07/01/2025 19:47*	WG2550722

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	ND		0.0200	1	06/27/2025 00:15	WG2546322
(S) 1,1,1,2-Tetrachloroethane	*100*		*60.0-140*		*06/27/2025 00:15*	WG2546322

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		200	1	07/04/2025 10:54	WG2552169
Residual Range Organics (RRO)	ND		250	1	07/04/2025 10:54	WG2552169
DRO/RRO (Total)	ND		200	1	07/04/2025 10:54	WG2552169
(S) o-Terphenyl	*81.1*		*52.0-156*		*07/04/2025 10:54*	WG2552169

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	ND		2.00	1	07/15/2025 22:20	WG2547172

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	ND		500	5	06/25/2025 08:45	WG2546065
(S) a,a,a-Trifluorotoluene(FID)	*98.5*		*78.0-120*		*06/25/2025 08:45*	WG2546065

Sample Narrative:

L1872575-05 WG2546065: Lowest possible dilution due to sample foaming.

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/26/2025 15:41	WG2547486
Toluene	ND		1.00	1	06/26/2025 15:41	WG2547486
Ethylbenzene	ND		1.00	1	07/01/2025 20:07	WG2550722
Total Xylenes	ND		3.00	1	07/01/2025 20:07	WG2550722
Methyl tert-butyl ether	ND		1.00	1	06/26/2025 15:41	WG2547486
1,2-Dichloroethane	ND		1.00	1	06/26/2025 15:41	WG2547486
(S) Toluene-d8	*96.8*		*80.0-120*		*06/26/2025 15:41*	WG2547486
(S) Toluene-d8	*107*		*80.0-120*		*07/01/2025 20:07*	WG2550722
(S) 4-Bromofluorobenzene	*89.8*		*77.0-126*		*06/26/2025 15:41*	WG2547486
(S) 4-Bromofluorobenzene	*105*		*77.0-126*		*07/01/2025 20:07*	WG2550722
(S) 1,2-Dichloroethane-d4	*112*		*70.0-130*		*06/26/2025 15:41*	WG2547486
(S) 1,2-Dichloroethane-d4	*83.4*		*70.0-130*		*07/01/2025 20:07*	WG2550722

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	ND		0.0200	1	06/27/2025 00:26	WG2546322
(S) 1,1,1,2-Tetrachloroethane	*96.2*		*60.0-140*		*06/27/2025 00:26*	WG2546322

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		200	1	07/04/2025 11:34	WG2552169
Residual Range Organics (RRO)	ND		250	1	07/04/2025 11:34	WG2552169
DRO/RRO (Total)	305		200	1	07/04/2025 11:34	WG2552169
(S) o-Terphenyl	*82.1*		*52.0-156*		*07/04/2025 11:34*	WG2552169

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	ND		2.00	1	07/15/2025 22:23	WG2547172

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	ND		100	1	06/25/2025 06:35	WG2546065
(S) a,a,a-Trifluorotoluene(FID)	*100*		*78.0-120*		*06/25/2025 06:35*	WG2546065

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/26/2025 16:02	WG2547486
Toluene	ND		1.00	1	06/26/2025 16:02	WG2547486
Ethylbenzene	ND		1.00	1	07/01/2025 20:27	WG2550722
Total Xylenes	ND		3.00	1	07/01/2025 20:27	WG2550722
Methyl tert-butyl ether	ND		1.00	1	06/26/2025 16:02	WG2547486
1,2-Dichloroethane	ND		1.00	1	06/26/2025 16:02	WG2547486
(S) Toluene-d8	*97.1*		*80.0-120*		*06/26/2025 16:02*	WG2547486
(S) Toluene-d8	*107*		*80.0-120*		*07/01/2025 20:27*	WG2550722
(S) 4-Bromofluorobenzene	*90.6*		*77.0-126*		*06/26/2025 16:02*	WG2547486
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*07/01/2025 20:27*	WG2550722
(S) 1,2-Dichloroethane-d4	*115*		*70.0-130*		*06/26/2025 16:02*	WG2547486
(S) 1,2-Dichloroethane-d4	*84.0*		*70.0-130*		*07/01/2025 20:27*	WG2550722

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	ND		0.0200	1	06/27/2025 01:07	WG2546322
(S) 1,1,1,2-Tetrachloroethane	*97.6*		*60.0-140*		*06/27/2025 01:07*	WG2546322

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		200	1	07/04/2025 12:14	WG2552169
Residual Range Organics (RRO)	ND		250	1	07/04/2025 12:14	WG2552169
DRO/RRO (Total)	ND		200	1	07/04/2025 12:14	WG2552169
(S) o-Terphenyl	*81.6*		*52.0-156*		*07/04/2025 12:14*	WG2552169

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	ND		2.00	1	07/15/2025 22:26	WG2547172

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	688	B	500	5	06/25/2025 09:07	WG2546065
(S) a,a,a-Trifluorotoluene(FID)	*101*		*78.0-120*		*06/25/2025 09:07*	WG2546065

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/26/2025 16:23	WG2547486
Toluene	ND		1.00	1	06/26/2025 16:23	WG2547486
Ethylbenzene	1.23		1.00	1	07/01/2025 20:47	WG2550722
Total Xylenes	ND		3.00	1	07/01/2025 20:47	WG2550722
Methyl tert-butyl ether	ND		1.00	1	06/26/2025 16:23	WG2547486
1,2-Dichloroethane	ND		1.00	1	06/26/2025 16:23	WG2547486
(S) Toluene-d8	*97.8*		*80.0-120*		*06/26/2025 16:23*	WG2547486
(S) Toluene-d8	*109*		*80.0-120*		*07/01/2025 20:47*	WG2550722
(S) 4-Bromofluorobenzene	*95.8*		*77.0-126*		*06/26/2025 16:23*	WG2547486
(S) 4-Bromofluorobenzene	*104*		*77.0-126*		*07/01/2025 20:47*	WG2550722
(S) 1,2-Dichloroethane-d4	*111*		*70.0-130*		*06/26/2025 16:23*	WG2547486
(S) 1,2-Dichloroethane-d4	*84.5*		*70.0-130*		*07/01/2025 20:47*	WG2550722

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	ND		0.0202	1.01	06/27/2025 01:17	WG2546322
(S) 1,1,1,2-Tetrachloroethane	*99.0*		*60.0-140*		*06/27/2025 01:17*	WG2546322

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	627		200	1	07/04/2025 12:55	WG2552169
Residual Range Organics (RRO)	ND		250	1	07/04/2025 12:55	WG2552169
DRO/RRO (Total)	733		200	1	07/04/2025 12:55	WG2552169
(S) o-Terphenyl	*85.8*		*52.0-156*		*07/04/2025 12:55*	WG2552169

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-SGT

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		200	1	07/07/2025 11:08	WG2562071
Residual Range Organics (RRO)	ND		250	1	07/07/2025 11:08	WG2562071
DRO/RRO (TOTAL)	ND		200	1	07/07/2025 11:08	WG2562071
(S) o-Terphenyl	*65.3*		*52.0-156*		*07/07/2025 11:08*	WG2562071

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	ND		2.00	1	07/15/2025 22:30	WG2547172

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	2630		100	1	06/27/2025 05:02	WG2547938
(S) a,a,a-Trifluorotoluene(FID)	*101*		*78.0-120*		*06/27/2025 05:02*	WG2547938

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/26/2025 16:44	WG2547486
Toluene	ND		1.00	1	06/26/2025 16:44	WG2547486
Ethylbenzene	3.83		1.00	1	07/01/2025 21:07	WG2550722
Total Xylenes	28.6		3.00	1	07/01/2025 21:07	WG2550722
Methyl tert-butyl ether	ND		1.00	1	06/26/2025 16:44	WG2547486
1,2-Dichloroethane	ND		1.00	1	06/26/2025 16:44	WG2547486
(S) Toluene-d8	*99.5*		*80.0-120*		*06/26/2025 16:44*	WG2547486
(S) Toluene-d8	*103*		*80.0-120*		*07/01/2025 21:07*	WG2550722
(S) 4-Bromofluorobenzene	*94.6*		*77.0-126*		*06/26/2025 16:44*	WG2547486
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*07/01/2025 21:07*	WG2550722
(S) 1,2-Dichloroethane-d4	*104*		*70.0-130*		*06/26/2025 16:44*	WG2547486
(S) 1,2-Dichloroethane-d4	*85.3*		*70.0-130*		*07/01/2025 21:07*	WG2550722

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	ND		0.0200	1	06/27/2025 01:28	WG2546322
(S) 1,1,1,2-Tetrachloroethane	*99.0*		*60.0-140*		*06/27/2025 01:28*	WG2546322

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	1090		200	1	07/04/2025 13:35	WG2552169
Residual Range Organics (RRO)	ND		250	1	07/04/2025 13:35	WG2552169
DRO/RRO (Total)	1330		200	1	07/04/2025 13:35	WG2552169
(S) o-Terphenyl	*87.9*		*52.0-156*		*07/04/2025 13:35*	WG2552169

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-SGT

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	470		200	1	07/07/2025 11:28	WG2562071
Residual Range Organics (RRO)	ND		250	1	07/07/2025 11:28	WG2562071
DRO/RRO (TOTAL)	470		200	1	07/07/2025 11:28	WG2562071
(S) o-Terphenyl	*80.0*		*52.0-156*		*07/07/2025 11:28*	WG2562071

Sample Narrative:

L1872575-08 WG2562071: Sample resembles laboratory standard for Gasoline.

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	ND		2.00	1	07/15/2025 22:33	WG2547172

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	ND		100	1	06/27/2025 05:24	WG2547938
(S) a,a,a-Trifluorotoluene(FID)	*105*		*78.0-120*		*06/27/2025 05:24*	WG2547938

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/26/2025 17:05	WG2547486
Toluene	ND		1.00	1	06/26/2025 17:05	WG2547486
Ethylbenzene	ND		1.00	1	07/01/2025 21:28	WG2550722
Total Xylenes	ND		3.00	1	07/01/2025 21:28	WG2550722
Methyl tert-butyl ether	ND		1.00	1	06/26/2025 17:05	WG2547486
1,2-Dichloroethane	ND		1.00	1	06/26/2025 17:05	WG2547486
(S) Toluene-d8	*97.7*		*80.0-120*		*06/26/2025 17:05*	WG2547486
(S) Toluene-d8	*107*		*80.0-120*		*07/01/2025 21:28*	WG2550722
(S) 4-Bromofluorobenzene	*95.7*		*77.0-126*		*06/26/2025 17:05*	WG2547486
(S) 4-Bromofluorobenzene	*105*		*77.0-126*		*07/01/2025 21:28*	WG2550722
(S) 1,2-Dichloroethane-d4	*107*		*70.0-130*		*06/26/2025 17:05*	WG2547486
(S) 1,2-Dichloroethane-d4	*83.6*		*70.0-130*		*07/01/2025 21:28*	WG2550722

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	ND		0.0200	1	06/27/2025 01:38	WG2546322
(S) 1,1,1,2-Tetrachloroethane	*101*		*60.0-140*		*06/27/2025 01:38*	WG2546322

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		200	1	07/04/2025 15:16	WG2552169
Residual Range Organics (RRO)	ND		250	1	07/04/2025 15:16	WG2552169
DRO/RRO (Total)	ND		200	1	07/04/2025 15:16	WG2552169
(S) o-Terphenyl	*79.5*		*52.0-156*		*07/04/2025 15:16*	WG2552169

1 Cp
2 Tc
3 Ss
4 Cn
5 Ds
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	ND		2.00	1	07/15/2025 22:36	WG2547172

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	ND		100	1	06/27/2025 05:46	WG2547938
(S) a,a,a-Trifluorotoluene(FID)	*105*		*78.0-120*		*06/27/2025 05:46*	WG2547938

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/26/2025 17:26	WG2547486
Toluene	ND		1.00	1	06/26/2025 17:26	WG2547486
Ethylbenzene	ND		1.00	1	07/01/2025 21:48	WG2550722
Total Xylenes	ND		3.00	1	07/01/2025 21:48	WG2550722
Methyl tert-butyl ether	ND		1.00	1	06/26/2025 17:26	WG2547486
1,2-Dichloroethane	ND		1.00	1	06/26/2025 17:26	WG2547486
(S) Toluene-d8	*97.8*		*80.0-120*		*06/26/2025 17:26*	WG2547486
(S) Toluene-d8	*105*		*80.0-120*		*07/01/2025 21:48*	WG2550722
(S) 4-Bromofluorobenzene	*95.3*		*77.0-126*		*06/26/2025 17:26*	WG2547486
(S) 4-Bromofluorobenzene	*103*		*77.0-126*		*07/01/2025 21:48*	WG2550722
(S) 1,2-Dichloroethane-d4	*104*		*70.0-130*		*06/26/2025 17:26*	WG2547486
(S) 1,2-Dichloroethane-d4	*84.0*		*70.0-130*		*07/01/2025 21:48*	WG2550722

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	ND		0.0200	1	06/27/2025 01:48	WG2546322
(S) 1,1,1,2-Tetrachloroethane	*95.3*		*60.0-140*		*06/27/2025 01:48*	WG2546322

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		200	1	07/04/2025 15:56	WG2552169
Residual Range Organics (RRO)	ND		250	1	07/04/2025 15:56	WG2552169
DRO/RRO (Total)	ND		200	1	07/04/2025 15:56	WG2552169
(S) o-Terphenyl	*82.6*		*52.0-156*		*07/04/2025 15:56*	WG2552169

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	ND		100	1	06/27/2025 02:24	WG2547938
(S) a,a,a-Trifluorotoluene(FID)	*105*		*78.0-120*		*06/27/2025 02:24*	WG2547938

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/26/2025 13:36	WG2547486
Toluene	ND		1.00	1	06/26/2025 13:36	WG2547486
Ethylbenzene	ND		1.00	1	07/01/2025 18:07	WG2550722
Total Xylenes	ND		3.00	1	07/01/2025 18:07	WG2550722
Methyl tert-butyl ether	ND		1.00	1	06/26/2025 13:36	WG2547486
1,2-Dichloroethane	ND		1.00	1	06/26/2025 13:36	WG2547486
(S) Toluene-d8	*94.9*		*80.0-120*		*06/26/2025 13:36*	WG2547486
(S) Toluene-d8	*106*		*80.0-120*		*07/01/2025 18:07*	WG2550722
(S) 4-Bromofluorobenzene	*87.8*		*77.0-126*		*06/26/2025 13:36*	WG2547486
(S) 4-Bromofluorobenzene	*103*		*77.0-126*		*07/01/2025 18:07*	WG2550722
(S) 1,2-Dichloroethane-d4	*117*		*70.0-130*		*06/26/2025 13:36*	WG2547486
(S) 1,2-Dichloroethane-d4	*88.4*		*70.0-130*		*07/01/2025 18:07*	WG2550722

Method Blank (MB)

(MB) R4245481-1 07/15/25 21:41

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Lead	U		0.500	2.00

Laboratory Control Sample (LCS)

(LCS) R4245481-2 07/15/25 21:44

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Lead	50.0	49.6	99.2	80.0-120	

L1872548-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1872548-01 07/15/25 21:47 • (MS) R4245481-4 07/15/25 21:54 • (MSD) R4245481-5 07/15/25 21:57

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead	50.0	3.73	50.4	50.2	93.4	92.9	1	75.0-125			0.449	20

Method Blank (MB)

(MB) R4236775-2 06/25/25 01:15

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	90.1	J	78.6	100
(S) a,a,a-Trifluorotoluene(FID)	*98.8*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R4236775-1 06/25/25 00:22

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5000	5330	107	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*106*	*78.0-120*	

Method Blank (MB)

(MB) R4238164-3 06/27/25 01:02

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		78.6	100
(S) a,a,a-Trifluorotoluene(FID)	*105*			*78.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4238164-1 06/26/25 22:17 • (LCSD) R4238164-2 06/27/25 00:16

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5000	5610	5240	112	105	70.0-124			6.82	20
(S) a,a,a-Trifluorotoluene(FID)				*116*	*116*	*78.0-120*				

Method Blank (MB)

(MB) R4238885-3 06/26/25 10:29

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Methyl tert-butyl ether	U		0.101	1.00
1,2-Dichloroethane	U		0.0819	1.00
(S) Toluene-d8	*94.4*			*80.0-120*
(S) 4-Bromofluorobenzene	*88.8*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*119*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4238885-1 06/26/25 09:07 • (LCSD) R4238885-2 06/26/25 09:27

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	5.00	4.71	4.45	94.2	89.0	70.0-123			5.68	20
Toluene	5.00	4.45	4.13	89.0	82.6	79.0-120			7.46	20
Methyl tert-butyl ether	5.00	4.22	3.93	84.4	78.6	68.0-125			7.12	20
1,2-Dichloroethane	5.00	5.01	4.67	100	93.4	70.0-128			7.02	20
(S) Toluene-d8				*97.8*	*98.0*	*80.0-120*				
(S) 4-Bromofluorobenzene				*91.1*	*91.8*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*116*	*114*	*70.0-130*				

Method Blank (MB)

(MB) R4239356-3 07/01/25 16:56

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ethylbenzene	U		0.137	1.00
Total Xylenes	U		0.174	3.00
(S) Toluene-d8	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*103*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*85.5*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4239356-1 07/01/25 15:55 • (LCSD) R4239356-2 07/01/25 16:15

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Ethylbenzene	5.00	6.00	6.00	120	120	79.0-123			0.000	20
Total Xylenes	15.0	17.3	17.3	115	115	79.0-123			0.000	20
(S) Toluene-d8				*107*	*108*	*80.0-120*				
(S) 4-Bromofluorobenzene				*102*	*105*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*89.3*	*88.0*	*70.0-130*				

Method Blank (MB)

(MB) R4237131-1 06/26/25 22:21

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylene Dibromide	U		0.00550	0.0200
(S) 1,1,1,2-Tetrachloroethane	*102*			*60.0-140*

L1872188-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1872188-06 06/26/25 23:03 • (DUP) R4237131-3 06/26/25 22:52

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	ND	1	0.000		20
(S) 1,1,1,2-Tetrachloroethane		*97.8*				*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4237131-4 06/27/25 00:46 • (LCSD) R4237131-5 06/27/25 03:01

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.250	0.249	0.238	99.6	95.2	60.0-140			4.52	20
(S) 1,1,1,2-Tetrachloroethane				*98.4*	*96.6*	*60.0-140*				

L1872188-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1872188-07 06/26/25 22:42 • (MS) R4237131-2 06/26/25 22:32

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0979	ND	0.133	136	1	64.0-159	
(S) 1,1,1,2-Tetrachloroethane				*100*		*60.0-140*	

Method Blank (MB)

(MB) R4240569-1 07/04/25 07:53

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Diesel Range Organics (DRO)	U		60.5	200
Residual Range Organics (RRO)	U		77.2	250
DRO/RRO (Total)	U		60.5	200
(S) o-Terphenyl	*68.5*			*52.0-156*

Laboratory Control Sample (LCS)

(LCS) R4240569-2 07/04/25 08:13

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	1500	1520	101	50.0-150	
(S) o-Terphenyl			*82.0*	*52.0-156*	

L1873231-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1873231-01 07/04/25 20:38 • (MS) R4240569-3 07/04/25 20:58 • (MSD) R4240569-4 07/04/25 21:18

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	1430	ND	1520	ND	106	0.000	1	50.0-150		J3 J6	200	20
(S) o-Terphenyl					*85.8*	*77.9*		*52.0-156*				

Method Blank (MB)

(MB) R4247360-1 07/07/25 09:48

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Diesel Range Organics (DRO)	U		60.5	200
Residual Range Organics (RRO)	U		77.2	250
DRO/RRO (TOTAL)	U		60.5	200
(S) o-Terphenyl	*44.6*	J2		*52.0-156*

Laboratory Control Sample (LCS)

(LCS) R4247360-2 07/07/25 10:08

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	1500	1060	70.7	50.0-150	
(S) o-Terphenyl			*60.0*	*52.0-156*	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
U (Radiochemistry)	Result + Error < MDA.
J (Radiochemistry)	Result < MDA; Result + Error > MDA.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
BPLAMP - Arcadis WA

6296 San Ignacio Ave
Suite C & D
San Jose. CA 95119

Billing Information:
ENFOS
1687 114th Ave SE
Suite 100
Bellvue, WA 98004

Pres Chk

Report to:
Lindsey Barger 408-398-1580

Email To: **lindsey.barger@arcadis.com**

Project Description:
5544 Kent

City/State Collected: KENT / WA

Please Circle: PT MT CT ET

Regulatory Program(DOD,RCRA,DW,etc):

Client Project #
30282114 Task: 19.21

Lab Project #
BPLAMPARCWA-5544

Collected by (print):
M. HILLER

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day ___ STD TAT

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Diss Pb 250mlHDPE-NoPres	NWTPH-DX w/SGT 40mlAmb-HCl-BT	NWTPH-DX w/o SGT 40mlAmb-HCl-BT	NWTPHGX 40mlAmb HCl	SV8011 40mlClr-NaThio	SV8011-EDB 40mlClr-NaThio	Total Pb 250mlHDPE-HNO3	V8260BTEX+EDC 40mlAmb-HCl			Remarks	Sample # (lab only)
MW-2-W-20250620	G	GW	–	6/20/25	1154	13	X	X	X	X		X	X	X				-01
MW-5-W-20250620		GW	–		1011	13	X	X	X	X		X	X	X				-02
MW-6-W-20250620		GW	–		1254	13	X	X	X	X		X	X	X				-03
MW-9-W-20250620		GW	–		0906	13	X	X	X	X		X	X	X				-04
MW-10-W-20250620		GW	–		1227	13	X	X	X	X		X	X	X				-05
MW-11-W-20250620		GW	–		0939	13	X	X	X	X		X	X	X				-06
MW-12-W-20250620		GW	–		1043	13	X	X	X	X		X	X	X				-07
MW-13-W-20250620		GW	–		1118	13	X	X	X	X		X	X	X				-08
MW-14-W-20250620		GW	–		0821	13	X	X	X	X		X	X	X				-09
BD-1-W-20250620		GW	–		1200	13	X	X	X	X		X	X	X				-10

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1872575

Ta G197

Acctnum: **BPLAMPARCWA**
Template:**T276092**
Prelogin: **P1160751**
PM: **4089 - Andi R Jones**
PB:
Shipped Via: **Client**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:HOLD PB Dissolved and NWTPHDXLVI w/SGT pending results

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier _____

Tracking # 4493 5928 0380

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: X Y __N
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR
	6/23/25		SHIPPED VIA FEDEX	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.1+0.4=5.4 °C Bottles Received: 30
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/24/25 Time: 830

If preser ne
PH - 10BDH2631
TRC - 4072A72

Hold:

Condition: NCF / OK

Company Name/Address:	Billing Information:	Pres Chk	Analysis / Container / Preservative	Chain of Custody Page 2 of 2
BPLAMP - Arcadis WA 6296 San Ignacio Ave Suite C & D San Jose, CA 95119	ENFOS 1687 114th Ave SE Suite 100 Bellvue, WA 98004			Pace PEOPLE ADVANCING SCIENCE MT JULIET, TN 12065 Lebanon Rd Mount Juliet, TN 37122 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf
Report to: Lindsey Barger 408-398-1580	Email To: lindsey.barger@arcadis.com			

Project Description: 5544 Kent	City/State Collected: KENT / WA	Please Circle: (PT) MT CT ET
Regulatory Program(DOD,RCRA,DW,etc):	Client Project # 30282114 Task: 19.21	Lab Project # BPLAMPARCWA-5544
Collected by (print): M. HILLER	Site/Facility ID #	P.O. #
Collected by (signature): [signature] Immediately Packed on Ice N ___ Y X	*Rush?* (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day ___ STD TAT	Quote # Date Results Needed

SDG # 4872575
Table #
Acctnum: BPLAMPARCWA
Template: T276092
Prelogin: P1160751
PM: 4089 - Andi R Jones
PB:
Shipped Via: Client

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Diss Pb 250mlHDPE-NoPres	NWTPH-DX w/SGT 40mlAmb-HCl-BT	NWTPH-DX w/o SGT 40mlAmb-HCl-BT	NWTPHGX 40mlAmb HCl	SV8011 40mlClr-NaThio	SV8011-EDB 40mlClr-NaThio	Total Pb 250mlHDPE-HNO3	V8260BTEX+EDC 40mlAmb-HCl			Remarks	Sample # (lab only)
TB-1-20250620	G	GW	-	6/20/25	0900	2				X				X				-11
		GW																
		GW																
		GW																
		GW																
		GW																
		GW																
		GW																
		GW																

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other________

Remarks: HOLD PB Dissolved and NWTPHDXLVI w/SGT pending results

pH ______ Temp ______
Flow ______ Other ______

Samples returned via: __ UPS X FedEx __ Courier ______

Tracking # 4493 5928 0380

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
[signature]	6/23/25		SHIPPED VIA FEDEX	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: TJ 4 5.0 ±0=5.4 °C Bottles Received: 30
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 6/24/25 Time: 830

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Outlook

Re: BP 5544 Report L1872575

From Mayne, Kama <Kama.Mayne@arcadis.com>
Date Wed 7/16/25 5:45 PM
To Andi Jones <andi.jones@pacelabs.com>
Cc Barger, Lindsey <Lindsey.Barger@arcadis.com>; Jones, Elise <Elise.Jones@arcadis.com>; Nygaard, Elysha <Elysha.Nygaard@arcadis.com>; Bowers, Jaelyn <Jaelyn.Bowers@arcadis.com>; Lum, Kiona <Kiona.Lum@arcadis.com>

CAUTION: This email originated from outside Pace Analytical. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Andi,

Looking at the prelim results I see the following:
MW-2 DRO 0.929 mgL and RRO 1.09 mgL
MW-6 DRO 1.54 mgL, RRO 1.95 mgL
MW-12 DRO 0.627 mgL, RRO 0.733 mgL
MW-13 DRO 1.09 mgL, RRO 1.33 mgL

Considering those results put us over 500 ugL, can we activate the SGC for those wells please?

Thank you,

Kama Mayne
Project Task Manager 1
Arcadis of Michigan, LLC
28550 Cabot Drive, Suite 500
Novi, MI | 48377 | USA
M +1 907 460 4006
www.arcadis.com

From: Andi Jones <andi.jones@pacelabs.com>
Sent: Wednesday, July 16, 2025 4:32:05 PM
To: Mayne, Kama <Kama.Mayne@arcadis.com>
Cc: Barger, Lindsey <Lindsey.Barger@arcadis.com>; Jones, Elise <Elise.Jones@arcadis.com>; Nygaard, Elysha <Elysha.Nygaard@arcadis.com>; Bowers, Jaelyn <Jaelyn.Bowers@arcadis.com>; Lum, Kiona <Kiona.Lum@arcadis.com>
Subject: Re: BP 5544 Report L1872575

Hi,

Appendix D

Terrestrial Ecological Evaluation

Terrestrial Ecological Evaluation Form

Washington State Department of Ecology – Toxics Cleanup Program

Under the Model Toxics Control Act[1] (MTCA), the Department of Ecology (Ecology) requires a terrestrial ecological evaluation (TEE) if hazardous substances are released to the soil at a site. In this case, you must take one of these three actions as part of your site investigation and cleanup.

1. Document an exclusion from further evaluation under WAC 173-340-7491.[2]
2. Conduct a simplified evaluation under WAC 173-340-7492.[3]
3. Conduct a site-specific evaluation under WAC 173-340-7493.[4]

This form documents the TEE type and results for your Site. You must fill out and submit this form to Ecology to complete your remedial investigation. Completing this form alone isn't enough to document your evaluation. You still need to document your analysis and the basis for your conclusion in a cleanup plan or report. For more information, contact the Ecology cleanup project manager assigned to your Site, visit our Terrestrial Ecological Evaluations[5] webpage, or see our draft TEE guidance.[6]

Part 1 Site name and identifying information

Identify the Site being documented for an evaluation.

Site name: **Former ARCO Service Station 5544**

Site address: **19918 68th Ave. South in Kent, Washington**

FSID:[a] **84544811** VCP ID:[b] **10741**

Part 2 Evaluator name and contact information

Provide the name and contact information for the person who conducted the evaluation.

Name: **Kama Mayne**

Title: **Project Task Manager**

Organization: **Arcadis U.S., Inc.**

Mailing address: **28550 Cabot Drive**

City: **Novi** State: **MI** Zip: **48377**

Email: **kama.mayne@arcadis.com** Phone: **907-460-4006**

[a] Facility/Site ID (FSID) assigned by Ecology

[b] Voluntary Cleanup Program (VCP) project ID assigned by Ecology

Part 3 Document evaluation type and results

3A Exclusion from further evaluation

3A-1 Does the Site qualify for an exclusion from further evaluation? (✓ one)

☐ Yes (go to next question).

☑ No or Unknown (go to Section 3B).

3A-2 What is the basis for the exclusion? (✓ all that apply, then skip to Part 4)

Point of compliance: WAC 173-340-7491(1)(a)

All soil contamination is, or will be, deeper than at least:*

☐ 15 feet below ground surface.

☐ 6 feet below ground surface or other Ecology-approved depth, and institutional controls are used to manage remaining contamination.

Barriers to exposure: WAC 173-340-7491(1)(b)

☐ All contaminated soil is, or will be, covered by physical barriers (e.g., buildings or pavement) that prevent exposure to plants and wildlife, and institutional controls are used to manage the remaining contamination.*

Undeveloped land: WAC 173-340-7491(1)(c)

☐ Less than 0.25 acres of contiguous# undeveloped land± are located on or within 500 feet of any area of the Site, and any of the following chemicals is present:

chlorinated dioxins or furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, heptachlor epoxide, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, or pentachlorobenzene.

☐ For sites not impacted by any of these chemicals, less than 1.5 acres of contiguous undeveloped land exists on or within 500 feet of any area of the Site.

Background concentrations: WAC 173-340-7491(1)(d)

☐ Concentrations of hazardous substances in soil do not exceed natural background levels defined in WAC 173-340-200[7] and WAC 173-340-709.[8]

* An exclusion based on future land use must have an Ecology-acceptable completion date for any future development.

\# Contiguous undeveloped land is not fragmented into smaller areas by highways, extensive paving, or similar structures that could hinder wildlife access to such areas.

± Undeveloped land is not covered by buildings, roads, pavement, or other barriers that would prevent wildlife from feeding on plants and other food sources in or on the soil.

3B Simplified evaluation

3B-1 Does the Site qualify for a simplified evaluation? (✓ one)

- [x] Yes (go to next question).
- [ ] No or Unknown (skip to Section 3C).

3B-2 Did you conduct a simplified evaluation? (✓ one)

- [x] Yes (go to next question).
- [ ] No (skip to Section 3C).

3B-3 Was further evaluation necessary? (✓ one)

- [ ] Yes (go to next question).
- [x] No (go to Question 3B-5).

3B-4 If further evaluation was necessary, what did you do? (✓ one)

- [ ] Used the MTCA Table 749-2[9] concentrations as cleanup levels (skip to Part 4).
- [ ] Conducted a site-specific evaluation (skip to Section 3C).

3B-5 If no further evaluation was necessary, what was the reason? (✓ all that apply, then skip to Part 4).

Exposure analysis: WAC 173-340-7492(2)(a)

- [x] The total area of Site soil contamination is not more than 350 square feet.
- [ ] The current or planned land use makes wildlife exposure unlikely, based on MTCA Table 749-1.[10]

Pathway analysis: WAC 173-340-7492(2)(b)

- [ ] No potential exposure pathways from soil contamination to ecological receptors are complete.

Contaminant analysis: WAC 173-340-7492(2)(c)

- [ ] No contaminant listed in MTCA Table 749-2 is, or will be, present from ground surface to 15 feet deep at concentrations that exceed the values listed in MTCA Table 749-2.
- [ ] No contaminant listed in MTCA Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth, if approved by Ecology) at concentrations that exceed the values listed in MTCA Table 749-2, and institutional controls are used to manage remaining contamination.
- [ ] No contaminant listed in MTCA Table 749-2 is, or will be, present in the upper 15 feet at concentrations likely to be toxic or have the potential to bioaccumulate, as determined using Ecology-approved bioassay results.
- [ ] No contaminant listed in MTCA Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth, if approved by Ecology) at concentrations likely to be toxic or have the potential to bioaccumulate, as determined using Ecology-approved bioassay results, and institutional controls are used to manage remaining contamination.

3C Site-specific evaluation

A site-specific evaluation process consists of: 1) formulating the problem, and 2) selecting the methods for addressing the identified problem. Both parts require Ecology consultation and approval – see WAC 173-340-7493(1)(c). For more information, see our draft TEE guidance.

3C-1 Was there a problem? – see WAC 173-340-7493(2)? (✓ one)

- ☐ Yes (go to next question)
- ☐ No (select the reason here, then go to 3C-5):
  - ☐ No issues were identified during the problem formulation step.
  - ☐ Issues were identified and resolved by cleanup actions for protecting human health.

3C-2 What did you do to resolve the problem? – see WAC 173-340-7493(3)? (✓ one)

- ☐ Used concentrations listed in MTCA Table 749-3 as cleanup levels (go to Question 3C-5).
- ☐ Used one or more methods listed in WAC 173-340-7493(3) to evaluate and resolve the identified problem (go to next question).

3C-3 If you conducted further site-specific evaluations, what methods did you use – see WAC 173-340-7493(3)? (✓ all that apply)

- ☐ Literature surveys.
- ☐ Biomarkers.
- ☐ Site-specific field studies
- ☐ Soil bioassays.
- ☐ Weight of evidence.
- ☐ Wildlife exposure model

Other Ecology-approved methods – please specify:

3C-4 What was the result of those evaluations? (✓ one)

- ☐ No problems were identified.
- ☐ Identified a problem and established site-specific cleanup levels.

3C-5 Has Ecology approved both your problem formulation and problem resolution steps? (✓ one)

- ☐ Yes Identify the Ecology staff who approved those steps:
- ☐ No (go to Part 4).

Part 4 Submit to Ecology

Email this completed form to the cleanup site manager assigned to your site.

ADA Accessibility

Ecology is committed to providing people with disabilities access to our information and services by meeting or exceeding the requirements of state and federal laws.

To request an ADA accommodation, email ecyadacoordinator@ecy.wa.gov, call (360) 407-7170, or call Ecology through the Washington Telecommunication Relay for services including text telephone (TTY) at 711 or through your preferred relay service provider. Visit Ecology's Accessibility & the Americans with Disabilities Act[15] webpage for more accessibility information.

[1] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340&full=true
[2] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340&full=true#173-340-7491
[3] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340&full=true#173-340-7492
[4] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340&full=true#173-340-7493
[5] https://ecology.wa.gov/regulations-permits/guidance-technical-assistance/terrestrial-ecological-evaluation
[6] https://apps.ecology.wa.gov/publications/SummaryPages/1909051.html
[7] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340&full=true#173-340-200
[8] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340&full=true#173-340-709
[9] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340&full=true#173-340-900
[10] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340&full=true#173-340-900
[11] mailto:VCP-NWRO@ecy.wa.gov
[12] mailto:VCP-SWRO@ecy.wa.gov
[13] mailto:VCP-CRO@ecy.wa.gov
[14] mailto:VCP-ERO@ecy.wa.gov
[15] https://ecology.wa.gov/about-us/accessibility-equity/accessibility

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