

Libby Goldstein
Washington State Department of Ecology
Northwest Regional Office
3190 160th Avenue Southeast
Bellevue, Washington 98008-5452

Subject:

Annual Site Status Report 2014
ARCO Facility No. 5544
Ecology Facility ID: 84544811
VCP No: NW2430
19918 68th Avenue South
Kent, Washington 98032

Dear Ms. Goldstein:

On behalf of BP West Coast Products, LLC. (BP), ARCADIS U.S., Inc. (ARCADIS) is pleased to submit this Annual Site Status Report 2014 discussing the advancement of four soil borings, the installation of three monitoring wells and groundwater monitoring activities for the above referenced facility (the Site). The Site currently operates as an active retail gasoline station located at 19918 68th Avenue South in Kent, Washington. A Site Location Map and Site Aerial Map are presented as **Figures 1** and **2**, respectively.

Advancement of Soil Borings

Between July 28, 2014 and July 30, 2014, ARCADIS advanced four soil borings (AUS-HB-3, AUS-HB-4, AUS-SB-1 and AUS-SB-2) to confirm historical impacts identified at the Site as well as to collect soil samples for laboratory analysis to support the generation of site specific Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method B Cleanup Levels (CULs). The soil borings were advanced by a licensed drilling subcontractor, Cascade Drilling, L.P. (CDLP). The locations of the soil borings are presented on **Figure 3**.

Prior to conducting the drilling at the Site ARCADIS contacted the One-Call Utility Location Service for identifying public underground utilities at the proposed soil boring and monitoring well locations. ARCADIS subcontracted ULS Services of Pocatello, Idaho to identify private utilities such as electrical, irrigation sumps, security and electronic cables, etc. ARCADIS staff also conducted a visual site inspection of the property to identify additional potential

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ENVIRONMENT

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April 16, 2015

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Our ref:
GP09BPNA.WA39.N0000

utility lines. In this way ARCADIS established three lines of evidence for utilities prior to the implementation of any subsurface intrusion activities at the Site.

Soil borings AUS-HB-3 and AUS-HB-4 were advanced adjacent to the station dispenser island to a depth of 5.5 feet below ground surface (bgs) using a hand auger. The soil borings were advanced to collect soil samples that would support the generation of MTCA Method B CULs. Soil Boring AUS-SB-2 was advanced to a total depth of 12.5 feet bgs using a hand auger. Alternatively, soil boring AUS-SB-1 was initially cleared using an air knife and vacuum truck to reduce the potential for damage to subsurface utilities. AUS-SB-1 was cleared to a depth of 8 feet bgs then advanced to total depths of 14 feet bgs. Soil boring AUS-SB-1 was advanced using an 8-inch diameter truck mounted hollow-stem auger drill rig. During drilling, soil samples were collected for lithological description at intervals determined by ARCADIS personnel. Investigative derived waste generated during drilling was transported off-Site by Kleen Environmental Technologies, Inc. (KETI) of Seattle, Washington to the appropriate disposal facility. Soil types and other pertinent data were recorded in the soil boring logs included in **Attachment A**.

Soil samples were collected for laboratory analysis from AUS-HB-4 at a depth of 5 feet bgs; from AUS-SB-1 at depths of 7.5 and 12.5 feet bgs; and from AUS-SB-2 depths of 5, 7.5 and 12.5 feet bgs. Soil samples were selected to confirm historical impacts identified at the Site, at the highest observed volatile organic compound (VOCs) headspace concentrations (in parts per million [ppm]) using photoionization detector (PID) readings and the bottom of the boring. The samples were placed in laboratory-provided, pre-cleaned sample containers, sealed, labeled, and immediately stored in a cooler with ice for transport to Eurofins Lancaster Laboratories Environmental (Eurofins) in Lancaster, Pennsylvania under standard chain-of-custody protocol. Soil samples were analyzed for all or some of the following constituents of concern (COCs):

- Total Petroleum Hydrocarbons (TPH) as gasoline range organics (GRO) by Ecology Northwest Method NWTPH-Gx;
- TPH as diesel range organics (DRO) and heavy oil range organics (HO) by Ecology Northwest Method NWTPH-Dx;
- Benzene, toluene, ethylbenzene, total xylenes (BTEX, collectively), methyl tertiary butyl ether (MTBE) by United State Environmental Protection Agency (EPA) Method 8260b, and,
- Lead by EPA Method 6010b.

Analytical results indicated concentrations of COCs in soil were below laboratory method detection limit (MDLs) or did not exceed MTCA Method A CULs in any of the samples

collected. Therefore, soil analytical results confirmed impacts of COCs are no longer present above MTCA Method A CULs in the following areas.

- The soil sample collected from AUS-SB-1 at 7.5 feet bgs confirmed impacts in soils from AS-1 at 7 feet bgs have attenuated or remediated through air sparge and soil vapor extraction (AS/SVE) system operation conducted at the Site.
- The soil samples collected from AUS-SB-2 at 5 and 7.5 feet bgs confirm impacts in vadose zone soils from PL-2 at 4 feet bgs have attenuated or remediated through AS/SVE operations conducted at the Site.

Soil analytical results are presented in **Table 1** and **Figure 3**. The laboratory analytical report and chain-of-custody documentation are included in **Attachment B**.

Installation of Monitoring Wells

Between July 28, 2014 and July 30, 2014, ARCADIS advanced three soil borings that were completed as monitoring wells MW-11, MW-12 and MW-13. The monitoring wells were advanced to support the delineation of groundwater impacts at the Site. The monitoring wells were installed by a licensed drilling subcontractor, CDLP. Soil samples were collected from the associated soil borings during the installation of the monitoring wells. The locations of the new monitoring wells are presented on **Figure 3**.

The soil borings were cleared using an air knife and vacuum truck to reduce the potential for damage to subsurface utilities. MW-11 was cleared to a depth of 6.7 feet bgs and MW-12 and MW-13 were cleared to a depth of 7 feet bgs. The soil borings were then advanced to a total depth of 20 feet bgs by an 8-inch diameter, truck mounted hollow-stem auger drill rig. During drilling, soil samples were collected for lithological description at intervals determined by ARCADIS personnel. Investigative derived waste generated during drilling was transported off-Site by KETI to the appropriate disposal facility. Soil types and other pertinent data were recorded in the soil boring logs included in **Attachment A**.

After reaching total depth at monitoring wells MW-11, MW-12, and MW-13, Cascade installed 2-inch diameter Schedule 40 polyvinyl chloride (PVC) well casing with 15-foot sections of 0.010-inch slotted PVC screen extending from 5 to 20 feet bgs. The annular space was filled with 2/12 silica sand from total depth to 4 feet bgs, hydrated bentonite chips from 3 to 2 feet bgs, and concrete from 1 foot bgs to just below the top of the casing at 0.4 foot bgs. An 8-inch traffic rated well box was installed to match the existing grade at each location.

Soil samples were collected for laboratory analysis from MW-11 depths of 7.5 and 18.5 feet bgs, from MW-12 at depths of 5, 12.5 and 18.5 feet bgs and from MW-13 at depths of 5, 7.5 and 18.5 feet bgs. Soil samples were selected based on the observed VOCs headspace concentrations (in ppm) using PID readings and the bottom of the boring. The samples were placed in laboratory-provided, pre-cleaned sample containers, sealed, labeled, and immediately stored in a cooler with ice for transport to Eurofins under standard chain-of-custody protocol. Soil samples were analyzed for all or some of the following COCs:

- GRO Ecology Northwest Method NWTPH-Gx;
- DRO and HO by Ecology Northwest Method NWTPH-Dx, with and without silica gel cleanup (SI Gel);
- BTEX, MTBE, Ethylene Dibromide (EDB), and 1,2-Dichloroethene (EDC) by EPA Method 8260B;
- Total organic carbon solids/sludges combustion by Method 5310b – modified 2000.
- Volatile Petroleum Hydrocarbons (VPH) by Ecology Northwest Method NW-VPH;
- Extractable Petroleum Hydrocarbons (EPH) by Ecology Northwest Method NW-EPH;
- Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) and Total Naphthalenes by EPA Method 8270c - Selective Ion Monitoring (SIM);
- Total lead by EPA Method 6020.

Analytical results for the soil samples indicate concentrations of the following COCs are present above the Ecology MTCA Method A CULs:

- Benzene was detected above the MTCA Method A CUL of 0.3 milligrams per kilograms (mg/kg) at a concentration of 2.0 mg/kg in the soil sample collected from soil boring MW-12 at 12.5 feet bgs.
- The MDL for benzene in the soil sample collected from soil boring MW-13 at 7.5 feet bgs was above the MTCA Method A CUL at 0.04 mg/kg. GRO was detected in the soil sample collected from soil boring MW-13 at 7.5 feet bgs at a concentration of 100 mg/kg; which is above the MTCA Method A CUL for GRO 30 mg/kg when benzene is detected and equal to the MTCA Method A CUL of 100 mg/kg when benzene is not detected.

Analytical results from remaining soil samples collected from soil borings MW-11, MW-12, and MW-13 were not detected above the laboratory MDL or did not exceed MTCA Method A CULs. Soil analytical results are presented in **Tables 1** and **2**, and on **Figure 3**. The

laboratory analytical report and chain-of-custody documentation are included in **Attachment B**.

Well Development and Surveying

Newly installed monitoring wells MW-11, MW-12 and MW-13 were developed using a combination of surging and purging techniques on August 6, 2014 prior to conducting the third quarter groundwater monitoring event. Surging involves raising and lowering a surge block into the well. The resulting motion forces the water into the formation and loosens sediment, which is pulled from the formation into the well. Purging includes the use of a hand bailer or pump to remove water from the well. Purge water was contained in a Department of Transportation-approved 55-gallon steel drum and temporarily stored on-Site prior to transportation off-Site to the appropriate disposal facility. Between 15 and 20 gallons of purge water were removed at each monitoring well.

Following the installation and development, monitoring wells MW-11, MW-12 and MW-13 were surveyed by OTAK, Inc., a licensed surveyor in Washington State. Top of casing (toc) elevations were obtained using NAV88 Datum which will be referred to as above mean sea level (msl) for discussion purposes.

First Quarter Monitoring Event

On February 2, 2014, ARCADIS conducted the first quarterly groundwater monitoring event at the Site. During this event, monitoring wells, MW-1 through MW-7, MW-9 and MW-10 were gauged with an oil/water interface probe in order to determine groundwater elevations and the potential presence of non-aqueous phase liquid (NAPL). Gauging activities demonstrated NAPL was not present in any of these monitoring wells. Monitoring wells MW-2, MW-5, and MW-6 were sampled using low flow sampling techniques. A duplicate sample was collected from MW-6. Groundwater monitoring field data sheets are included as **Attachment C**.

The depth to groundwater during the February 2, 2014 monitoring event ranged between 7.00 feet below top of casing (btoc) in monitoring well MW-1 to 9.25 feet btoc in monitoring well MW-2. Groundwater elevations during this sampling event ranged from 18.07 feet above msl in MW-2 to 19.12 feet above msl in MW-1. Groundwater flow direction observed at the Site during this event was to the northwest.

Groundwater samples were collected in laboratory-provided bottles and placed in a cooler with ice. Samples were submitted to Eurofins under standard chain-of-custody protocols.

The laboratory analytical report and chain-of-custody documentation are included as **Attachment D**. Groundwater samples were analyzed for the following COCs:

- GRO by Ecology Northwest Method NWTPH-Gx;
- BTEX and methyl tertiary butyl ether MTBE by EPA Method 8260; and,
- Total and dissolved lead by EPA Method 6010.

Analytical results for the groundwater samples indicate concentrations of the following COCs are present above the Ecology MTCA Method A CULs:

- GRO was detected above the Method A CUL of 800 micrograms per liter ($\mu\text{g/L}$) in the groundwater samples collected from monitoring wells MW-2, MW-6 and MW-6 duplicate (Dup) at concentrations of 7,200 $\mu\text{g/L}$, and 3,400 $\mu\text{g/L}$ and 3,400 $\mu\text{g/L}$, respectively.

Remaining COCs detected above laboratory MDLs did not exceed Method A CULs. Groundwater gauging data and select analytical results are summarized in **Table 3**. A historical groundwater flow direction rose diagram is included as **Figure 4**. Groundwater contour and analytical results from the first quarter 2014 monitoring event are presented on **Figure 5**.

Second Quarter Monitoring Event

On May 14, 2014, Blaine Technical Services, Inc. (BTS), on behalf of ARCADIS, conducted the second quarterly groundwater monitoring event at the Site. During this event, MW-1 through MW-6, MW-9 and MW-10 were gauged with an oil/water interface probe in order to determine groundwater elevations and the potential presence of NAPL. Gauging activities demonstrated NAPL was not present in any of these monitoring wells. Monitoring wells MW-2, MW-5, and MW-6 were sampled using low flow sampling techniques. A duplicate sample was collected from MW-2. Field data sheets are included as **Attachment C**.

The depth to groundwater during the May 14, 2014 monitoring event ranged between 7.39 feet btoc in monitoring well MW-3 to 8.44 feet btoc in MW-5. Groundwater elevations during this sampling event ranged from 18.60 feet above msl in MW-4 to 19.49 feet above msl in MW-10. The inferred direction of groundwater flow during this event was to the northeast.

Groundwater samples were collected in laboratory-provided bottles and placed in a cooler with ice. Samples were submitted to Eurofins, under standard chain-of-custody protocols.

The laboratory analytical report and chain-of-custody documentation are included as **Attachment D**. Groundwater samples were analyzed for the following COCs:

- GRO by Ecology Northwest Method NWTPH-Gx;
- BTEX and MTBE by EPA Method 8260; and,
- Total and dissolved lead by EPA Method 6020.

Analytical results for the groundwater samples indicate concentrations of the following COCs are present above the MTCA Method A CULs:

- GRO was detected above the Method A CUL of 800 $\mu\text{g/L}$ in the groundwater samples collected from monitoring wells MW-2, MW-2 Dup, and MW-6 at concentrations of 5,200 $\mu\text{g/L}$, 5,100 $\mu\text{g/L}$ and 14,000 $\mu\text{g/L}$, respectively.

Remaining COCs detected above laboratory MDLs did not exceed Method A CULs. Groundwater gauging data and select analytical results are summarized in **Table 3**. Groundwater elevations and analytical results from the second quarter 2014 monitoring event are presented on **Figure 6**.

Third Quarterly Monitoring Event

On August 5 and 7, 2014, BTS on behalf of ARCADIS conducted the third quarterly groundwater monitoring event at the Site. During this event, monitoring wells MW-1 through MW-6 and MW-9 through MW-13 were gauged with an oil/water interface probe in order to determine groundwater elevations and the potential presence of NAPL. Gauging activities demonstrated NAPL was not present in any of these monitoring wells. On August 5, 2014 monitoring wells MW-2, MW-5, and MW-6 were sampled using low flow sampling techniques. On August 6, 2015, monitoring wells MW-11, MW-12 and MW-13 were developed as described above. On August 7, 2014 monitoring wells MW-11 through MW-13 were sampled using low flow sampling techniques. A duplicate sample was collected from MW-2. Field data sheets are included as **Attachment C**.

The depth to groundwater during the August 5, 2014 monitoring event ranged between 9.05 feet btoc in monitoring well MW-1 to 10.35 feet btoc in monitoring well MW-5. Groundwater elevations during this sampling event ranged from 17.01 feet above msl in MW-12 to 17.28 feet above msl in monitoring well MW-2. Groundwater flow direction at the Site appeared to be flowing away from the dispenser islands in all directions, however the steepest gradient was observed to the northwest.

Groundwater samples were collected in laboratory-provided bottles and placed in a cooler with ice. Samples were submitted to Eurofins, under standard chain-of-custody protocols. The laboratory analytical report and chain-of-custody documentation are included as **Attachment D**.

Groundwater samples collected were analyzed for the following COCs:

- GRO by Ecology Method NWTPH-Gx;
- BTEX and MTBE by EPA Method 8260; and,
- Total and dissolved lead by EPA Method 6020.

Analytical results for the groundwater samples indicate concentrations of the following COCs were present above the MTCA Method A CULs:

- GRO was detected above the Method A CUL of 800 µg/L in the groundwater samples collected from MW-2, MW-2 duplicate (Dup), MW-6, MW-12 and MW-13 at concentrations of 21,000 µg/L, 17,000 µg/L, 7,500 µg/L, 3,100 µg/L and 1,000 µg/L, respectively.
- Benzene was detected above the Method A CUL of 5 µg/L in the groundwater samples collected from monitoring wells MW-2, MW-2 Dup and MW-12 at concentrations of 5.7 µg/L, 6.2 µg/L and 700 µg/L, respectively.
- Ethylbenzene was detected above the Method A CUL of 700 µg/L in the groundwater samples collected from monitoring wells MW-2 and MW-2 Dup, both at a concentration of 920 µg/L.
- Total xylenes were detected above the Method A CUL of 1,000 µg/L in the groundwater samples collected from monitoring wells MW-2 and MW-2 Dup at concentrations of 2,700 µg/L and 2,600 µg/L.
- MTBE was detected above the Method A CUL of 20 µg/L in the groundwater samples collected from monitoring wells MW-12 and MW-13 at concentrations of 88 µg/L and 90 µg/L, respectively.
- Total lead was detected above the MTCA Method A CUL for lead of 15 µg/L in the groundwater sample collected monitoring well MW-11, at a concentration of 38.6 µg/L. Dissolved lead was analyzed to confirm concentrations, results of dissolved lead from the groundwater sample collected from MW-11 was 2.7 µg/l, below the MTCA Method A CUL.

Remaining COCs detected above laboratory MDLs did not exceed Method A CULs. Groundwater gauging data and select analytical results are summarized in **Table 3**.

Groundwater elevations and analytical results from the third quarter 2014 monitoring event are presented on **Figure 7**.

Fourth Quarterly Monitoring Event

On December 2, 2014, ARCADIS conducted the fourth quarterly groundwater monitoring event at the Site. During this event, MW-1 through MW-7 and MW-9 through MW-13 were gauged with an oil interface probe in order to determine groundwater elevations and the potential presence of NAPL. Gauging activities demonstrated NAPL was not present in any of these monitoring wells. Monitoring wells MW-2, MW-5, MW-6 and MW-11 through MW-13 were sampled using low-flow sampling techniques. A duplicate sample was collected from MW-2. Field data sheets are included as **Attachment C**.

The depth to groundwater during the December 2, 2014 sampling event ranged between 7.61 feet btoc in monitoring well MW-1 to 9.01 feet btoc in monitoring well MW-5. Groundwater elevations during this sampling event ranged from 18.27 feet above msl in monitoring well MW-12 to 19.05 feet above msl in monitoring well MW-3. Groundwater at the Site appeared to be flowing away from the dispenser islands in all directions, however the steepest gradient was observed to the northwest.

Groundwater samples were collected in laboratory-provided bottles and placed in a cooler with ice. Samples were submitted to Lancaster Laboratories Environmental in Lancaster, Pennsylvania, under standard chain-of-custody protocols. The laboratory analytical report and chain-of-custody documentation are included as **Attachment D**. Groundwater samples were analyzed for the following COCs:

- GRO by Ecology Method NWTPH-Gx;
- DRO and HO by Ecology Method NWTPH-Dx, with and without Si-Gel;
- BTEX and MTBE by EPA Method 8260; and,
- Total lead by EPA Method 60120.

Analytical results for the groundwater samples indicate concentrations of the following COCs were present above MTCA Method A CULs:

- GRO was detected above the Method A CUL of 800 $\mu\text{g/L}$ in the groundwater samples collected from monitoring wells MW-2, MW-2 Dup, MW-6, MW-12 and MW-13 at concentrations of 8,900 $\mu\text{g/L}$, 9,300 $\mu\text{g/L}$, 8,500 $\mu\text{g/L}$, 2,000 $\mu\text{g/L}$ and 11,000 $\mu\text{g/L}$, respectively.

- DRO was detected above the Method A CUL of 500 µg/L in the groundwater samples collected from monitoring wells MW-2, MW-2 Dup, MW-6 and MW-13 at concentrations of 3,300 µg/L, 2,400 µg/L, 2,200 µg/L, and 950 µg/L.
- Benzene was detected above the Method A CUL of 5 µg/L in the groundwater sample collected from monitoring well MW-12 at a concentration of 310 µg/L.
- MTBE was detected above the Method A CUL of 20 µg/L in the groundwater samples collected from monitoring wells MW-5, MW-12 and MW-13 at concentrations of 31 µg/L, 96 µg/L and 25 µg/L, respectively.

Remaining COCs detected above laboratory MDLs did not exceed Method A CULs. Groundwater gauging data and select analytical results are summarized in **Table 3**. Groundwater elevations and analytical results from the fourth quarter 2014 monitoring event are presented on **Figure 8**. Analytical results for DRO and HO analyzed with and without Si Gel is summarized in **Table 4**.

Summary

ARCADIS will continue to conduct groundwater monitoring at the Site in 2015 on a semi-annual basis with the first event to be conducted in the second quarter of 2015. ARCADIS will evaluate the hydrogeological conditions at the site for the purpose of supporting the generation of site specific Method B CULs. ARCADIS will continue to meet with the Department of Ecology to discuss the strategy for continued remedial action at the site towards reaching conditions that would satisfy the requirement outline in MTCA for achieving a No Further Action (NFA) Determination. Should you have any questions pertaining to this report please contact Alan Kahal at (484)-688-0388.

Sincerely,

ARCADIS U.S., Inc.

Alan Kahal
 Project Manager

Rebecca Andresen, L.G.
 Associate Vice President



Rebecca K. Andresen

cc: Hadi Kerawala

Attachments:

| | |
|--------------|--|
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| Table 2 | Soil Analytical Results – EPH, VPH, cPAHs, Total Naphthalenes |
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| Attachment A | Soil Boring Logs |
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| Attachment C | Groundwater Monitoring Field Data Sheet |
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ARCADIS

Tables

**Table 1
Current and Historical Soil Analytical Results
WA-05544**

19918 68th Avenue South, Kent, WA 98032

All analytical results are presented in milligrams per liter (mg/kg)

| Sample ID | Date Collected | Sample Depth (feet) | GRO | DRO | HO | Benzene | Toluene | Ethylbenzene | Total Xylenes | MTBE | EDB | EDC | Total Lead |
|---|----------------|---------------------|---------------|-------|-------|---------------|--------------|--------------|---------------|----------|---------|---------|------------|
| Model Toxics Control Act (MTCOA) Method A Cleanup Levels (CULs) mg/kg | | | 30/100 | 2,000 | 2,000 | 0.03 | 7 | 6 | 9 | 0.1 | | | 250 |
| 5544-1/9-DIS-1-4 | 1/9/2002 | 4 | <5.00 | -- | -- | <0.0300 | <0.0500 | <0.0500 | <0.100 | <0.100 | -- | -- | 2.98 |
| 5544-1/9-DIS-2-4 | 1/9/2002 | 4 | 19.7 | -- | -- | <0.0300 | 0.0515 | <0.0500 | 0.198 | <0.100 | -- | -- | 18.7 |
| 5544-1/9-DIS-3-3.5 | 1/9/2002 | 3.5 | 20.4 | -- | -- | 0.353 | 0.0862 | 0.656 | 1.25 | <0.100 | -- | -- | 25.9 |
| 5544-1/9-DIS-4-3.5 | 1/9/2002 | 3.5 | 162 | -- | -- | 1.89 | 4.06 | 3.7 | 27.5 | <1.00 | -- | -- | 33.7 |
| 5544-1/9-PL-1-3.5 | 1/9/2002 | 3.5 | 6.35 | -- | -- | 0.353 | 0.0523 | 0.297 | 1.03 | <0.100 | -- | -- | 10.3 |
| 5544-1/9-PL-2-4 | 1/9/2002 | 4 | 59.3 | -- | -- | 1.65 | 2.23 | 2.31 | 10.5 | <0.200 | -- | -- | 7.85 |
| 5544-1/9-PL-3-4 | 1/9/2002 | 4 | 7.52 | -- | -- | 0.388 | <0.0500 | 0.346 | 1.35 | <0.100 | -- | -- | 6.43 |
| 5544-1/9-STK-1 ¹ | 1/9/2002 | NA | <5.00 | -- | -- | <0.0300 | <0.0500 | <0.0500 | <0.100 | <0.100 | -- | -- | 3.2 |
| 5544-1/9-STK-2 ¹ | 1/9/2002 | NA | <5.00 | -- | -- | <0.0300 | <0.0500 | <0.0500 | <0.100 | <0.100 | -- | -- | 4.48 |
| 5544-1/9-STK-3 ¹ | 1/9/2002 | NA | 8.69 | -- | -- | 0.0696 | <0.0500 | 0.188 | 1.14 | <0.100 | -- | -- | 5.51 |
| MW-1 | 2/12/2002 | 5 | <5.00 | -- | -- | <0.0300 | <0.0500 | <0.0500 | <0.100 | <0.100 | -- | -- | 1.69 |
| MW-1 | 2/12/2002 | 10 | <5.00 | -- | -- | <0.0300 | <0.0500 | <0.0500 | <0.100 | <0.100 | -- | -- | 4.92 |
| MW-2 | 2/12/2002 | 5 | 508 | -- | -- | 2.93 | 11 | 14.8 | 68.4 | <1.00 | -- | -- | 3.07 |
| MW-2 | 2/12/2002 | 10 | 44.8 | -- | -- | 10.8 | 0.23 | 3.89 | 6.91 | <1.00 | -- | -- | 5.33 |
| MW-3 | 2/12/2002 | 5 | <5.00 | -- | -- | <0.0300 | <0.0500 | <0.0500 | <0.100 | <0.100 | -- | -- | 1.69 |
| MW-3 | 2/12/2002 | 10 | <5.00 | -- | -- | <0.0300 | <0.0500 | <0.0500 | <0.100 | <0.100 | -- | -- | 1.91 |
| MW-4 | 2/12/2002 | 5 | <5.00 | -- | -- | <0.0300 | <0.0500 | <0.0500 | <0.100 | <0.100 | -- | -- | 1.45 |
| MW-4 | 2/12/2002 | 10 | <5.00 | -- | -- | <0.0300 | <0.0500 | <0.0500 | <0.100 | <0.100 | -- | -- | 4.31 |
| MW-5 | 2/12/2002 | 5 | 5.45 | -- | -- | 0.0388 | <0.0500 | 0.125 | 0.659 | <0.100 | -- | -- | 4.3 |
| MW-5 | 2/12/2002 | 10 | 65.5 | -- | -- | 0.358 | 3.01 | 3.52 | 13.2 | <0.200 | -- | -- | 4.09 |
| MW-6 | 2/13/2002 | 5 | 16,000 | -- | -- | 183 | 1,500 | 499 | 2,450 | <1.00 | -- | -- | 2.39 |
| MW-6 | 2/13/2002 | 10 | 111 | -- | -- | 13.9 | 22.7 | 2.73 | 14.4 | <1.00 | -- | -- | 3.03 |
| MW-7-7 | 4/7/2003 | 7 | <5.00 | -- | -- | <0.0300 | <0.0500 | <0.0500 | <0.100 | <0.100 | -- | -- | 1.34 |
| MW-8-7 | 4/7/2003 | 7 | <5.00 | -- | -- | <0.0300 | <0.0500 | <0.0500 | <0.100 | <0.100 | -- | -- | 6.31 |
| MW-9-7 | 4/7/2003 | 7 | <5.00 | -- | -- | <0.0300 | <0.0500 | <0.0500 | <0.100 | <0.100 | -- | -- | 3.05 |
| MW-10-5 | 4/8/2003 | 5 | <5.00 | -- | -- | <0.0300 | <0.0500 | <0.0500 | <0.100 | <0.100 | -- | -- | 13.1 |
| MW-10-7 | 4/8/2003 | 7 | <5.00 | -- | -- | <0.0300 | <0.0500 | <0.0500 | <0.100 | <0.100 | -- | -- | 3.79 |
| MW-11-7.5 | 7/30/2014 | 7.5 | 3.6 J | 630 | 470 | 0.00089 J | <0.0013 | 0.0033 J | 0.026 | <0.00064 | <0.0013 | <0.0013 | 0.715 J |

**Table 1
Current and Historical Soil Analytical Results
WA-05544**

19918 68th Avenue South, Kent, WA 98032

All analytical results are presented in milligrams per liter (mg/kg)

| Sample ID | Date Collected | Sample Depth (feet) | GRO | DRO | HO | Benzene | Toluene | Ethylbenzene | Total Xylenes | MTBE | EDB | EDC | Total Lead |
|--|----------------|---------------------|--------------|-------|-------|------------------|----------|--------------|---------------|----------|--------|--------|------------|
| Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) mg/kg | | | 30/100 | 2,000 | 2,000 | 0.03 | 7 | 6 | 9 | 0.1 | | | 250 |
| MW-11-18.5 | 7/30/2014 | 18.5 | <1.4 | <3.8 | <13 | <0.00055 | <0.0011 | <0.0011 | <0.0011 | <0.00055 | -- | -- | -- |
| MW-12-5 | 7/28/2014 | 5 | <1.4 | <4.1 | <14 | 0.0010 J | <0.0011 | <0.0011 | <0.0011 | <0.00056 | -- | -- | 6.65 |
| MW-12-12.5 | 7/30/2014 | 12.5 | 12 | <3.9 | <13 | 2.0 | <0.072 | 2.9 | 6.4 | <0.036 | <0.072 | <0.072 | 1.36 J |
| MW-12-18.5 | 7/30/2014 | 18.5 | <1.5 | <4.1 | <14 | 0.0015 J | <0.0012 | <0.0012 | <0.0012 | 0.032 | -- | -- | -- |
| MW-13-5 | 7/28/2014 | 5 | <1.5 | <4.0 | 17 J | 0.0031 J | <0.0013 | <0.0013 | <0.0013 | <0.00064 | -- | -- | 6.33 |
| MW-13-7.5 | 7/30/2014 | 7.5 | 100 | 7.7 J | <14 | <0.040 | <0.079 | <0.079 | 0.29 J | <0.040 | <0.079 | <0.079 | 1.23 J |
| MW-13-18.5 | 7/30/2014 | 18.5 | <1.7 | <4.2 | <14 | 0.0019 J | 0.0017 J | <0.0014 | <0.0014 | <0.000 | -- | -- | -- |
| AS-1-5 | 4/8/2003 | 5 | 84.9 | -- | -- | 0.449 | 2.78 | 1.89 | 11.8 | <1.00 | -- | -- | 4.90 |
| AS-1-7 | 4/8/2003 | 7 | 3,290 | -- | -- | 21.2 | 291 | 105 | 533 | <1.00 | -- | -- | 1.73 |
| SVE-1-7 | 4/7/2003 | 7 | <5.00 | -- | -- | <0.0300 | <0.0500 | <0.0500 | <0.100 | <0.100 | -- | -- | 1.99 |
| AUS-HB-1 (3.5') | 7/20/2010 | 3.5 | <4.8 | -- | -- | <0.019 | <0.048 | <0.048 | <0.048 | <0.048 | -- | -- | 11 |
| AUS-HB-1 (5') | 7/20/2010 | 5 | <6.3 | -- | -- | <0.025 | <0.063 | <0.063 | <0.063 | <0.063 | -- | -- | 3.4 |
| AUS-HB-2 (3.5-4') | 7/20/2010 | 3.5-4 | <5.1 | -- | -- | <0.020 | <0.051 | <0.051 | <0.051 | <0.051 | -- | -- | 3.3 |
| AUS-HB-2 (5') | 7/20/2010 | 5 | <5.6 | -- | -- | <0.023 | <0.056 | <0.056 | <0.056 | <0.056 | -- | -- | 4.5 |
| AUS-HB-4-5 | 7/28/2014 | 5 | 2.6 J | <3.7 | <12 | 0.0058 J | 0.0033 J | <0.0013 | 0.019 | <0.00064 | -- | -- | -- |
| AUS-SB-1-7.5 | 7/29/2014 | 7.5 | 5.8 J | <3.8 | <13 | 0.0071 | 0.0016 J | <0.0013 | 0.0014 J | <0.00063 | -- | -- | -- |
| AUS-SB-1-12.5 | 7/30/2014 | 12.5 | <1.4 | <3.8 | <13 | 0.0014 J | <0.0011 | <0.0011 | <0.0011 | <0.00056 | -- | -- | -- |
| AUS-SB-2-5 | 7/29/2014 | 5 | <1.4 | <3.6 | 21 J | 0.00099 J | <0.0012 | <0.0012 | <0.0012 | <0.00060 | -- | -- | -- |
| AUS-SB-2-7.5 | 7/29/2014 | 7.5 | <1.7 | <4.1 | <14 | 0.0015 J | <0.0012 | <0.0012 | <0.0012 | <0.00061 | -- | -- | -- |
| AUS-SB-2-12 | 7/29/2014 | 12 | <1.8 | <4.4 | <15 | 0.0018 J | <0.0012 | <0.0012 | <0.0012 | <0.00058 | -- | -- | -- |

Notes:

BTEX = benzene, toluene, ethylbenzene, and total xylenes.

EPA = Environmental Protection Agency

MTBE = methyl tertiary butyl ether.

GRO = Total Petroleum Hydrocarbons - gasoline range organics

DRO = Total Petroleum Hydrocarbons - diesel range organics

HO = Total Petroleum Hydrocarbons - heavy oil range organics

MTCA = Model Toxics Control Act

< = not detected above laboratory reporting limits

-- = not applicable

J = estimated value – The result is greater than or equal to the Method Detection Limit (MDL) and less than the Limit of Quantitation (LOQ)

GRO analyzed by method NWTPH-Gx

BTEX, MTBE analyzed by EPA Method 8260B

Total Lead analyzed by EPA Method 6020

GRO analyzed by Northwest Method NWTPH-Gx

DRO and HO analyzed by Northwest Method NWTPH-Dx

¹ STK-1 through 3 represents stocked piled soil that has been removed from the site.

Table 2
Soil Analytical Results - EPH, VPH, cPAH, Total Naphthalenes
WA-05544

19918 68 Avenue South, Kent Washington

All analytical results are in milligrams per kilogram (mg/kg)

| Sample ID | Date | Depth (feet) | Volatile Petroleum Hydrocarbons (VPH) | | | | Extractable Petroleum HydroCarbons (EPH) | | | | | | | | cPAHs ¹ | Total Naphthalenes ² |
|------------|-----------|--------------|---------------------------------------|------------------------------|-------------------------------|------------------------------|--|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|---------------------------------|
| | | | C5-C6 Aliphatic Hydrocarbons | C6-C8 Aliphatic Hydrocarbons | C8-C10 Aliphatic Hydrocarbons | C8-C10 Aromatic Hydrocarbons | >C10-C12 Aliphatic | >C10-C12 Aromatic | >C12-C16 Aliphatic | >C12-C16 Aromatic | >C16-C21 Aliphatic | >C16-C21 Aromatic | >C21-C34 Aliphatic | >C21-C34 Aromatic | | |
| MW-11-7.5 | 7/30/2014 | 7.5 | <3.89 | <3.89 | 12.8 | 8.79 | 2.4 J | <1.4 | 10 | 2.5 J | 11 | 3.8 J | <8.4 | <2.8 | 0.001 | 0.0441 |
| MW-12-12.5 | 7/30/2014 | 12.5 | <4.73 | <4.73 | <4.73 | 6.19 J | <1.3 | <1.3 | <1.3 | <1.3 | <3.9 | <2.6 | <7.8 | <2.6 | 0.001 | 0.0077 |
| MW-13-7.5 | 7/30/2014 | 7.5 | <4.03 | <4.03 | 21.7 | 22.7 | 8.2 | 7.4 | 4.9 J | 5.9 J | <4.2 | 6.4 J | <8.3 | <2.8 | 0.002 | 0.72 |

Notes:

EPA - United State Environmental Protection Agency

VPH = Volatile Petroleum Hydrocarbons - Analyzed by Northwest Method NW-VPH

EPH = Extractable Petroleum Hydrocarbons - Analyzed by Northwest Method NW-EPH

cPAHs = Carcenogenic Polycyclic Aromatic Hydrocarbons and total Naphthalenes are analyzed by EPA Method 8270 Selective Ion Monitoring (SIM)

WAC = Washington State Administrative Code

< = not detected above laboratory reporting limits

J = estimated value – The result is greater than or equal to the Method Detection Limit (MDL) and less than the Limit of Quantitation (LOQ)

¹ cPAHs are calculated by adding the sum total of benzo[a]pyrene, benzo[a]anthracene, benzo[b]fluoranthene, benzo[k]fluoranthene, chrysene, dibenz[a,h]anthracene and indeno[1,2,3-cd]pyrene, each compared the toxicity equivalent factor provided in WAC 173-340-708(e)

² Total Naphthalenes is a sum total of 1methyl-naphthalene, 2-methyl-naphthalene, and naphthalenes

**Table 3
Groundwater Gauging Data and Select Analytical Results
WA-05544**

19918 68th Avenue South, Kent, WA 98032

All analytical results are presented in micrograms per liter (µg/L)

| Well | Date | Notes | TOC | DTW | NAPL | GWE | GRO | DRO | HO | Benzene | Toluene | Ethylbenzene | Total Xylenes | MTBE | EDB | EDC | Total Lead | Dissolved Lead |
|--|------------|-----------|--------|-------|------|--------|-----------|-----|-----|---------|---------|--------------|---------------|---------|-------|-------|------------|----------------|
| Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L | | | | | | | 800/1,000 | 500 | 500 | 5 | 1,000 | 700 | 1,000 | 20 | 0.01 | 5 | 15 | 15 |
| MW-1 | 3/12/2002 | (P) | 196.78 | 7.45 | 0.0 | 189.33 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 19.1 | <1.00 |
| MW-1 | 8/30/2002 | (P) | 196.78 | 10.10 | 0.0 | 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 | (P) | 196.78 | 6.75 | 0.0 | 190.03 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 2.3 | <1.00 |
| MW-1 | 4/22/2003 | (NS) | 196.78 | 8.62 | 0.0 | 188.16 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | 6/30/2003 | (P) | 196.78 | 9.57 | 0.0 | 187.21 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | <1.00 | <1.00 |
| MW-1 | 9/15/2003 | (P) | 196.78 | 10.27 | 0.0 | 186.51 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | <1.00 | <1.00 |
| MW-1 | 12/30/2003 | (P) | 196.78 | 8.75 | 0.0 | 188.03 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | <1.00 | <1.00 |
| MW-1 | 7/13/2004 | (NS) | 196.78 | 9.85 | 0.0 | 186.93 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | 11/1/2004 | (NP) | 196.78 | 9.60 | 0.0 | 187.18 | <80.0 | -- | -- | <0.200 | <0.500 | <0.500 | <1.00 | <2.00 | -- | -- | <1.00 | -- |
| MW-1 | 3/3/2005 | (NP) | 196.78 | 9.11 | 0.0 | 187.67 | <80.0 | -- | -- | <0.200 | <0.500 | <0.500 | <1.00 | <2.00 | -- | -- | <1.00 | -- |
| MW-1 | 6/12/2005 | (NP) | 196.78 | 8.88 | 0.0 | 187.90 | <80.0 | -- | -- | <0.200 | <0.500 | <0.500 | <1.00 | <2.00 | -- | -- | <1.00 | -- |
| MW-1 | 8/28/2005 | (NS) | 196.78 | 10.13 | 0.0 | 186.65 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | 11/17/2005 | (NS) | 196.78 | 8.88 | 0.0 | 187.90 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | 3/5/2006 | (NS) | 196.78 | 8.49 | 0.0 | 188.29 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | 10/24/2006 | (NS) | 196.78 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | 3/22/2007 | (NS) | 196.78 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | 5/30/2007 | (NS) | 196.78 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | 9/4/2007 | (NS) | 196.78 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | 11/13/2007 | (NS) | 196.78 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | 3/12/2008 | (NP) | 196.78 | 8.90 | 0.0 | 187.88 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-1 | 6/9/2008 | (NP) | 196.78 | 8.74 | 0.0 | 188.04 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-1 | 8/6/2008 | (NS) | 196.78 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | 10/8/2008 | (NS) | 196.78 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | 1/15/2009 | (NP) | 196.78 | 6.64 | 0.0 | 190.14 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-1 | 4/2/2009 | (NP) | 196.78 | 7.89 | 0.0 | 188.89 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | <1.00 | <1.00 |
| MW-1 | 10/14/2009 | (NS) | 196.78 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | 3/22/2010 | (NP) | 26.12 | 7.70 | -- | 18.42 | <50 | -- | -- | <1.0 | <1.0 | <1.0 | <3 | <1.0 | -- | -- | -- | -- |
| MW-1 | 6/22/2010 | (NP) | 26.12 | 7.14 | -- | 18.98 | <50 | -- | -- | <0.50 | <0.50 | <0.50 | <1.0 | <1.0 | -- | -- | -- | -- |
| MW-1 | 6/22/2010 | (Dup)(NP) | 26.12 | 7.14 | -- | 18.98 | <50 | -- | -- | <0.50 | <0.50 | <0.50 | <1.0 | <1.0(H) | -- | -- | -- | -- |
| MW-1 | 3/10/2011 | (NP) | 26.12 | 5.82 | 0.0 | 20.30 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <20.0 | <10.0 |
| MW-1 | 9/19/2011 | (NP) | 26.12 | 8.73 | 0.0 | 17.39 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-1 | 3/16/2012 | (NP) | 26.12 | 5.58 | 0.0 | 20.54 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-1 | 7/26/2012 | (NS) | 26.12 | 8.67 | 0.0 | 17.45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | 3/1/2013 | (NS) | 26.12 | 7.91 | 0.0 | 18.21 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | 5/22/2013 | (NS) | 26.12 | 8.08 | 0.0 | 18.04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | 7/24/2013 | (NS) | 26.12 | 9.45 | 0.0 | 16.67 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | 10/4/2013 | (NS) | 26.12 | 6.63 | 0.0 | 19.49 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | 2/12/2014 | (NS) | 26.12 | 7.00 | 0.0 | 19.12 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | 5/14/2014 | (NS) | 26.12 | 7.51 | 0.0 | 18.61 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | 8/5/2014 | (NS) | 26.12 | 9.05 | 0.0 | 17.07 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | 12/2/2014 | (NS) | 26.12 | 7.61 | 0.0 | 18.51 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-2 | 3/12/2002 | (P) | 198.02 | 8.60 | 0.0 | 189.42 | 201,000 | -- | -- | 40,800 | 39,700 | 4,240 | 19,900 | 2,250 | -- | -- | 50.4 | <1.00 |
| MW-2 | 8/30/2002 | (P) | 198.02 | 11.04 | 0.0 | 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 | (P) | 198.02 | 8.45 | 0.0 | 189.57 | 47,900 | -- | -- | 12,800 | 2,550 | 1,680 | 4,870 | 1,950 | -- | -- | 13.9 | <1.00 |

**Table 3
Groundwater Gauging Data and Select Analytical Results
WA-05544**

19918 68th Avenue South, Kent, WA 98032

All analytical results are presented in micrograms per liter (µg/L)

| Well | Date | Notes | TOC | DTW | NAPL | GWE | GRO | DRO | HO | Benzene | Toluene | Ethylbenzene | Total Xylenes | MTBE | EDB | EDC | Total Lead | Dissolved Lead |
|--|------------|------------|--------|-------|------|--------|-----------|-------|--------|---------|---------|--------------|---------------|---------|------|-----|------------|----------------|
| Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L | | | | | | | 800/1,000 | 500 | 500 | 5 | 1,000 | 700 | 1,000 | 20 | 0.01 | 5 | 15 | 15 |
| MW-2 | 4/22/2003 | (NS) | 198.02 | 9.31 | 0.0 | 188.71 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-2 | 6/30/2003 | (P) | 198.02 | 10.43 | 0.0 | 187.59 | 51,000 | -- | -- | 12,100 | 2,500 | 2,290 | 5,720 | 2,370 | -- | -- | 52.9 | 9.95 |
| MW-2 | 9/15/2003 | (P) | 198.02 | 11.33 | 0.0 | 186.69 | 33,600 | -- | -- | 6,000 | 1,390 | 1,840 | 4,320 | 1,590 | -- | -- | 14.7 | <1.00 |
| MW-2 | 12/30/2003 | (P) | 198.02 | 9.36 | 0.0 | 188.66 | 74,000 | -- | -- | 10,100 | 12,800 | 1,980 | 8,510 | 1,070 | -- | -- | 8.74 | <1.00 |
| MW-2 | 7/13/2004 | (NP) | 198.02 | 10.71 | 0.0 | 187.31 | 68,200 | -- | -- | 12,700 | 3,890 | 1,710 | 6,860 | 1,630 | -- | -- | <1.00 | <1.00 |
| MW-2 | 11/1/2004 | (NP) | 198.02 | 9.11 | 0.0 | 188.91 | <80.0 | -- | -- | 25.5 | <1.00 | <1.00 | <2.00 | 355 | -- | -- | <1.00 | -- |
| MW-2 | 3/3/2005 | (NP) | 198.02 | 12.20 | 0.0 | 185.82 | <80.0 | -- | -- | <0.400 | <1.00 | <1.00 | <2.00 | 229 | -- | -- | 1.82 | -- |
| MW-2 | 6/12/2005 | (NP) | 198.02 | 10.00 | 0.0 | 188.02 | 4,020 | -- | -- | 616 | 33 | 523 | 490 | 117 | -- | -- | <1.00 | -- |
| MW-2 | 8/28/2005 | (NP) | 198.02 | 11.14 | 0.0 | 186.88 | 5,400 | -- | -- | 1,500 | 3.57 | 66.6 | 63.9 | 229 | -- | -- | <1.00 | -- |
| MW-2 | 11/17/2005 | (NP) | 198.02 | 10.25 | 0.0 | 187.77 | <50.0 | -- | -- | 0.72 | <0.500 | <0.500 | <1.00 | 106 | -- | -- | <1.00 | -- |
| MW-2 | 3/5/2006 | (NP) | 198.02 | 9.05 | 0.0 | 188.97 | 69.2 | -- | -- | 3.14 | <0.500 | 1.59 | 2.98 | 46.5 | -- | -- | <1.00 | -- |
| MW-2 | 10/24/2006 | (P) | 198.02 | 11.08 | 0.0 | 186.94 | 733 | -- | -- | 84.3 | 1.18 | 66.1 | 10.6 | 358 | -- | -- | -- | -- |
| MW-2 | 3/22/2007 | (P) | 198.02 | 8.43 | 0.0 | 189.59 | 51,900 | -- | -- | 2,380 | 4,810 | 3,350 | 13,700 | <100 | -- | -- | -- | -- |
| MW-2 | 5/30/2007 | (P) | 198.02 | 9.97 | 0.0 | 188.05 | 51,900 | -- | -- | 1,650 | 3,390 | 2,360 | 7,650 | 119 | -- | -- | -- | -- |
| MW-2 | 9/4/2007 | (P) | 198.02 | 10.22 | 0.0 | 187.80 | 81,900 | -- | -- | 1,480 | 221 | 3,120 | 24,100 | 131 | -- | -- | -- | -- |
| MW-2 | 11/13/2007 | (P) | 198.02 | 10.32 | 0.0 | 187.70 | 21,200 | -- | -- | 426 | 89.9 | 594 | 1,760 | 65.5 | -- | -- | -- | -- |
| MW-2 | 3/12/2008 | (NP) | 198.02 | 9.15 | 0.0 | 188.87 | 91,100 | -- | -- | 304 | 2,240 | 3,750 | 16,700 | 6.41 | -- | -- | -- | -- |
| MW-2 | 6/9/2008 | (NP) | 198.02 | 6.65 | 0.0 | 191.37 | 22,100 | -- | -- | 11.7 | 963 | 632 | 3,360 | <1.00 | -- | -- | -- | -- |
| MW-2 | 8/6/2008 | (NP) | 198.02 | 10.60 | 0.0 | 187.42 | 61,200 | -- | -- | 268 | 1,510 | 3,400 | 16,500 | 1.48 | -- | -- | -- | -- |
| MW-2 | 10/8/2008 | (NP) | 198.02 | 10.41 | 0.0 | 187.61 | 52,300 | -- | -- | 127 | 172 | 2,120 | 10,600 | <1.00 | -- | -- | -- | -- |
| MW-2 | 1/15/2009 | (NP) | 198.02 | 8.00 | 0.0 | 190.02 | 34,700 | -- | -- | 361 | 308 | 1,540 | 5,100 | 21.8 | -- | -- | -- | -- |
| MW-2 | 4/2/2009 | (NP) | 198.02 | 8.89 | 0.0 | 189.13 | 81,600 | -- | -- | 90.3 | 1,120 | 3,590 | 18,700 | <10 | -- | -- | <1.00 | <1.00 |
| MW-2 | 10/14/2009 | (NP) | 198.02 | 9.86 | 0.0 | 188.16 | 45,000 | -- | -- | 98 | 38 | 2,300 | 8,000 | <1.00 | -- | -- | <2.00 | -- |
| MW-2 | 3/22/2010 | (NP) | 27.32 | 8.66 | -- | 18.66 | 84,000 | -- | -- | 43 | 490 | 3,400 | 15,000 | <1.0 | -- | -- | -- | -- |
| MW-2 | 6/22/2010 | (NP, H) | 27.32 | 8.16 | -- | 19.16 | 69,000 | -- | -- | 30 | 1,600 | 3,000 | 13,000 | <50(H) | -- | -- | -- | -- |
| MW-2 | 3/10/2011 | (NP) | 27.32 | 7.19 | 0.0 | 20.13 | 47,800 | -- | -- | 19.9 | 548 | 2,380 | 9,250 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-2 | 9/19/2011 | (NP) | 27.32 | 10.45 | 0.0 | 16.87 | 37,000 | -- | -- | 66.0 | 10.9 | 2,210 | 2,410 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-2 | 3/16/2012 | (NP) | 27.32 | 7.19 | 0.0 | 20.13 | 30,800 | -- | -- | 32.5 | 17.5 | 1,960 | 3,050 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-2 | 7/26/2012 | (NP) | 27.32 | 9.78 | 0.0 | 17.54 | 42,600 | -- | -- | 49.6 | 9.5 | 2,090 | 4,330 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-2 | 3/1/2013 | (NP) | 27.32 | 9.60 | 0.0 | 17.72 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | -- | -- | <3.0 | <10.0 |
| MW-2 | 3/1/2013 | (Dup)(NP) | 27.32 | 9.60 | 0.0 | 17.72 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | -- | -- | -- | -- |
| MW-2 | 5/22/2013 | (NP) | 27.32 | 9.58 | 0.0 | 17.74 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | 1.1 | -- | -- | <10.0 | <10.0 |
| MW-2 | 5/22/2013 | (Dup)(NP) | 27.32 | 9.58 | 0.0 | 17.74 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | 1.2 | -- | -- | -- | -- |
| MW-2 | 7/24/2013 | (NP) | 27.32 | 10.38 | 0.0 | 16.94 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-2 | 7/24/2013 | (Dup)(NP) | 27.32 | 10.38 | 0.0 | 16.94 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | -- | -- |
| MW-2 | 10/4/2013 | (LFP) | 27.32 | 8.55 | 0.0 | 18.77 | <100 | -- | -- | 2.4 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-2 | 2/12/2014 | (LFP) | 27.32 | 9.25 | 0.0 | 18.07 | 7,200 | -- | -- | 2.7(J) | 0.71(J) | 430 | 590 | <0.50 | -- | -- | <4.7 | <4.7 |
| MW-2 | 5/14/2014 | (LFP) | 27.32 | 7.98 | 0.0 | 19.34 | 5,200 | -- | -- | 2.6 | 0.79(J) | 210 | 730 | <0.50 | -- | -- | 0.18(J) | <0.085 |
| MW-2 | 5/14/2014 | (Dup)(LFP) | 27.32 | 7.98 | 0.0 | 19.34 | 5,100 | -- | -- | 2.8 | 0.99(J) | 230 | 710 | <0.50 | -- | -- | 0.16(J) | 0.094(J) |
| MW-2 | 8/5/2014 | (LFP) | 27.32 | 10.04 | 0.0 | 17.28 | 21,000 | -- | -- | 5.7 | 3.9(J) | 920 | 2,700 | <2.5 | -- | -- | 0.37(J) | <0.082 |
| MW-2 | 8/5/2014 | (Dup)(LFP) | 27.32 | 10.04 | 0.0 | 17.28 | 17,000 | -- | -- | 6.2 | 4.0 | 920 | 2,600 | <1.0 | -- | -- | 0.49(J) | <0.082 |
| MW-2 | 12/2/2014 | (LFP) | 27.32 | 8.53 | 0.0 | 18.79 | 8,900 | 3,300 | 180(J) | 4.5 | 3.6 | 540 | 1,000 | <0.50 | -- | -- | 0.12(J) | -- |
| MW-2 | 12/2/2014 | (Dup)(LFP) | 27.32 | 8.53 | 0.0 | 18.79 | 9,300 | 2,400 | 220(J) | 4.1 | 2.5 | 490 | 830 | 0.59(J) | -- | -- | 0.32(J) | -- |
| MW-3 | 3/12/2002 | (P) | 197.49 | 7.90 | 0.0 | 189.59 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 55.7 | <1.00 |

**Table 3
Groundwater Gauging Data and Select Analytical Results
WA-05544**

19918 68th Avenue South, Kent, WA 98032

All analytical results are presented in micrograms per liter (µg/L)

| Well | Date | Notes | TOC | DTW | NAPL | GWE | GRO | DRO | HO | Benzene | Toluene | Ethylbenzene | Total Xylenes | MTBE | EDB | EDC | Total Lead | Dissolved Lead |
|--|------------|-----------|--------|-------|------|--------|--------------|-----|-----|-----------|---------|--------------|---------------|---------|-------|-------|-------------|----------------|
| Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L | | | | | | | 800/1,000 | 500 | 500 | 5 | 1,000 | 700 | 1,000 | 20 | 0.01 | 5 | 15 | 15 |
| MW-3 | 8/30/2002 | (P) | 197.49 | 10.50 | 0.0 | 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 | (P) | 197.49 | 7.60 | 0.0 | 189.89 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 1.8 | <1.00 |
| MW-3 | 4/22/2003 | (NS) | 197.49 | 8.60 | 0.0 | 188.89 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | 6/30/2003 | (P) | 197.49 | 9.45 | 0.0 | 188.04 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 13.4 | 3.63 |
| MW-3 | 9/15/2003 | (P) | 197.49 | 10.67 | 0.0 | 186.82 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 14 | <1.00 |
| MW-3 | 12/30/2003 | (P) | 197.49 | 8.65 | 0.0 | 188.84 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 2.17 | <1.00 |
| MW-3 | 7/13/2004 | (NS) | 197.49 | 10.27 | 0.0 | 187.22 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | 11/1/2004 | (NP) | 197.49 | 9.50 | 0.0 | 187.99 | <80.0 | -- | -- | <0.200 | <0.500 | <0.500 | <1.00 | <2.00 | -- | -- | <1.00 | -- |
| MW-3 | 3/3/2005 | (NP) | 197.49 | 8.42 | 0.0 | 189.07 | <80.0 | -- | -- | <0.200 | <0.500 | <0.500 | <1.00 | <2.00 | -- | -- | <1 | -- |
| MW-3 | 6/12/2005 | (NP) | 197.49 | 9.32 | 0.0 | 188.17 | <80.0 | -- | -- | <0.200 | <0.500 | <0.500 | <1.00 | <2.00 | -- | -- | <1.00 | -- |
| MW-3 | 8/28/2005 | (NS) | 197.49 | 10.64 | 0.0 | 186.85 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | 11/17/2005 | (NS) | 197.49 | 9.15 | 0.0 | 188.34 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | 3/5/2006 | (NS) | 197.49 | 8.28 | 0.0 | 189.21 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | 10/24/2006 | (NS) | 197.49 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | 3/22/2007 | (NS) | 197.49 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | 5/30/2007 | (NS) | 197.49 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | 9/4/2007 | (NS) | 197.49 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | 11/13/2007 | (NS) | 197.49 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | 3/12/2008 | (NP) | 197.49 | 8.85 | 0.0 | 188.64 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-3 | 6/9/2008 | (NP) | 197.49 | 7.56 | 0.0 | 189.93 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-3 | 8/6/2008 | (NP) | 197.49 | 10.07 | 0.0 | 187.42 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-3 | 10/8/2008 | (NP) | 197.49 | 9.62 | 0.0 | 187.87 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-3 | 1/15/2009 | (NP) | 197.49 | 7.15 | 0.0 | 190.34 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-3 | 4/2/2009 | (NP) | 197.49 | 8.05 | 0.0 | 189.44 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | <1.00 | <1.00 |
| MW-3 | 10/14/2009 | (NS) | 197.49 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | 3/22/2010 | (NP) | 26.83 | 7.89 | -- | 18.94 | <50 | -- | -- | <1.0 | <1.0 | <1.0 | <3 | <1.0 | -- | -- | -- | -- |
| MW-3 | 3/22/2010 | (Dup)(NP) | 26.83 | 7.89 | -- | 18.94 | <50 | -- | -- | <1.0 | <1.0 | <1.0 | <3 | <1.0 | -- | -- | -- | -- |
| MW-3 | 6/22/2010 | (NP) | 26.83 | 7.44 | -- | 19.39 | <50 | -- | -- | <0.50 | <0.50 | <0.50 | <1.0 | <1.0(H) | -- | -- | -- | -- |
| MW-3 | 3/10/2011 | (NP) | 26.83 | 7.54 | 0.0 | 19.29 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-3 | 9/19/2011 | (NP) | 26.83 | 9.41 | 0.0 | 17.42 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-3 | 3/16/2012 | (NP) | 26.83 | 6.30 | 0.0 | 20.53 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-3 | 7/26/2012 | (NS) | 26.83 | 8.90 | 0.0 | 17.93 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | 3/1/2013 | (NS) | 26.83 | 8.44 | 0.0 | 18.39 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | 5/22/2013 | (NP) | 26.83 | 8.55 | 0.0 | 18.28 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-3 | 7/24/2013 | (NS) | 26.83 | 9.87 | 0.0 | 16.96 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | 10/4/2013 | (LFP) | 26.83 | 7.72 | 0.0 | 19.11 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-3 | 2/12/2014 | (NS) | 26.83 | 8.01 | 0.0 | 18.82 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | 5/14/2014 | (NS) | 26.83 | 7.39 | 0.0 | 19.44 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | 8/5/2014 | (NS) | 26.83 | 9.57 | 0.0 | 17.26 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | 12/2/2014 | (NS) | 26.83 | 7.78 | 0.0 | 19.05 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | 3/12/2002 | (P) | 197.68 | 7.38 | 0.0 | 190.30 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 23.2 | <1.00 |
| MW-4 | 8/30/2002 | (P) | 197.68 | 10.97 | 0.0 | 186.71 | 1,400 | -- | -- | 48 | 1.05 | 0.743 | 124 | 9.57 | <0.01 | <1.00 | 61 | <1.00 |
| MW-4 | 3/24/2003 | (P) | 197.68 | 8.65 | 0.0 | 189.03 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 5.53 | <1.00 |
| MW-4 | 4/22/2003 | (NS) | 197.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 3
Groundwater Gauging Data and Select Analytical Results
WA-05544**

19918 68th Avenue South, Kent, WA 98032

All analytical results are presented in micrograms per liter (µg/L)

| Well | Date | Notes | TOC | DTW | NAPL | GWE | GRO | DRO | HO | Benzene | Toluene | Ethylbenzene | Total Xylenes | MTBE | EDB | EDC | Total Lead | Dissolved Lead |
|--|------------|---------|--------|-------|------|--------|---------------|-----|-----|---------------|--------------|--------------|---------------|--------------|-------|------|-------------|----------------|
| Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L | | | | | | | 800/1,000 | 500 | 500 | 5 | 1,000 | 700 | 1,000 | 20 | 0.01 | 5 | 15 | 15 |
| MW-4 | 6/30/2003 | (P) | 197.68 | 10.61 | 0.0 | 187.07 | 903 | -- | -- | 28.9 | <0.500 | <0.500 | 16.7 | <5.00 | -- | -- | 9.17 | 4.56 |
| MW-4 | 9/15/2003 | (P) | 197.68 | 11.16 | 0.0 | 186.52 | 848 | -- | -- | 20.5 | <0.500 | <0.500 | 3.73 | <1.00 | -- | -- | 5.15 | <1.00 |
| MW-4 | 12/30/2003 | (P) | 197.68 | 9.61 | 0.0 | 188.07 | 144 | -- | -- | 1 | <0.500 | <0.500 | 2.4 | <1.00 | -- | -- | 15.1 | <1.00 |
| MW-4 | 7/13/2004 | (NS) | 197.68 | 9.98 | 0.0 | 187.70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | 11/1/2004 | (P) | 197.68 | 10.60 | 0.0 | 187.08 | <80.0 | -- | -- | <0.200 | <0.500 | <0.500 | <1.00 | <2.00 | -- | -- | 2.3 | -- |
| MW-4 | 3/3/2005 | (NS) | 197.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | 6/12/2005 | (NP) | 197.68 | 9.78 | 0.0 | 187.90 | <80.0 | -- | -- | <0.200 | <0.500 | <0.500 | <1.00 | <2.00 | -- | -- | <1.00 | -- |
| MW-4 | 8/28/2005 | (NS) | 197.68 | 11.00 | 0.0 | 186.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | 11/17/2005 | (NP) | 197.68 | 9.81 | 0.0 | 187.87 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | <1.00 | -- |
| MW-4 | 3/5/2006 | (NS) | 197.68 | 9.31 | 0.0 | 188.37 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | 10/24/2006 | (NS) | 197.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | 3/22/2007 | (NS) | 197.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | 5/30/2007 | (NS) | 197.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | 9/4/2007 | (NS) | 197.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | 11/13/2007 | (NS) | 197.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | 3/13/2008 | (NP) | 197.68 | 9.72 | 0.0 | 187.96 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-4 | 6/9/2008 | (NP) | 197.68 | 9.55 | 0.0 | 188.13 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-4 | 8/6/2008 | (NS) | 197.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | 10/8/2008 | (NP) | 197.68 | 10.31 | 0.0 | 187.37 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-4 | 1/15/2009 | (NP) | 197.68 | 8.13 | 0.0 | 189.55 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-4 | 4/2/2009 | (NP) | 197.68 | 8.13 | 0.0 | 189.55 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | <1.00 | <1.00 |
| MW-4 | 10/14/2009 | (NS) | 197.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | 3/22/2010 | (NP) | 27.01 | 8.72 | -- | 18.29 | <50 | -- | -- | <1.0 | <1.0 | <1.0 | <3 | <1.0 | -- | -- | -- | -- |
| MW-4 | 6/22/2010 | (NP, H) | 27.01 | 8.14 | -- | 18.87 | <50 | -- | -- | <0.50 | <0.50 | <0.50 | <1.0 | <1.0(H) | -- | -- | -- | -- |
| MW-4 | 3/10/2011 | (NP) | 27.01 | 6.73 | 0.0 | 20.28 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-4 | 9/19/2011 | (NP) | 27.01 | 9.71 | 0.0 | 17.30 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-4 | 3/16/2012 | (NP) | 27.01 | 6.70 | 0.0 | 20.31 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-4 | 7/26/2012 | (NS) | 27.01 | 9.55 | 0.0 | 17.46 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | 3/1/2013 | (NS) | 27.01 | 8.86 | 0.0 | 18.15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | 5/22/2013 | (NS) | 27.01 | 8.96 | 0.0 | 18.05 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | 7/24/2013 | (NS) | 27.01 | 10.31 | 0.0 | 16.70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | 10/4/2013 | (LFP) | 27.01 | 8.15 | 0.0 | 18.86 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-4 | 2/12/2014 | (NS) | 27.01 | 8.31 | 0.0 | 18.70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | 5/14/2014 | (NS) | 27.01 | 8.41 | 0.0 | 18.60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | 8/5/2014 | (NS) | 27.01 | 9.93 | 0.0 | 17.08 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | 12/2/2014 | (NS) | 27.01 | 8.54 | 0.0 | 18.47 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-5 | 3/12/2002 | (P) | 198.21 | 8.82 | 0.0 | 189.39 | 52,100 | -- | -- | 7,210 | 3,770 | 2,670 | 9,070 | 233 | -- | -- | 124 | <1.00 |
| MW-5 | 8/30/2002 | (P) | 198.21 | 11.20 | 0.0 | 187.01 | 55,200 | -- | -- | 15,400 | 2,200 | 1,590 | 7,160 | 478 | <0.01 | <100 | 144 | <1.00 |
| MW-5 | 3/24/2003 | (P) | 198.21 | 8.70 | 0.0 | 189.51 | 48,400 | -- | -- | 19,900 | 282 | 331 | 1,230 | 1,540 | -- | -- | 14.2 | <1.00 |
| MW-5 | 4/22/2003 | (NS) | 198.21 | 9.52 | 0.0 | 188.69 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-5 | 6/30/2003 | (P) | 198.21 | 10.87 | 0.0 | 187.34 | 62,900 | -- | -- | 17,900 | 1,500 | 1,110 | 4,070 | 571 | -- | -- | 63.9 | 8.35 |
| MW-5 | 9/15/2003 | (P) | 198.21 | 11.60 | 0.0 | 186.61 | 61,600 | -- | -- | 19,300 | 554 | 1,250 | 4,640 | 520 | -- | -- | 9.75 | <1.00 |
| MW-5 | 12/30/2003 | (P) | 198.21 | 9.70 | 0.0 | 188.51 | 52,600 | -- | -- | 12,500 | 1,630 | 1,910 | 7,180 | 307 | -- | -- | 9.85 | <1.00 |
| MW-5 | 7/13/2004 | (P) | 198.21 | 10.83 | 0.0 | 187.38 | 41,800 | -- | -- | 6,090 | 3,230 | 2,680 | 10,500 | <100 | -- | -- | 2.82 | <1.00 |

**Table 3
Groundwater Gauging Data and Select Analytical Results
WA-05544**

19918 68th Avenue South, Kent, WA 98032

All analytical results are presented in micrograms per liter (µg/L)

| Well | Date | Notes | TOC | DTW | NAPL | GWE | GRO | DRO | HO | Benzene | Toluene | Ethylbenzene | Total Xylenes | MTBE | EDB | EDC | Total Lead | Dissolved Lead |
|--|------------|------------|--------|-------|------|--------|-----------|-----|-----|---------|---------|--------------|---------------|---------|-------|------|------------|----------------|
| Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L | | | | | | | 800/1,000 | 500 | 500 | 5 | 1,000 | 700 | 1,000 | 20 | 0.01 | 5 | 15 | 15 |
| MW-5 | 11/1/2004 | (NP) | 198.21 | 8.39 | 0.0 | 189.82 | 6,090 | -- | -- | 3,630 | <10.0 | 26 | 139 | 925 | -- | -- | <1.00 | -- |
| MW-5 | 3/3/2005 | (NP) | 198.21 | 10.83 | 0.0 | 187.38 | <80.0 | -- | -- | 1.8 | <2.50 | <2.50 | <5.00 | 835 | -- | -- | <1 | -- |
| MW-5 | 6/12/2005 | (NP) | 198.21 | 10.30 | 0.0 | 187.91 | 1,110 | -- | -- | 129 | 0.82 | 33.1 | 289 | 196 | -- | -- | <1.00 | -- |
| MW-5 | 8/28/2005 | (NP) | 198.21 | 11.30 | 0.0 | 186.91 | 1,330 | -- | -- | 116 | <0.500 | 112 | 53.5 | 148 | -- | -- | <1.00 | -- |
| MW-5 | 11/17/2005 | (NP) | 198.21 | 10.03 | 0.0 | 188.18 | <50.0 | -- | -- | 1.21 | <2.50 | <2.50 | <5.00 | 161 | -- | -- | 4.63 | -- |
| MW-5 | 3/5/2006 | (NP) | 198.21 | 9.23 | 0.0 | 188.98 | 143 | -- | -- | 8.54 | <0.500 | 11.4 | 2.66 | 115 | -- | -- | <1.00 | -- |
| MW-5 | 10/24/2006 | (P) | 198.21 | 14.30 | 0.0 | 183.91 | 104 | -- | -- | 1.43 | <0.500 | <0.500 | <3.00 | 91.8 | -- | -- | -- | -- |
| MW-5 | 3/22/2007 | (P) | 198.21 | 8.76 | 0.0 | 189.45 | <50.0 | -- | -- | 3.25 | <0.500 | <0.500 | <3.00 | 79 | -- | -- | -- | -- |
| MW-5 | 5/30/2007 | (P) | 198.21 | 10.19 | 0.0 | 188.02 | 3,080 | -- | -- | 2,220 | 6.83 | 1,210 | 969 | 57.6 | -- | -- | -- | -- |
| MW-5 | 9/4/2007 | (P) | 198.21 | 10.46 | 0.0 | 187.75 | 1,180 | -- | -- | 255 | <0.500 | 8.34 | 4.99 | 16 | -- | -- | -- | -- |
| MW-5 | 11/13/2007 | (P) | 198.21 | 10.73 | 0.0 | 187.48 | 225 | -- | -- | 9.92 | <0.500 | <0.500 | <3.00 | 17.4 | -- | -- | -- | -- |
| MW-5 | 3/12/2008 | (NP) | 198.21 | 9.37 | 0.0 | 188.84 | 511 | -- | -- | 45.4 | 0.5 | 4.54 | 34 | <1.00 | -- | -- | -- | -- |
| MW-5 | 6/9/2008 | (NP) | 198.21 | 8.27 | 0.0 | 189.94 | 243 | -- | -- | 4.18 | 17.9 | 3.09 | 66.7 | <1.00 | -- | -- | -- | -- |
| MW-5 | 8/6/2008 | (NP) | 198.21 | 10.74 | 0.0 | 187.47 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-5 | 10/8/2008 | (NP) | 198.21 | 10.80 | 0.0 | 187.41 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-5 | 1/15/2009 | (NP) | 198.21 | 8.29 | 0.0 | 189.92 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | 93.9 | -- | -- | -- | -- |
| MW-5 | 4/2/2009 | (NP) | 198.21 | 9.30 | 0.0 | 188.91 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | 1.39 | -- | -- | <1.00 | <1.00 |
| MW-5 | 10/14/2009 | (NP) | 198.21 | 10.30 | 0.0 | 187.91 | <50.0 | -- | -- | <1.00 | <1.00 | <1.00 | <2.00 | <1.00 | -- | -- | <2.00 | -- |
| MW-5 | 3/22/2010 | (NP) | 27.53 | 8.93 | -- | 18.60 | 64 | -- | -- | <1.0 | <1.0 | <1.0 | <3 | <1.0 | -- | -- | -- | -- |
| MW-5 | 6/22/2010 | (NP, H) | 27.53 | 8.61 | -- | 18.92 | 140 | -- | -- | <0.50 | <0.50 | <0.50 | <1.0 | <1.0(H) | -- | -- | -- | -- |
| MW-5 | 3/10/2011 | (NP) | 27.53 | 7.60 | 0.0 | 19.93 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | 1.1 | -- | -- | <10.0 | <10.0 |
| MW-5 | 9/19/2011 | (NP) | 27.53 | 10.17 | 0.0 | 17.36 | 830 | -- | -- | <1.0 | <1.0 | 3.6 | 16.6 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-5 | 3/16/2012 | (NP) | 27.53 | 7.56 | 0.0 | 19.97 | 167 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | 2.9 | -- | -- | <10.0 | <10.0 |
| MW-5 | 7/26/2012 | (NP) | 27.53 | 9.83 | 0.0 | 17.70 | 627 | -- | -- | 1.3 | <1.0 | 1.1 | 11.2 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-5 | 3/1/2013 | (NP) | 27.53 | 9.52 | 0.0 | 18.01 | 575 | -- | -- | 3.9 | <1.0 | <1.0 | 7.8 | -- | -- | -- | 6.6 | <10.0 |
| MW-5 | 5/22/2013 | (NP) | 27.53 | 9.48 | 0.0 | 18.05 | 1,020 | -- | -- | 9.5 | <1.0 | 26.0 | 45.2 | 1.3 | -- | -- | <10.0 | <10.0 |
| MW-5 | 7/24/2013 | (NP) | 27.53 | 10.59 | 0.0 | 16.94 | 589 | -- | -- | 2.1 | <1.0 | <1.0 | <3.0 | 1.1 | -- | -- | 27.4 | <10.0 |
| MW-5 | 10/4/2013 | (LFP) | 27.53 | 9.23 | 0.0 | 18.30 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | 58.0 | -- | -- | <10.0 | <10.0 |
| MW-5 | 10/4/2013 | (Dup)(LFP) | 27.53 | 9.23 | 0.0 | 18.30 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | 60.6 | -- | -- | <10.0 | <10.0 |
| MW-5 | 2/12/2014 | (LFP) | 27.53 | 8.79 | 0.0 | 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 | (LFP) | 27.53 | 8.44 | 0.0 | 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 | (LFP) | 27.53 | 10.35 | 0.0 | 17.18 | 330 | -- | -- | 1.3 | <0.50 | <0.50 | 1.8 | 1.5 | -- | -- | 0.086(J) | 0.10(J) |
| MW-5 | 12/2/2014 | (LFP) | 27.53 | 9.01 | 0.0 | 18.52 | 93(J) | 220 | <65 | <0.50 | <0.50 | <0.50 | <0.50 | 31 | -- | -- | 0.25(J) | -- |
| MW-6 | 3/12/2002 | (P) | 198.24 | 8.90 | 0.0 | 189.34 | 187,000 | -- | -- | 49,800 | 27,600 | 2,650 | 12,300 | 6,840 | -- | -- | 176 | <1.00 |
| MW-6 | 8/30/2002 | (P) | 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 | (P) | 198.24 | 8.60 | 0.0 | 189.64 | 101,000 | -- | -- | 26,800 | 7,090 | 1,690 | 7,780 | 2,480 | -- | -- | 19.7 | <1.00 |
| MW-6 | 4/22/2003 | (NS) | 198.24 | 9.33 | 0.0 | 188.91 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-6 | 6/30/2003 | (P) | 198.24 | 10.35 | 0.0 | 187.89 | 61,700 | -- | -- | 18,700 | 4,610 | 990 | 4,030 | 860 | -- | -- | 46.7 | 2.27 |
| MW-6 | 9/15/2003 | (P) | 198.24 | 11.50 | 0.0 | 186.74 | 109,000 | -- | -- | 29,000 | 8,690 | 1,720 | 7,310 | 1,390 | -- | -- | 12.6 | <1.00 |
| MW-6 | 12/30/2003 | (P) | 198.24 | 9.60 | 0.20 | 188.80 | 333,000 | -- | -- | 45,200 | 64,400 | 6,030 | 31,300 | 1,960 | -- | -- | 1.85 | <1.00 |
| MW-6 | 7/13/2004 | (NP) | 198.24 | 10.27 | 0.08 | 188.03 | 513,000 | -- | -- | 52,500 | 98,600 | 8,300 | 43,600 | 3,620 | -- | -- | <1.00 | <1.00 |
| MW-6 | 11/1/2004 | (NP) | 198.24 | 10.32 | 0.0 | 187.92 | 123 | -- | -- | 29.6 | 10.4 | <5.00 | 16.5 | 947 | -- | -- | <1.00 | -- |
| MW-6 | 3/3/2005 | (NP) | 198.24 | 13.23 | 0.0 | 185.01 | <80.0 | -- | -- | <0.400 | <1.00 | <1.00 | <2.00 | 227 | -- | -- | <1 | -- |
| MW-6 | 6/12/2005 | (NP) | 198.24 | 10.17 | 0.0 | 188.07 | 7,780 | -- | -- | 431 | 919 | 978 | 4,170 | 349 | -- | -- | <1.00 | -- |

**Table 3
Groundwater Gauging Data and Select Analytical Results
WA-05544**

19918 68th Avenue South, Kent, WA 98032

All analytical results are presented in micrograms per liter (µg/L)

| Well | Date | Notes | TOC | DTW | NAPL | GWE | GRO | DRO | HO | Benzene | Toluene | Ethylbenzene | Total Xylenes | MTBE | EDB | EDC | Total Lead | Dissolved Lead |
|--|------------|------------|--------|-------|------|--------|-----------|-------|--------|---------|---------|--------------|---------------|--------|------|-----|------------|----------------|
| Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L | | | | | | | 800/1,000 | 500 | 500 | 5 | 1,000 | 700 | 1,000 | 20 | 0.01 | 5 | 15 | 15 |
| MW-6 | 8/28/2005 | (NP) | 198.24 | 11.26 | 0.0 | 186.98 | 10,400 | -- | -- | 760 | 207 | 385 | 1,660 | 579 | -- | -- | <1.00 | -- |
| MW-6 | 11/17/2005 | (NP) | 198.24 | 10.93 | 0.0 | 187.31 | <50.0 | -- | -- | 0.6 | <0.500 | <0.500 | <1.00 | 139 | -- | -- | <1.00 | -- |
| MW-6 | 3/5/2006 | (NP) | 198.24 | 9.22 | 0.0 | 189.02 | 304 | -- | -- | <0.500 | 8.16 | 2.94 | 54.5 | 107 | -- | -- | <1.00 | -- |
| MW-6 | 10/24/2006 | (P) | 198.24 | 11.21 | 0.0 | 187.03 | 11,800 | -- | -- | 570 | 14.2 | 608 | 1,730 | 1,020 | -- | -- | -- | -- |
| MW-6 | 3/22/2007 | (P) | 198.24 | 8.55 | 0.0 | 189.69 | 41,500 | -- | -- | 1,100 | 2,380 | 2,400 | 16,300 | 961 | -- | -- | -- | -- |
| MW-6 | 5/30/2007 | (P) | 198.24 | 9.90 | 0.0 | 188.34 | 62,700 | -- | -- | 1,260 | 921 | 1,990 | 15,100 | 307 | -- | -- | -- | -- |
| MW-6 | 9/4/2007 | (P) | 198.24 | 10.41 | 0.0 | 187.83 | 91,800 | -- | -- | 1,350 | 2,500 | 3,480 | 14,900 | <100 | -- | -- | -- | -- |
| MW-6 | 11/13/2007 | (P) | 198.24 | 10.54 | 0.0 | 187.70 | 5,380 | -- | -- | 196 | <0.500 | 366 | 76.8 | 1,300 | -- | -- | -- | -- |
| MW-6 | 3/12/2008 | (NP) | 198.24 | 9.45 | 0.0 | 188.79 | 85,300 | -- | -- | 1,030 | 2,270 | 2,470 | 17,100 | 555 | -- | -- | -- | -- |
| MW-6 | 6/9/2008 | (NP) | 198.24 | 7.99 | 0.0 | 190.25 | 139,000 | -- | -- | 238 | -- | 1,580 | 164 | <1.00 | -- | -- | -- | -- |
| MW-6 | 8/6/2008 | (NP) | 198.24 | 10.56 | 0.0 | 187.68 | 69,700 | -- | -- | 678 | 34 | 2,350 | 18,900 | 22.9 | -- | -- | -- | -- |
| MW-6 | 10/8/2008 | (NP) | 198.24 | 10.58 | 0.0 | 187.66 | 68,900 | -- | -- | 470 | 24.7 | 1,130 | 12,500 | 95 | -- | -- | -- | -- |
| MW-6 | 1/15/2009 | (NP) | 198.24 | 8.21 | 0.0 | 190.03 | 22,500 | -- | -- | 182 | 10.7 | 746 | 2,550 | 687 | -- | -- | -- | -- |
| MW-6 | 4/2/2009 | (NP) | 198.24 | 9.08 | 0.0 | 189.16 | 80,100 | -- | -- | 415 | 164 | 2,240 | 18,100 | 57.6 | -- | -- | <1.00 | <1.00 |
| MW-6 | 10/14/2009 | (NP) | 198.24 | 9.25 | 0.0 | 188.99 | 71,000 | -- | -- | 580 | 15 | 3,300 | 22,000 | 41 | -- | -- | <2.00 | -- |
| MW-6 | 3/22/2010 | (NP) | 27.50 | 8.77 | -- | 18.73 | 100,000 | -- | -- | 480 | 390 | 2,500 | 19,400 | 6.2 | -- | -- | -- | -- |
| MW-6 | 6/22/2010 | (NP, H) | 27.50 | 8.39 | -- | 19.11 | 96,000 | -- | -- | 460 | 300 | 2,200 | 19,000 | <50(H) | -- | -- | -- | -- |
| MW-6 | 3/10/2011 | (NP) | 27.50 | 7.51 | 0.0 | 19.99 | 103,000 | -- | -- | 314 | 189 | 1,150 | 23,400 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-6 | 9/19/2011 | (NP) | 27.50 | 10.47 | 0.0 | 17.03 | 67,900 | -- | -- | 300 | 45.4 | 1,800 | 8,320 | 10.4 | -- | -- | <10.0 | <10.0 |
| MW-6 | 3/16/2012 | (NP) | 27.50 | 7.49 | 0.0 | 20.01 | 46,000 | -- | -- | 304 | 19.8 | 1,640 | 4,990 | 10.1 | -- | -- | <10.0 | <10.0 |
| MW-6 | 7/26/2012 | (NP) | 27.50 | 9.68 | 0.0 | 17.82 | 51,100 | -- | -- | 233 | 20.5 | 1,790 | 5,670 | 7.3 | -- | -- | <10.0 | <10.0 |
| MW-6 | 3/1/2013 | (NP) | 27.50 | 9.73 | 0.0 | 17.77 | 5,040 | -- | -- | 4.2 | 6.0 | 92.8 | 1,250 | -- | -- | -- | <3.0 | <10.0 |
| MW-6 | 5/22/2013 | (NP) | 27.50 | 9.48 | 0.0 | 18.02 | 159 | -- | -- | <1.0 | <1.0 | 4.8 | 35.7 | 1.5 | -- | -- | <10.0 | <10.0 |
| MW-6 | 7/24/2013 | (NP) | 27.50 | 10.49 | 0.0 | 17.01 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-6 | 10/4/2013 | (LFP) | 27.50 | 9.05 | 0.0 | 18.45 | 783 | -- | -- | 8.6 | 1.5 | 11.3 | 28.0 | 1.4 | -- | -- | <10.0 | <10.0 |
| MW-6 | 2/12/2014 | (LFP) | 27.50 | 9.14 | 0.0 | 18.36 | 3,400 | -- | -- | 4.3(J) | <3.5 | 55 | 24(J) | <2.5 | -- | -- | <4.7 | <4.7 |
| MW-6 | 2/12/2014 | (Dup)(LFP) | 27.50 | 9.14 | 0.0 | 18.36 | 3,400 | -- | -- | 4.7(J) | <3.5 | 51 | 23(J) | <2.5 | -- | -- | <4.7 | <4.7 |
| MW-6 | 5/14/2014 | (LFP) | 27.50 | 8.05 | 0.0 | 19.45 | 14,000 | -- | -- | <2.5 | <2.5 | 57 | 420 | <2.5 | -- | -- | 0.17(J) | <0.085 |
| MW-6 | 8/5/2014 | (LFP) | 27.50 | 10.31 | 0.0 | 17.19 | 7,500 | -- | -- | 3.6(J) | <2.5 | 120 | 230 | <2.5 | -- | -- | 0.15(J) | <0.082 |
| MW-6 | 12/2/2014 | (LFP) | 27.50 | 8.91 | 0.0 | 18.59 | 8,500 | 2,200 | 210(J) | 5.0 | 2.7 | 110 | 330 | 2.6 | -- | -- | 0.083(J) | -- |
| MW-7 | 4/22/2003 | (P) | 197.32 | 9.24 | 0.0 | 188.08 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 15.8 | -- |
| MW-7 | 6/30/2003 | (P) | 197.32 | 10.33 | 0.0 | 186.99 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 25 | 7.06 |
| MW-7 | 9/15/2003 | (P) | 197.32 | 10.82 | 0.0 | 186.50 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 14.4 | <1.00 |
| MW-7 | 12/30/2003 | (P) | 197.32 | 9.31 | 0.0 | 188.01 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 1.35 | <1.00 |
| MW-7 | 7/13/2004 | (NS) | 197.32 | 10.38 | 0.0 | 186.94 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | 11/1/2004 | (NP) | 197.32 | 10.20 | 0.0 | 187.12 | <80.0 | -- | -- | <0.200 | <0.500 | <0.500 | <1.00 | <2.00 | -- | -- | <1.00 | -- |
| MW-7 | 3/3/2005 | (NP) | 197.32 | 9.80 | 0.0 | 187.52 | <80.0 | -- | -- | <0.200 | <0.500 | <0.500 | <1.00 | <2.00 | -- | -- | <1 | -- |
| MW-7 | 6/12/2005 | (NP) | 197.32 | 9.49 | 0.0 | 187.83 | <80.0 | -- | -- | <0.200 | <0.500 | <0.500 | <1.00 | <2.00 | -- | -- | 1.38 | -- |
| MW-7 | 8/28/2005 | (NS) | 197.32 | 10.63 | 0.0 | 186.69 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | 11/17/2005 | (NS) | 197.32 | 9.54 | 0.0 | 187.78 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | 3/5/2006 | (NS) | 197.32 | 8.96 | 0.0 | 188.36 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | 10/24/2006 | (NS) | 197.32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | 3/22/2007 | (NS) | 197.32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | 5/30/2007 | (NS) | 197.32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 3
Groundwater Gauging Data and Select Analytical Results
WA-05544**

19918 68th Avenue South, Kent, WA 98032

All analytical results are presented in micrograms per liter (µg/L)

| Well | Date | Notes | TOC | DTW | NAPL | GWE | GRO | DRO | HO | Benzene | Toluene | Ethylbenzene | Total Xylenes | MTBE | EDB | EDC | Total Lead | Dissolved Lead |
|--|------------|----------|--------|-------|------|--------|-----------|-----|-----|---------|---------|--------------|---------------|---------|------|-----|-------------|----------------|
| Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L | | | | | | | 800/1,000 | 500 | 500 | 5 | 1,000 | 700 | 1,000 | 20 | 0.01 | 5 | 15 | 15 |
| MW-7 | 9/4/2007 | (NS) | 197.32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | 11/13/2007 | (NS) | 197.32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | 3/12/2008 | (NP) | 197.32 | 9.42 | 0.0 | 187.90 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-7 | 6/9/2008 | (NP) | 197.32 | 9.29 | 0.0 | 188.03 | <50.0 | -- | -- | <0.500 | 3.18 | 1.67 | 32.5 | <1.00 | -- | -- | -- | -- |
| MW-7 | 8/6/2008 | (NS) | 197.32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | 10/8/2008 | (NS) | 197.32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | 1/15/2009 | (NP) | 197.32 | 7.65 | 0.0 | 189.67 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-7 | 4/2/2009 | (NP) | 197.32 | 8.52 | 0.0 | 188.80 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | <1.00 | <1.00 |
| MW-7 | 10/14/2009 | (NS) | 197.32 | 8.97 | 0.0 | 188.35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | 3/22/2010 | (NP) | 26.64 | 8.39 | -- | 18.25 | <50 | -- | -- | <1.0 | <1.0 | <1.0 | <3 | <1.0 | -- | -- | -- | -- |
| MW-7 | 6/22/2010 | (NP, H) | 26.64 | 7.82 | -- | 18.82 | <50 | -- | -- | <0.50 | <0.50 | <0.50 | <1.0 | <1.0(H) | -- | -- | -- | -- |
| MW-7 | 3/10/2011 | (NP) | 26.64 | 6.27 | 0.0 | 20.37 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-7 | 9/19/2011 | (NP) | 26.64 | 9.38 | 0.0 | 17.26 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-7 | 3/16/2012 | (NP) | 26.64 | 6.31 | 0.0 | 20.33 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-7 | 7/26/2012 | (NS) | 26.64 | 9.26 | 0.0 | 17.38 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | 3/1/2013 | (NS) | 26.64 | 8.52 | 0.0 | 18.12 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | 5/22/2013 | (NS) | 26.64 | 8.60 | 0.0 | 18.04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | 7/24/2013 | (NS) | 26.64 | 9.97 | 0.0 | 16.67 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | 10/4/2013 | (NS) | 26.64 | 7.82 | 0.0 | 18.82 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | 2/12/2014 | (NS) | 26.64 | 7.91 | 0.0 | 18.73 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | 5/14/2014 | (NG) | 26.64 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | 8/5/2014 | (NS, NG) | 26.64 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | 12/2/2014 | (NS) | 26.64 | 8.13 | 0.0 | 18.51 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-8 | 4/22/2003 | (P) | 196.68 | 8.45 | 0.0 | 188.23 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 14.7 | -- |
| MW-8 | 6/30/2003 | (P) | 196.68 | 9.61 | 0.0 | 187.07 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 12.8 | 4.24 |
| MW-8 | 9/15/2003 | (P) | 196.68 | 10.20 | 0.0 | 186.48 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 16.9 | <1.00 |
| MW-8 | 12/30/2003 | (P) | 196.68 | 8.60 | 0.0 | 188.08 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 1.53 | <1.00 |
| MW-8 | 7/13/2004 | (NS) | 196.68 | 9.56 | 0.0 | 187.12 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-8 | 11/1/2004 | (NP) | 196.68 | 9.45 | 0.0 | 187.23 | <80.0 | -- | -- | <0.200 | <0.500 | <0.500 | <1.00 | <2.00 | -- | -- | <1.00 | -- |
| MW-8 | 3/3/2005 | (NP) | 196.68 | 8.94 | 0.0 | 187.74 | <80.0 | -- | -- | <0.200 | <0.500 | <0.500 | <1.00 | <2.00 | -- | -- | <1 | -- |
| MW-8 | 6/12/2005 | (NP) | 196.68 | 8.81 | 0.0 | 187.87 | <80.0 | -- | -- | <0.200 | <0.500 | <0.500 | <1.00 | <2.00 | -- | -- | <1.00 | -- |
| MW-8 | 8/28/2005 | (NS) | 196.68 | 9.97 | 0.0 | 186.71 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-8 | 11/17/2005 | (NS) | 196.68 | 8.85 | 0.0 | 187.83 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-8 | 3/5/2006 | (NS) | 196.68 | 8.16 | 0.0 | 188.52 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-8 | 10/24/2006 | (NS) | 196.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-8 | 3/22/2007 | (NS) | 196.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-8 | 5/30/2007 | (NS) | 196.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-8 | 9/4/2007 | (NS) | 196.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-8 | 11/13/2007 | (NS) | 196.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-8 | 3/12/2008 | (NP) | 196.68 | 8.68 | 0.0 | 188.00 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-8 | 6/9/2008 | (NP) | 196.68 | 8.51 | 0.0 | 188.17 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-8 | 8/6/2008 | (NS) | 196.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-8 | 10/8/2008 | (NS) | 196.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-8 | 1/15/2009 | (NP) | 196.68 | 7.13 | 0.0 | 189.55 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |

**Table 3
Groundwater Gauging Data and Select Analytical Results
WA-05544**

19918 68th Avenue South, Kent, WA 98032

All analytical results are presented in micrograms per liter (µg/L)

| Well | Date | Notes | TOC | DTW | NAPL | GWE | GRO | DRO | HO | Benzene | Toluene | Ethylbenzene | Total Xylenes | MTBE | EDB | EDC | Total Lead | Dissolved Lead |
|--|------------|-------------|--------|-------|------|--------|-----------|-----|-----|---------|---------|--------------|---------------|---------|------|-----|------------|----------------|
| Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L | | | | | | | 800/1,000 | 500 | 500 | 5 | 1,000 | 700 | 1,000 | 20 | 0.01 | 5 | 15 | 15 |
| MW-8 | 4/2/2009 | (NP) | 196.68 | 7.80 | 0.0 | 188.88 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | <1.00 | <1.00 |
| MW-8 | 10/14/2009 | (NS) | 196.68 | 8.45 | 0.0 | 188.23 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-8 | 3/22/2010 | (NP) | 26.00 | 7.59 | -- | 18.41 | <50 | -- | -- | <1.0 | <1.0 | <1.0 | <3 | <1.0 | -- | -- | -- | -- |
| MW-8 | 6/22/2010 | (NP, H) | 26.00 | 7.23 | -- | 18.77 | <50 | -- | -- | <0.50 | <0.50 | <0.50 | <1.0 | <1.0(H) | -- | -- | -- | -- |
| MW-8 | 3/10/2011 | (NP) | 26.00 | 5.56 | 0.0 | 20.44 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-8 | 9/19/2011 | (NP) | 26.00 | 8.76 | 0.0 | 17.24 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-8 | 3/16/2012 | (NP) | 26.00 | 5.68 | 0.0 | 20.32 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-8 | 7/26/2012 | (NS) | 26.00 | 8.52 | 0.0 | 17.48 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-8 | 3/1/2013 | (Abandoned) | 26.00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-9 | 4/22/2003 | (P) | 197.42 | 8.77 | 0.0 | 188.65 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 17.2 | -- |
| MW-9 | 6/30/2003 | (P) | 197.42 | 10.25 | 0.0 | 187.17 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 47.3 | 4.67 |
| MW-9 | 9/15/2003 | (P) | 197.42 | 10.83 | 0.0 | 186.59 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 12.9 | <1.00 |
| MW-9 | 12/30/2003 | (P) | 197.42 | 8.99 | 0.0 | 188.43 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 17.9 | <1.00 |
| MW-9 | 7/13/2004 | (NS) | 197.42 | 10.08 | 0.0 | 187.34 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-9 | 11/1/2004 | (NP) | 197.42 | 9.75 | 0.0 | 187.67 | <80.0 | -- | -- | <0.200 | <0.500 | <0.500 | <1.00 | <2.00 | -- | -- | 1.79 | -- |
| MW-9 | 3/3/2005 | (NP) | 197.42 | 8.98 | 0.0 | 188.44 | <80.0 | -- | -- | <0.200 | <0.500 | <0.500 | <1.00 | <2.00 | -- | -- | <1 | -- |
| MW-9 | 6/12/2005 | (NP) | 197.42 | 9.49 | 0.0 | 187.93 | <80.0 | -- | -- | <0.200 | <0.500 | <0.500 | <1.00 | <2.00 | -- | -- | <1.00 | -- |
| MW-9 | 8/28/2005 | (NS) | 197.42 | 10.59 | 0.0 | 186.83 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-9 | 11/17/2005 | (NS) | 197.42 | 9.52 | 0.0 | 187.90 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-9 | 3/5/2006 | (NS) | 197.42 | 8.55 | 0.0 | 188.87 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-9 | 10/24/2006 | (NS) | 197.42 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-9 | 3/22/2007 | (NS) | 197.42 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-9 | 5/30/2007 | (NS) | 197.42 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-9 | 9/4/2007 | (NS) | 197.42 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-9 | 11/13/2007 | (NS) | 197.42 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-9 | 3/12/2008 | (NP) | 197.42 | 9.20 | 0.0 | 188.22 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-9 | 6/9/2008 | (NP) | 197.42 | 8.91 | 0.0 | 188.51 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-9 | 8/6/2008 | (NP) | 197.42 | 10.18 | 0.0 | 187.24 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-9 | 10/8/2008 | (NP) | 197.42 | 10.10 | 0.0 | 187.32 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-9 | 1/15/2009 | (NP) | 197.42 | 7.61 | 0.0 | 189.81 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-9 | 4/2/2009 | (NP) | 197.42 | 8.50 | 0.0 | 188.92 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | 1.32 | <1.00 |
| MW-9 | 10/14/2009 | (NS) | 197.42 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-9 | 3/22/2010 | (NP) | 26.76 | 8.41 | -- | 18.35 | <50 | -- | -- | <1.0 | <1.0 | <1.0 | <3 | <1.0 | -- | -- | -- | -- |
| MW-9 | 6/22/2010 | (NP, H) | 26.76 | 7.88 | -- | 18.88 | <50 | -- | -- | <0.50 | <0.50 | <0.50 | <1.0 | <1.0(H) | -- | -- | -- | -- |
| MW-9 | 3/10/2011 | (NP) | 26.76 | 6.57 | 0.0 | 20.19 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-9 | 9/19/2011 | (NP) | 26.76 | 9.62 | 0.0 | 17.14 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-9 | 3/16/2012 | (NP) | 26.76 | 6.59 | 0.0 | 20.17 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-9 | 7/26/2012 | (NS) | 26.76 | 9.16 | 0.0 | 17.60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-9 | 3/1/2013 | (NS) | 26.76 | 8.62 | 0.0 | 18.14 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-9 | 5/22/2013 | (NS) | 26.76 | 8.95 | 0.0 | 17.81 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-9 | 7/24/2013 | (NS) | 26.76 | 9.86 | 0.0 | 16.90 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-9 | 10/4/2013 | (NS) | 26.76 | 8.25 | 0.0 | 18.51 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-9 | 2/12/2014 | (NS) | 26.76 | 8.24 | 0.0 | 18.52 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-9 | 5/14/2014 | (NS) | 26.76 | 7.84 | 0.0 | 18.92 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 3
Groundwater Gauging Data and Select Analytical Results
WA-05544**

19918 68th Avenue South, Kent, WA 98032

All analytical results are presented in micrograms per liter (µg/L)

| Well | Date | Notes | TOC | DTW | NAPL | GWE | GRO | DRO | HO | Benzene | Toluene | Ethylbenzene | Total Xylenes | MTBE | EDB | EDC | Total Lead | Dissolved Lead |
|--|------------|---------|--------|-------|------|--------|-----------|-----|-----|---------|---------|--------------|---------------|--------|------|-----|------------|----------------|
| Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L | | | | | | | 800/1,000 | 500 | 500 | 5 | 1,000 | 700 | 1,000 | 20 | 0.01 | 5 | 15 | 15 |
| MW-9 | 8/5/2014 | (NS) | 26.76 | 9.71 | 0.0 | 17.05 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-9 | 12/2/2014 | (NS) | 26.76 | 8.32 | 0.0 | 18.44 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-10 | 4/22/2003 | (P) | 197.70 | 8.59 | 0.0 | 189.11 | 278 | -- | -- | 30.9 | <0.500 | <0.500 | 28.5 | <2.00 | -- | -- | 5.92 | -- |
| MW-10 | 6/30/2003 | (P) | 197.70 | 10.48 | 0.0 | 187.22 | 195 | -- | -- | 38 | <0.500 | 0.535 | 5.73 | <5.00 | -- | -- | 19.8 | 11.7 |
| MW-10 | 9/15/2003 | (P) | 197.70 | 10.93 | 0.0 | 186.77 | 154 | -- | -- | 42 | 0.5 | <0.500 | 4.18 | <1.00 | -- | -- | 7.69 | <1.00 |
| MW-10 | 12/30/2003 | (P) | 197.70 | 8.81 | 0.0 | 188.89 | 312 | -- | -- | 39.3 | <0.500 | <0.500 | 24.6 | <1.00 | -- | -- | 8.78 | <1.00 |
| MW-10 | 7/13/2004 | (NS) | 197.70 | 10.35 | 0.0 | 187.35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-10 | 11/1/2004 | (NP) | 197.70 | 8.55 | 0.0 | 189.15 | <80.0 | -- | -- | <0.200 | <0.500 | <0.500 | <1.00 | <2.00 | -- | -- | <1.00 | -- |
| MW-10 | 3/3/2005 | (NP) | 197.70 | 9.40 | 0.0 | 188.30 | <80.0 | -- | -- | <0.200 | <0.500 | <0.500 | <1.00 | <2.00 | -- | -- | <1 | -- |
| MW-10 | 6/12/2005 | (NP) | 197.70 | 9.59 | 0.0 | 188.11 | <80.0 | -- | -- | <0.200 | <0.500 | <0.500 | <1.00 | <2.00 | -- | -- | <1.00 | -- |
| MW-10 | 8/28/2005 | (NS) | 197.70 | 10.75 | 0.0 | 186.95 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-10 | 11/17/2005 | (NP) | 197.70 | 9.79 | 0.0 | 187.91 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | <1.00 | -- |
| MW-10 | 3/5/2006 | (NS) | 197.70 | 8.40 | 0.0 | 189.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-10 | 10/24/2006 | (NS) | 197.70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-10 | 3/22/2007 | (NS) | 197.70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-10 | 5/30/2007 | (NS) | 197.70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-10 | 9/4/2007 | (NS) | 197.70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-10 | 11/13/2007 | (NS) | 197.70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-10 | 3/12/2008 | (NP) | 197.70 | 9.11 | 0.0 | 188.59 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-10 | 6/9/2008 | (NP) | 197.70 | 8.55 | 0.0 | 189.15 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-10 | 8/6/2008 | (NS) | 197.70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-10 | 10/8/2008 | (NS) | 197.70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-10 | 1/15/2009 | (NP) | 197.70 | 7.66 | 0.0 | 190.04 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <3.00 | <1.00 | -- | -- | -- | -- |
| MW-10 | 4/2/2009 | (NP) | 197.70 | 8.55 | 0.0 | 189.15 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | <1.00 | -- | -- | <1.00 | <1.00 |
| MW-10 | 10/14/2009 | (NS) | 197.70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-10 | 3/22/2010 | (NP) | 27.01 | 8.18 | -- | 18.83 | <50 | -- | -- | <1.0 | <1.0 | <1.0 | <3 | <1.0 | -- | -- | -- | -- |
| MW-10 | 6/22/2010 | (NP, H) | 27.01 | 7.98 | -- | 19.03 | <50 | -- | -- | <0.50 | <0.50 | <0.50 | <1.0 | <50(H) | -- | -- | -- | -- |
| MW-10 | 3/10/2011 | (NP) | 27.01 | 7.11 | 0.0 | 19.90 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-10 | 9/19/2011 | (NP) | 27.01 | 9.80 | 0.0 | 17.21 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-10 | 3/16/2012 | (NP) | 27.01 | 7.01 | 0.0 | 20.00 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-10 | 7/26/2012 | (NS) | 27.01 | 9.12 | 0.0 | 17.89 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-10 | 3/1/2013 | (NS) | 27.01 | 8.81 | 0.0 | 18.20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-10 | 5/22/2013 | (NP) | 27.01 | 8.99 | 0.0 | 18.02 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | <10.0 |
| MW-10 | 7/24/2013 | (NS) | 27.01 | 9.89 | 0.0 | 17.12 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-10 | 10/4/2013 | (LFP) | 27.01 | 8.80 | 0.0 | 18.21 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | -- | -- | <10.0 | 11.0 |
| MW-10 | 2/12/2014 | (NS) | 27.01 | 8.69 | 0.0 | 18.32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-10 | 5/14/2014 | (NS) | 27.01 | 7.52 | 0.0 | 19.49 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-10 | 8/5/2014 | (NS) | 27.01 | 9.85 | 0.0 | 17.16 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-10 | 12/2/2014 | (NS) | 27.01 | 8.51 | 0.0 | 18.50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-11 | 8/5/2014 | (NS) | 26.88 | 9.82 | 0.0 | 17.06 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-11 | 8/7/2014 | (LFP) | 26.88 | -- | -- | -- | <50 | -- | -- | 0.75(J) | <0.50 | 0.68(J) | 1.4 | <0.50 | -- | -- | 38.6 | 2.7 |
| MW-11 | 12/2/2014 | (LFP) | 26.88 | 8.31 | 0.0 | 18.57 | <50 | <28 | <66 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | -- | -- | 0.34(J) | -- |
| MW-12 | 8/5/2014 | (NS) | 27.26 | 10.25 | 0.0 | 17.01 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-12 | 8/7/2014 | (LFP) | 27.26 | -- | -- | -- | 3,100 | -- | -- | 700 | 2.1 | 280 | 580 | 88 | -- | -- | 4.7 | 0.15(J) |

**Table 3
Groundwater Gauging Data and Select Analytical Results
WA-05544**

19918 68th Avenue South, Kent, WA 98032

All analytical results are presented in micrograms per liter (µg/L)

| Well | Date | Notes | TOC | DTW | NAPL | GWE | GRO | DRO | HO | Benzene | Toluene | Ethylbenzene | Total Xylenes | MTBE | EDB | EDC | Total Lead | Dissolved Lead |
|---|-----------|-------|-------|-------|------|-------|------------------|--------------|------------|------------|--------------|--------------|---------------|-----------|-------------|----------|------------|----------------|
| Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L | | | | | | | 800/1,000 | 500 | 500 | 5 | 1,000 | 700 | 1,000 | 20 | 0.01 | 5 | 15 | 15 |
| MW-12 | 12/2/2014 | (LFP) | 27.26 | 8.99 | 0.0 | 18.27 | 2,000 | 960 | 130(J) | 310 | 0.75(J) | 270 | 360 | 96 | -- | -- | 0.53(J) | -- |
| MW-13 | 8/5/2014 | (NS) | 27.27 | 10.21 | 0.0 | 17.06 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-13 | 8/7/2014 | (LFP) | 27.27 | -- | -- | -- | 1,000 | -- | -- | 2.0 | <0.50 | 12 | 94 | 90 | -- | -- | 6.1 | 0.30(J) |
| MW-13 | 12/2/2014 | (LFP) | 27.27 | 8.88 | 0.0 | 18.39 | 11,000 | 1,700 | 230(J) | 1.2 | 0.92(J) | 91 | 690 | 25 | -- | -- | 0.19(J) | -- |

msl = Mean sea level
 TOC = Top of casing
 GWE = Groundwater elevation above msl
 DTW = Depth to water below TOC
 All analytical results are in micrograms per liter (µg/L)
 TOC/DTW/NAPL/GWE measurements are in feet (ft)
 ND = Not detected at or above the laboratory reporting limit
 -- = Not analyzed/not applicable
 NE = Top of casing not established
 DUP = Duplicate sample
 NS = Not Sampled
 NAPL = Non-Aqueous Phase Liquid
 GRO = Total Petroleum Hydrocarbons - Gasoline Range Organics
 DRO = Total Petroleum Hydrocarbons - Diesel Range Organics
 HO = Total Petroleum Hydrocarbons- Heavy Oil Range Organics
 EDB = Ethylene Dibromide
 EDC = 1,2-Dichloroethane
 MTBE = Methyl Tertiary Butyl Ether
 BTEX = Benzene, Toluene, Ethylbenzene and Total Xylenes
 P = Purge sampling
 LFP = Low flow purge sampling
 NP = No purge sampling
 GRO, DRO, HO methods by Ecology NW Methods; BTEX, MTBE and EDB by 8260B, lead by EPA 6000/7000 Series, EDC by EPA 8011
 Historic analysis by former consultant of BTEX, MTBE and EDB by EPA 8021B and confirmed with EPA 8260B if necessary
 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)
 800/1,000 = GRO MTCA cleanup levels with benzene present (800) and without (1,000)
 Data collected prior to 2010 have been provided by previous consultants and are included as historical reference only
 Site resurveyed in 2010. TOC elevation in reference to vertical datum N.A.V.D. 88 and horizontal datum NAD 83/98
 H = Sample was prepared or analyzed beyond the specified holding time
 Y = The chromatographic response resembles a typical fuel pattern
 J = estimated value – The result is greater than or equal to the Method Detection Limit (MDL) and less than the Limit of Quantitation (LOQ)
 NG = Not Gauged

BOLD constituent detected above MTCA Cleanup Levels

**Table 3
Groundwater Gauging Data and DRO and HO with and without Silica Gel Cleanup Analytical Results
WA-05544**

19918 68th Avenue South, Kent, WA 98032

All analytical results are presented in micrograms per liter (µg/L)

| Well | Date | Notes | TOC | DTW | NAPL | GWE | DRO | HO | DRO w/ Si Gel | HO w/ Si Gel |
|---|-----------|------------|-------|------|------|-------|--------------|------------|---------------|--------------|
| Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L | | | | | | | 500 | 500 | 500 | 500 |
| MW-2 | 12/2/2014 | (LFP) | 27.32 | 8.53 | 0.0 | 18.79 | 3,300 | 180(J) | 1,500 | <66 |
| MW-2 | 12/2/2014 | (Dup)(LFP) | 27.32 | 8.53 | 0.0 | 18.79 | 2,400 | 220(J) | 1,300 | <66 |
| MW-3 | 12/2/2014 | (NS) | 26.83 | 7.78 | 0.0 | 19.05 | -- | -- | -- | -- |
| MW-4 | 12/2/2014 | (NS) | 27.01 | 8.54 | 0.0 | 18.47 | -- | -- | -- | -- |
| MW-5 | 12/2/2014 | (LFP) | 27.53 | 9.01 | 0.0 | 18.52 | 220 | <65 | 67 J | <65 |
| MW-6 | 12/2/2014 | (LFP) | 27.50 | 8.91 | 0.0 | 18.59 | 2,200 | 210(J) | 1,100 | <65 |
| MW-7 | 12/2/2014 | (NS) | 26.64 | 8.13 | 0.0 | 18.51 | -- | -- | -- | -- |
| MW-9 | 12/2/2014 | (NS) | 26.76 | 8.32 | 0.0 | 18.44 | -- | -- | -- | -- |
| MW-10 | 12/2/2014 | (NS) | 27.01 | 8.51 | 0.0 | 18.50 | -- | -- | -- | -- |
| MW-11 | 12/2/2014 | (LFP) | 26.88 | 8.31 | 0.0 | 18.57 | <28 | <66 | <28 | <66 |
| MW-12 | 12/2/2014 | (LFP) | 27.26 | 8.99 | 0.0 | 18.27 | 960 | 130 J | 430 | <65 |
| MW-13 | 12/2/2014 | (LFP) | 27.27 | 8.88 | 0.0 | 18.39 | 1,700 | 230(J) | 950 | <66 |

msl = Mean sea level

TOC = Top of casing

GWE = Groundwater elevation above msl

DTW = Depth to water below TOC

All analytical results are in micrograms per liter (µg/L)

TOC/DTW/NAPL/GWE measurements are in feet (ft)

ND = Not detected at or above the laboratory reporting limit

-- = Not analyzed/not applicable

NE = Top of casing not established

DUP = Duplicate sample

NS = Not Sampled

NAPL = Non-Aqueous Phase Liquid

DRO = Total Petroleum Hydrocarbons - Diesel Range Organics

HO = Total Petroleum Hydrocarbons- Heavy Oil Range Organics

Table 3
Groundwater Gauging Data and DRO and HO with and without Silica Gel Cleanup Analytical Results
WA-05544

19918 68th Avenue South, Kent, WA 98032

All analytical results are presented in micrograms per liter (µg/L)

| Well | Date | Notes | TOC | DTW | NAPL | GWE | DRO | HO | DRO w/ Si Gel | HO w/ SI Gel |
|---|------|-------|-----|-----|------|-----|------------|------------|---------------|--------------|
| Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L | | | | | | | 500 | 500 | 500 | 500 |

LFP = Low flow purge sampling

NP = No purge sampling

GRO, DRO, HO methods by Ecology NW Methods; BTEX, MTBE and EDB by 8260B, lead by EPA 6000/7000 Series, EDC by EPA 8011

Groundwater Elevation - If NAPL is present, the elevation is corrected according to the following formula, (TOC elevation - depth to water) + 800/1,000 = GRO MTCA cleanup levels with benzene present (800) and without (1,000)

Site resurveyed in 2010. TOC elevation in reference to vertical datum N.A.V.D. 88 and horizontal datum NAD 83/98

J = estimated value – The result is greater than or equal to the Method Detection Limit (MDL) and less than the Limit of Quantitation (LOQ)

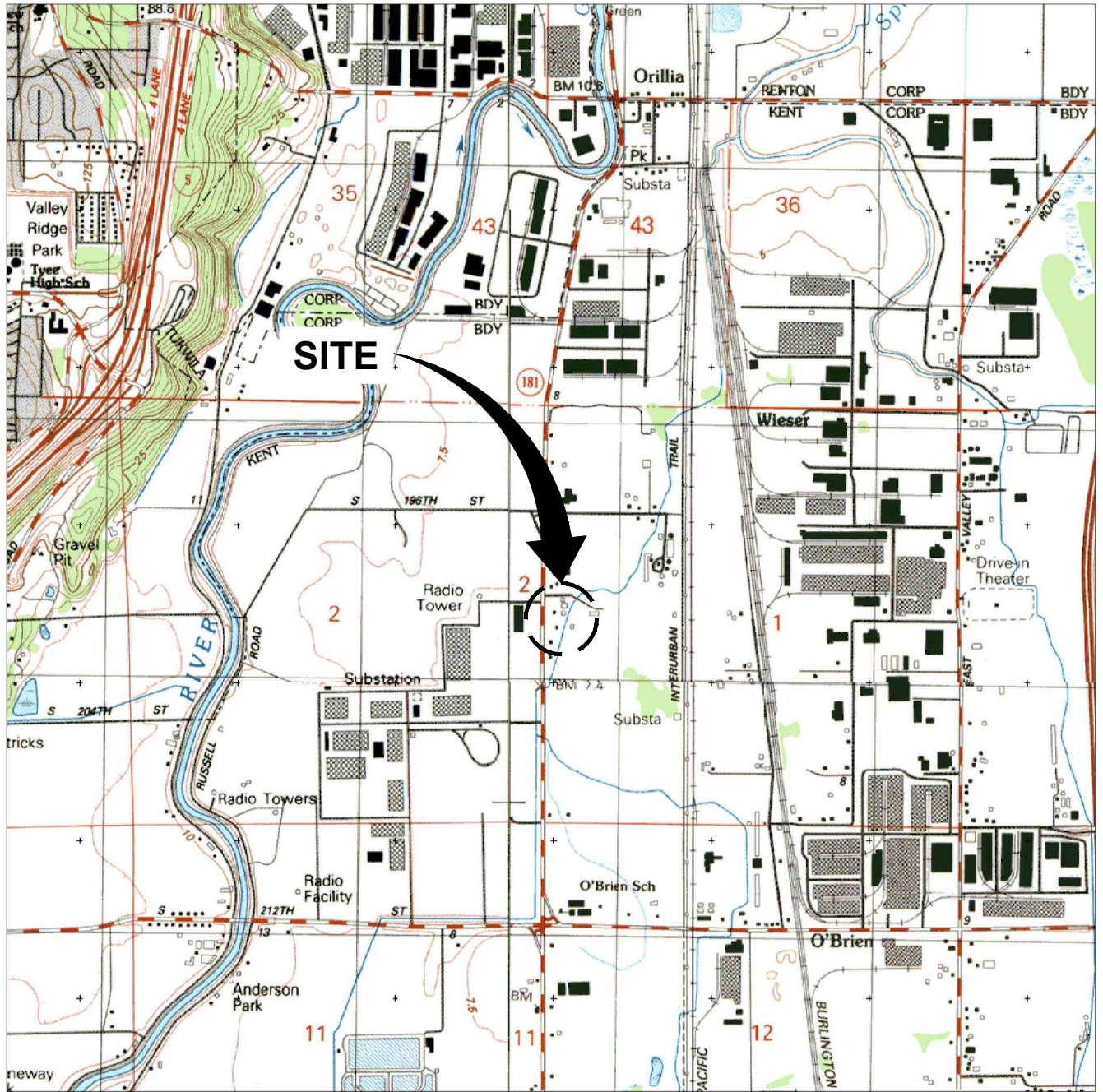
NG = Not Gauged

BOLD constituent detected above MTCA Cleanup Levels

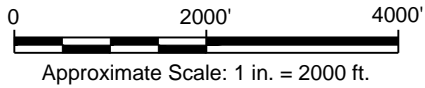
ARCADIS

Figures

CITY:(Rept) DIV:(Group):(Rept) DB:(Rept) LD:(Opt) PIC:(Opt) PML:(Rept) TM:(Opt) LYR:(Opt)ONL:(OFF)-REF:
 G:\ENV\CAD\Energy\li\li\ACT\G08BPNA\WA39\000\Annual2014\DWG\G08BPNA\WA39 Not.dwg LAYOUT: T. SAVED: 2/6/2015 12:28 PM ACADVER: 18.1 S (LMS TECH) PAGES: 1
 PLOTSETUP: PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 2/9/2015 12:45 PM BY: REYES, ALEC
 XREFS: IMAGES: PROJECTNAME: SITE 5544 TOPOGRAPHIC.jpg



REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. QUAD., BURIEN & RENTON, WA., PHOTOREVISED 1983.



BP WEST COAST PRODUCTS, LLC.
 FORMER ARCO FACILITY No. 5544
 19918 68TH AVENUE SOUTH, KENT, WASHINGTON
ANNUAL SITE STATUS REPORT 2014

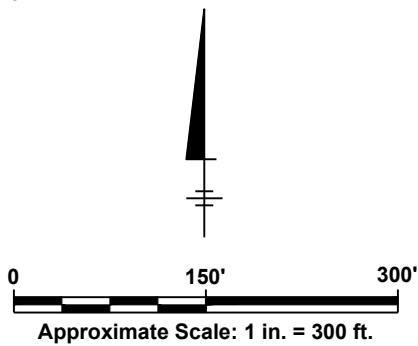
SITE LOCATION MAP



FIGURE
1



GENERAL NOTES:
AERIAL PHOTOGRAPH
DATED 6/13/02



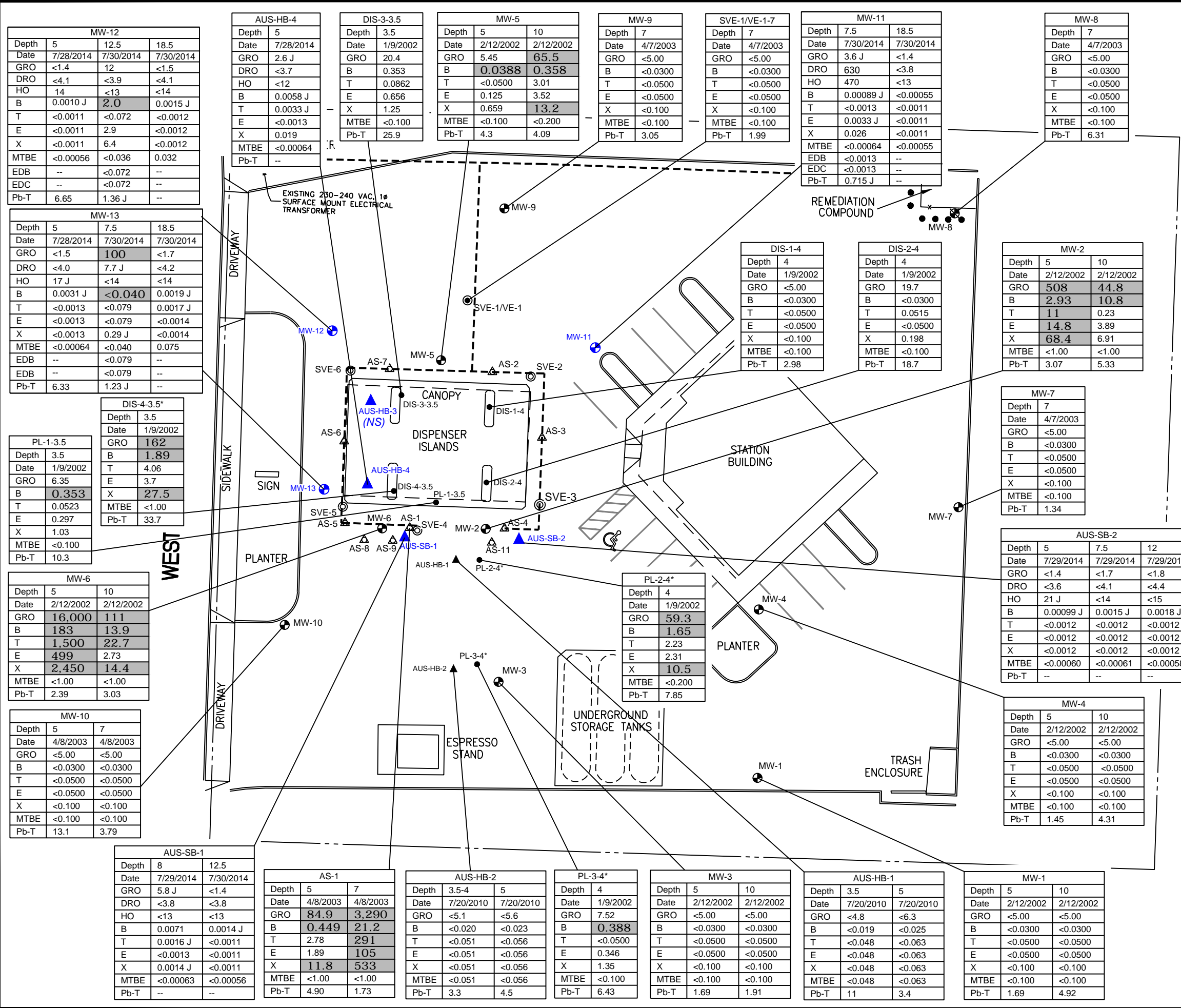
BP WEST COAST PRODUCTS, LLC.
 FORMER ARCO FACILITY No. 5544
 19860 68TH AVENUE SOUTH, KENT, WASHINGTON
ANNUAL SITE STATUS REPORT 2014

SITE AERIAL MAP



FIGURE
2

CITY: (Read) DIV: (Read) DB: (Read) LD: (Opt) PIC: (Opt) PM: (Read) TM: (Opt) LVR: (Opt) ON: "OFF" REF: G:\ENVCAD\Emeryville\ACT\G098BPN\WA39\W0000\Annual2014\DWG\G098BPN\WA39 Current\SiteSoil.dwg LAYOUT: 3 SAVED: 3/3/2015 1:39 PM ACADVER: 18.1S (LMS TECH) PAGES: 3 PLOTTED: 3/10/2015 10:53 AM BY: REYES, ALEC

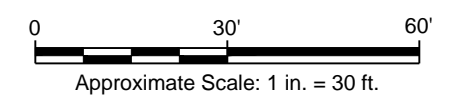


LEGEND:

- MW-1 ● MONITORING WELL LOCATION
- VE-1 ⊙ VAPOR EXTRACTION WELL LOCATION
- AS-1 ▲ AIR SPARGE WELL LOCATION
- AUS-SB-1 ▲ UPDATE TO HAND AUGER / SOIL BORING LOCATIONS 2014
- MW-8 ⊗ ABANDONED MONITORING WELL
- PL-2-4 ● PRODUCT PIPING SOIL SAMPLE LOCATION
- EXISTING REMEDIATION AND ELECTRICAL PIPING TRENCH
- < NOT DETECTED AT OR ABOVE THE LABORATORY LIMIT OR METHOD DETECTION LIMIT
- * SUBSEQUENT SOIL SAMPLING INDICATES SOIL IMPACTS NO LONGER PRESENT
- BOLD** REPRESENTS ANALYTES DETECTED ABOVE MTCA METHOD A CLEANUP LEVELS
- NS** NOT SAMPLED
- NOT ANALYZED / NOT APPLICABLE

| Sample Location | |
|-----------------|--|
| Date | Date Collected |
| Depth | Sample Depth in Feet below ground surface |
| GRO | Total Petroleum Hydrocarbons in the Gasoline Range Organics |
| DRO | Total Petroleum Hydrocarbons in the Diesel Range Organics |
| HO | Total Petroleum Hydrocarbons in the Heavy Oil Range Organics |
| B | Benzene |
| T | Toluene |
| E | Ethylbenzene |
| X | Total Xylenes |
| EDB | Ethylene Dibromide |
| EDC | 1, 2-Dichloroethene |
| MTBE | Methyl Tertiary Butyl Ether |
| Pb-T | Total Lead |

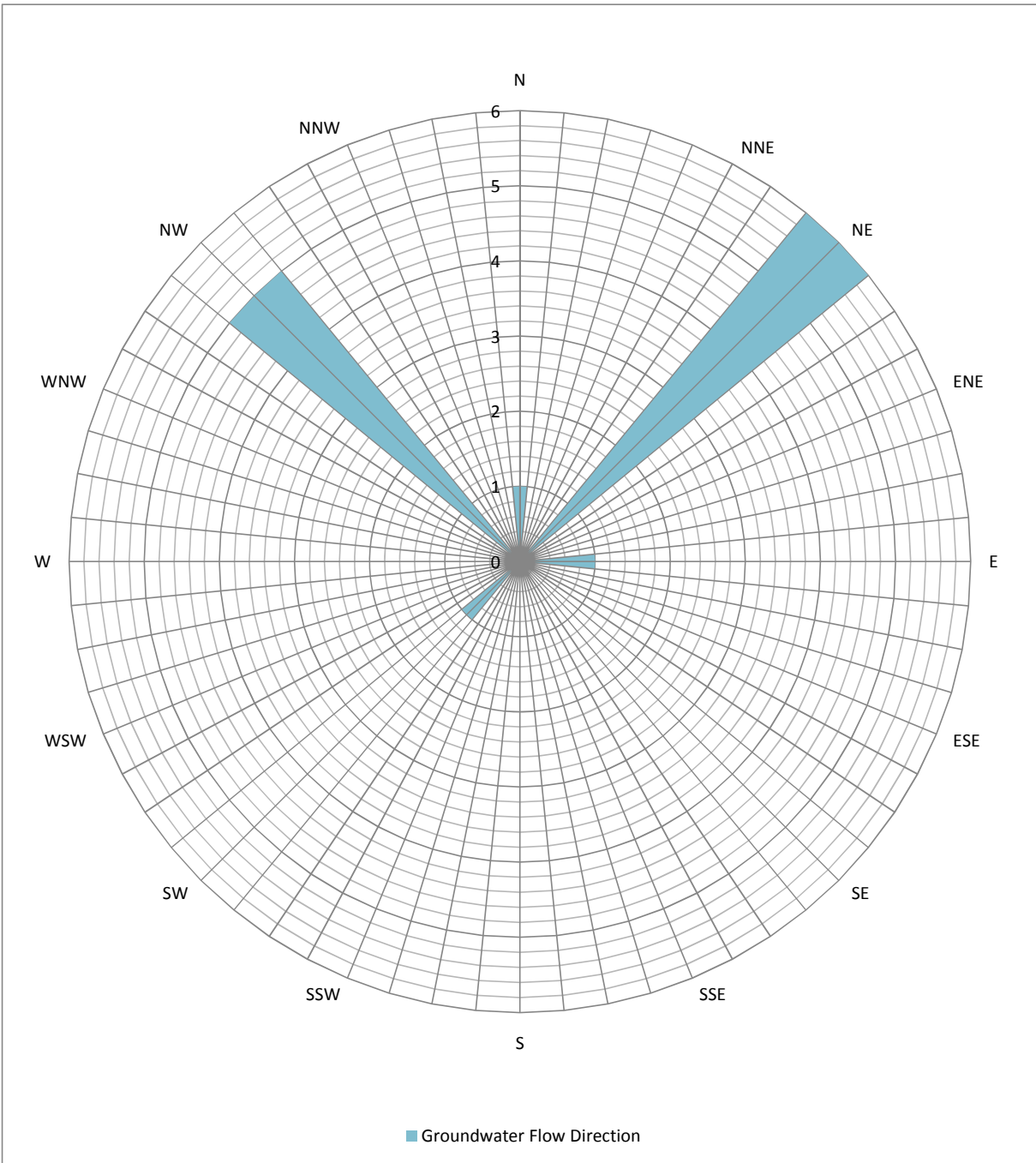
- NOTE:**
- ALL CONCENTRATIONS ARE MEASURED IN MILLIGRAMS PER KILOGRAM (mg/kg).
 - ALL SOIL CONFIRMATION SAMPLES AND BORING LOCATIONS ARE APPROXIMATE.
 - THIS MAP PREPARED FROM A FIELD SURVEY BY OTAK ON MAY 26, 2010. THE SITE WAS RE-SURVEYED IN 2014 FOLLOWING NEW WELL INSTALLATION.



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HISTORICAL SOIL ANALYTICAL MAP

FIGURE
3



Rose diagram based on flow direction calculations from groundwater monitoring events conducted by ARCADIS since top of casing was surveyed in March 2010.

Legend

- N=North
- NNE= North Northeast
- NE= Northeast
- ENE= East Northeast
- E= East
- ESE= East Southeast
- SE=Southeast
- SSE= South Southeast
- S= South
- SW= Southwest
- SSW= South Southwest
- WSW= West South West
- W= West
- WNW= West Northwest
- NW=Northwest

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ANNUAL SITE STATUS REPORT 2014

Historical Groundwater Flow Direction Rose Diagram



FIGURE

4

CITY:\Redd\DIV\GROUP\Repp\DE\Repp\LD\Opt\PIE\Opt\PM\Repp\TM\Opt\LYR\Opt\ON*OFF*REF
 \ARCADIS\US\offices\Emeryville\CA\ENVCAD\Emeryville\ACT\GPO\BPN\WA39\N000\Annual2014\DWG\GPO\BPN\WA39\W05.dwg
 LAYOUT: 5 - SAVED: 3/10/2015 10:56 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 3/23/2015 11:06 AM BY: HUBBATCH, RICK

| MW-5 | |
|------|---------|
| Date | 2/12/14 |
| GRO | 150 J |
| B | 0.98 J |
| T | <0.70 |
| E | <0.80 |
| X | <0.80 |
| MTBE | 1.8 J |
| Pb-T | <4.7 |
| Pb-D | <4.7 |

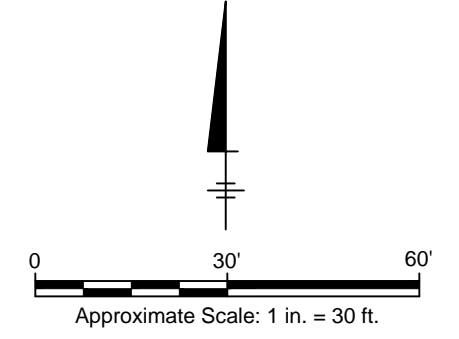
| MW-6 | |
|------|------------------------|
| Date | 2/12/14 |
| GRO | 3,400 / [3,400] |
| B | 4.3 J / [4.7 J] |
| T | <3.5 / [<3.5] |
| E | 55 / [51] |
| X | 24 J / [23 J] |
| MTBE | <2.5 / [<2.5] |
| Pb-T | <4.7 / [<4.7] |
| Pb-D | <4.7 / [<4.7] |

| MW-2 | |
|------|--------------|
| Date | 2/12/14 |
| GRO | 7,200 |
| B | 2.7 J |
| T | 0.71 J |
| E | 430 |
| X | 590 |
| MTBE | <0.50 |
| Pb-T | <4.7 |
| Pb-D | <4.7 |

- LEGEND:
- PROPERTY BOUNDARY
 - MW-1 ● MONITORING WELL LOCATION
 - SVE-4 ⊙ VAPOR EXTRACTION WELL LOCATION
 - AS-11 ▲ AIR SPARGE WELL LOCATION
 - MW-8 ⊗ ABANDONED MONITORING WELL
 - (19.12) GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL [MSL])
 - GROUNDWATER CONTOUR (DASHED WHERE INFERRED) (FEET ABOVE MSL)
 - ← INFERRED GROUNDWATER FLOW DIRECTION
 - < LESS THAN LABORATORY DETECTION LIMITS
 - J ESTIMATED VALUE - RESULT GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT (MDL) AND LESS THAN THE LIMIT OF QUANTITATION (LOQ)

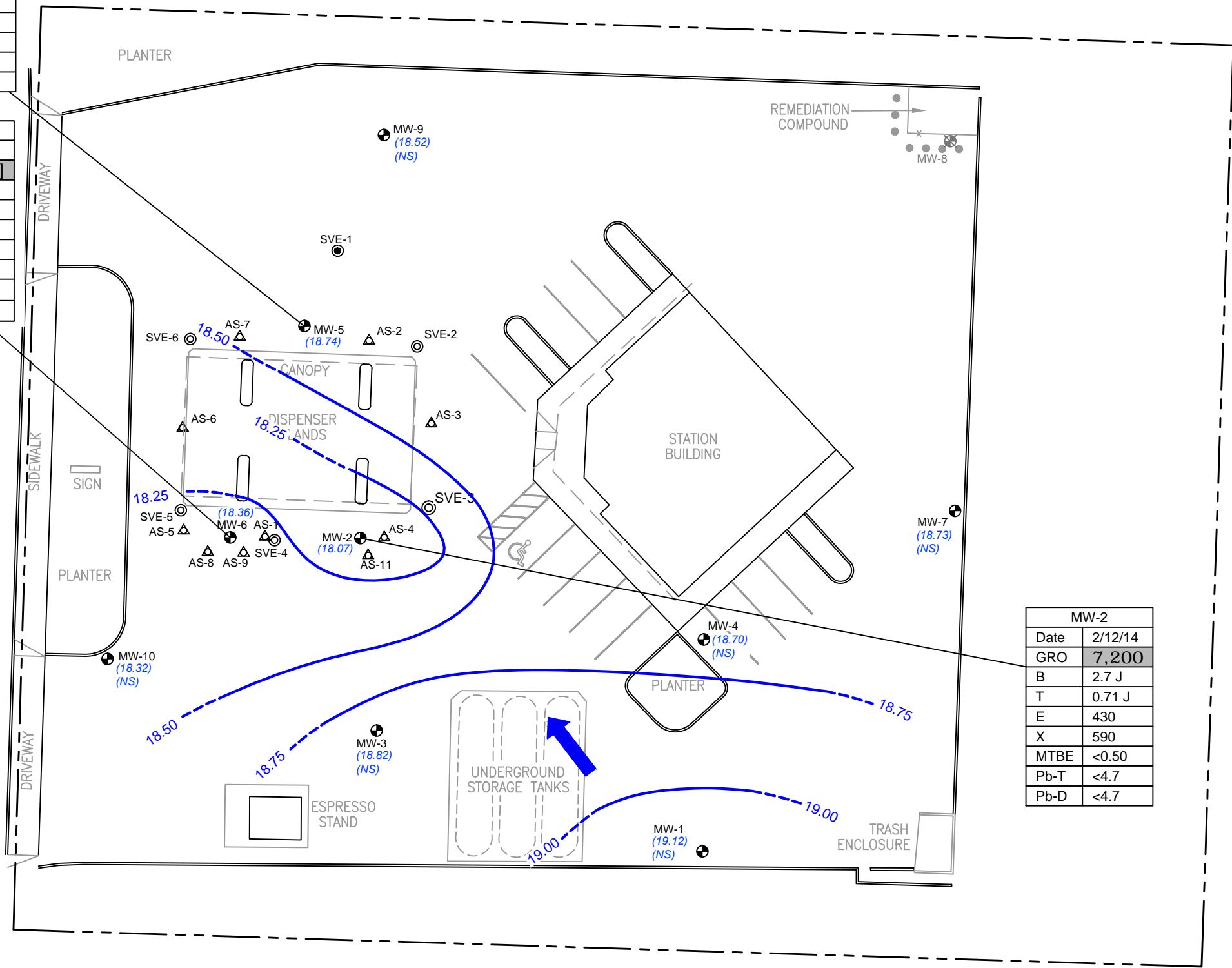
| SAMPLE ID | |
|-----------|---|
| Date | Date of Sample |
| GRO | Total Petroleum Hydrocarbons in the Gasoline Range Organics |
| B | Benzene |
| T | Toluene |
| E | Ethylbenzene |
| X | Total Xylenes |
| MTBE | Methyl Tertiary Butyl Ether |
| Pb-T | Total Lead |
| Pb-D | Dissolved Lead |

- NOTES:
- ALL CONCENTRATIONS ARE MEASURED IN MICROGRAMS PER LITER (µg/L)
 - BOLD** = ANALYTE DETECTED ABOVE MODEL TOXICS CONTROL ACT (MTCA) METHOD A CLEANUP LEVELS
 - NS = NOT SAMPLED
 - [] = DUPLICATE SAMPLE



BP WEST COAST PRODUCTS, LLC.
 FORMER ARCO FACILITY No. 5544
 19918 68TH AVENUE SOUTH, KENT, WASHINGTON
ANNUAL SITE STATUS REPORT 2014

**GROUNDWATER ELEVATION CONTOURS
 WITH ANALYTICAL RESULTS
 FEBRUARY 12, 2014**

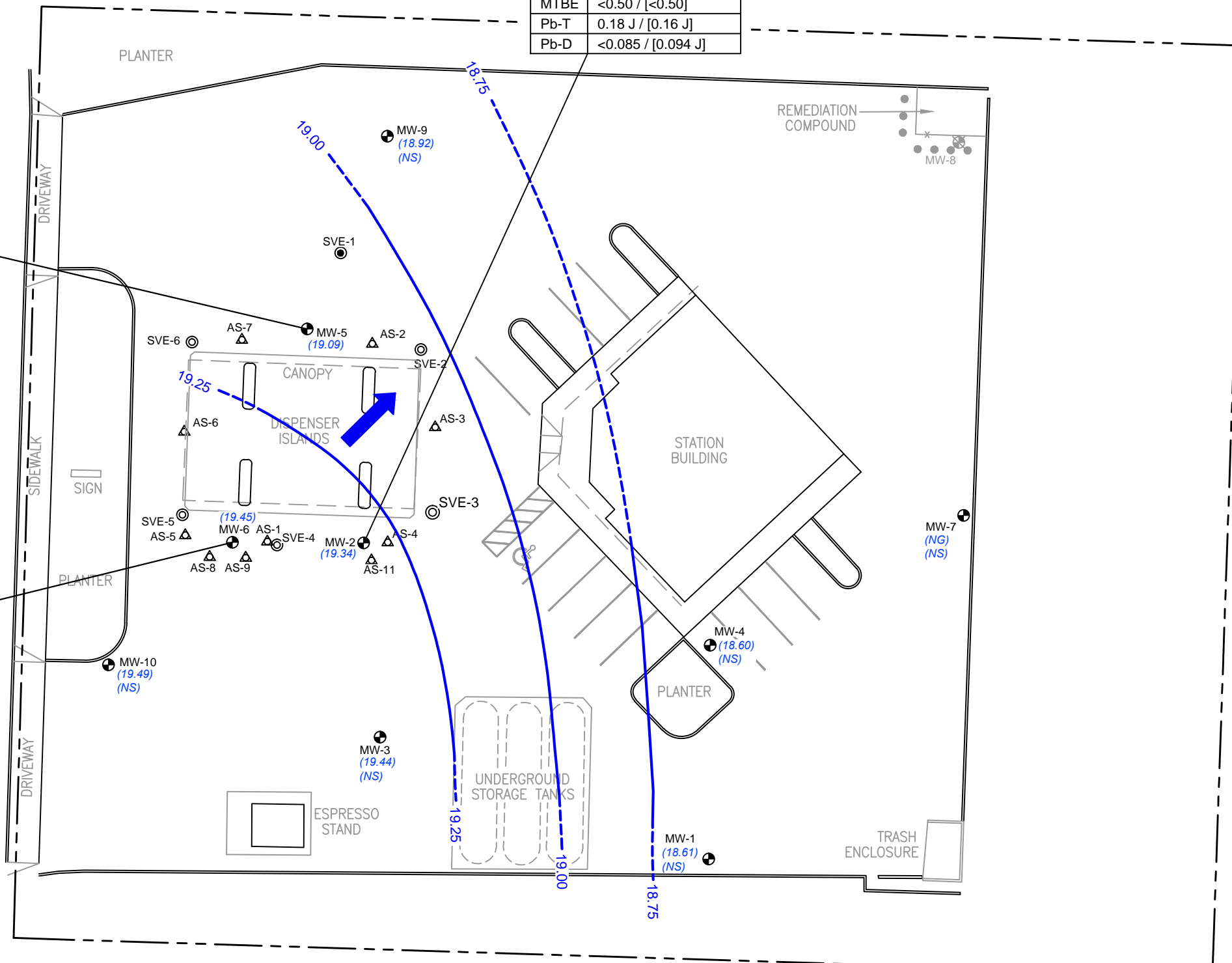


CITY:\Redd\DIV\GROUP\Report\DE\Report\LD\Opt\PIC\Opt\PM\Report\TM\Opt\LYR\Opt\ON\OFF\REF\ARCADIS\US\Office\BAA\Emeryville\CA\ENVCAD\Emeryville\ACT\GPO\BPN\WA\39\Annual2014\DWG\GPO\BPN\WA\39\W06.dwg
 LAYOUT: 6 SAVED: 3/10/2015 10:59 AM ACADVER: 18.1S (LMS TECH) PAGES: 6 PLOTSETUP: --- PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 3/23/2015 11:10 AM BY: HUBATCH, RICK

| MW-5 | |
|------|-----------|
| Date | 5/14/2014 |
| GRO | 100 J |
| B | 2.3 |
| T | <0.50 |
| E | <0.50 |
| X | <0.50 |
| MTBE | 1.2 |
| Pb-T | 0.12 J |
| Pb-D | 0.21 J |

| MW-6 | |
|------|---------------|
| Date | 5/14/2014 |
| GRO | 14,000 |
| B | <2.5 |
| T | <2.5 |
| E | 57 |
| X | 420 |
| MTBE | <2.5 |
| Pb-T | 0.17 J |
| Pb-D | <0.085 |

| MW-2 | |
|------|------------------------|
| Date | 5/14/2014 |
| GRO | 5,200 / [5,100] |
| B | 2.6 / [2.8] |
| T | 0.79 J / [0.99 J] |
| E | 210 / [230] |
| X | 730 / [710] |
| MTBE | <0.50 / [<0.50] |
| Pb-T | 0.18 J / [0.16 J] |
| Pb-D | <0.085 / [0.094 J] |



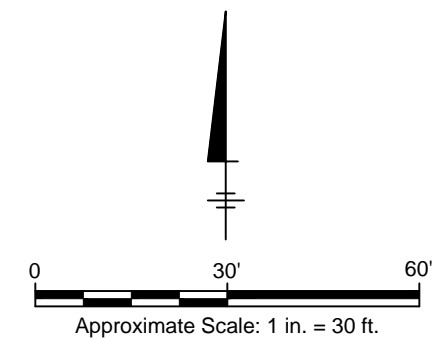
- LEGEND:
- PROPERTY BOUNDARY
 - MW-1 ● MONITORING WELL LOCATION
 - SVE-4 ⊙ VAPOR EXTRACTION WELL LOCATION
 - AS-11 ▲ AIR SPARGE WELL LOCATION
 - MW-8 ✕ ABANDONED MONITORING WELL
 - (18.60) GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL [MSL])
 - GROUNDWATER CONTOUR (DASHED WHERE INFERRED) (FEET ABOVE MSL)
 - ← INFERRED GROUNDWATER FLOW DIRECTION
 - < LESS THAN LABORATORY DETECTION LIMITS
 - J ESTIMATED VALUE - RESULT GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT (MDL) AND LESS THAN THE LIMIT OF QUANTITATION (LOQ)

| SAMPLE ID | |
|-----------|---|
| Date | Date of Sample |
| GRO | Total Petroleum Hydrocarbons in the Gasoline Range Organics |
| B | Benzene |
| T | Toluene |
| E | Ethylbenzene |
| X | Total Xylenes |
| MTBE | Methyl Tertiary Butyl Ether |
| Pb-T | Total Lead |
| Pb-D | Dissolved Lead |

NOTES:
 ALL CONCENTRATIONS ARE MEASURED IN MICROGRAMS PER LITER (µg/L)

BOLD = ANALYTE DETECTED ABOVE MODEL TOXICS CONTROL ACT (MTCA) METHOD A CLEANUP LEVELS

NS = NOT SAMPLED
 NG = NOT GAUGED
 [] = DUPLICATE SAMPLE



BP WEST COAST PRODUCTS, LLC.
 FORMER ARCO FACILITY No. 5544
 19918 68TH AVENUE SOUTH, KENT, WASHINGTON
ANNUAL SITE STATUS REPORT 2014

GROUNDWATER ELEVATION CONTOURS WITH ANALYTICAL RESULTS
 MAY 14, 2014

| MW-12 | |
|-------|------------|
| Date | 12/2/2014 |
| GRO | 2,000 |
| DRO | 960 |
| HO | 130 J |
| B | 310 |
| T | 0.75 J |
| E | 270 |
| X | 360 |
| MTBE | 96 |
| Pb-T | 0.53 J |

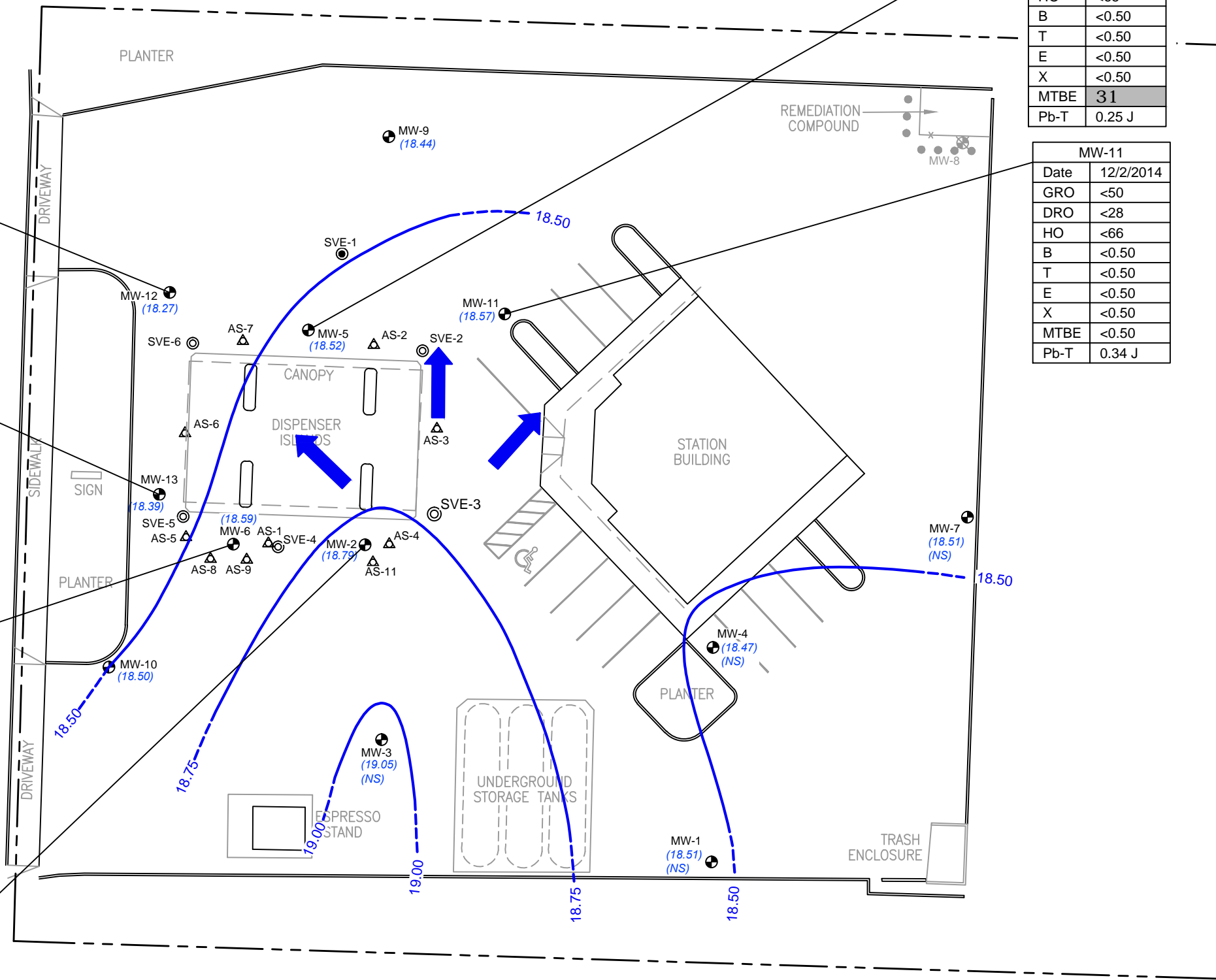
| MW-13 | |
|-------|--------------|
| Date | 12/2/2014 |
| GRO | 11,000 |
| DRO | 1,700 |
| HO | 230 J |
| B | 1.2 |
| T | 0.92 J |
| E | 91 |
| X | 690 |
| MTBE | 25 |
| Pb-T | 0.19 J |

| MW-6 | |
|------|-----------|
| Date | 12/2/2014 |
| GRO | 8,500 |
| DRO | 2,200 |
| HO | 210 J |
| B | 5.0 |
| T | 2.7 |
| E | 110 |
| X | 330 |
| MTBE | 2.6 |
| Pb-T | 0.083 J |

| MW-2 | |
|------|-----------------|
| Date | 12/2/2014 |
| GRO | 8,900 [9,300] |
| DRO | 3,300 [2,400] |
| HO | 180 J [220 J] |
| B | 4.5 [4.1] |
| T | 3.6 [2.5] |
| E | 540 [490] |
| X | 1,000 [830] |
| MTBE | <0.50 [0.59 J] |
| Pb-T | 0.12 J [0.32 J] |

| MW-5 | |
|------|-----------|
| Date | 12/2/2014 |
| GRO | 93 J |
| DRO | 220 |
| HO | <65 |
| B | <0.50 |
| T | <0.50 |
| E | <0.50 |
| X | <0.50 |
| MTBE | 31 |
| Pb-T | 0.25 J |

| MW-11 | |
|-------|-----------|
| Date | 12/2/2014 |
| GRO | <50 |
| DRO | <28 |
| HO | <66 |
| B | <0.50 |
| T | <0.50 |
| E | <0.50 |
| X | <0.50 |
| MTBE | <0.50 |
| Pb-T | 0.34 J |

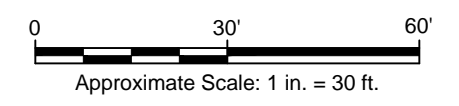


LEGEND:

- PROPERTY BOUNDARY
- MW-1 ● MONITORING WELL LOCATION
- SVE-4 ○ VAPOR EXTRACTION WELL LOCATION
- AS-11 ▲ AIR SPARGE WELL LOCATION
- MW-8 ✕ ABANDONED MONITORING WELL
- (18.51) GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL [MSL])
- 19.00 --- GROUNDWATER ELEVATION CONTOUR (FEET ABOVE MEAN SEA LEVEL [MSL], DASHED WHERE INFERRED)
- ← INFERRED GROUNDWATER FLOW DIRECTION
- < LESS THAN LABORATORY DETECTION LIMITS
- J ESTIMATED VALUE - RESULT GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT (MDL) AND LESS THAN THE LIMIT OF QUANTITATION (LOQ)

| SAMPLE ID | |
|-----------|--|
| Date | Date of Sample |
| GRO | Total Petroleum Hydrocarbons in the Gasoline Range Organics |
| DRO | Total Petroleum Hydrocarbons in the Diesel Range Organics |
| HO | Total Petroleum Hydrocarbons in the Heavy Oil Range Organics |
| B | Benzene |
| T | Toluene |
| E | Ethylbenzene |
| X | Total Xylenes |
| MTBE | Methyl Tertiary Butyl Ether |
| Pb-T | Total Lead |

NOTES:
 ALL CONCENTRATIONS ARE MEASURED IN MICROGRAMS PER LITER (µg/L)
BOLD = ANALYTE DETECTED ABOVE MODEL TOXICS CONTROL ACT (MTCA) METHOD A CLEANUP LEVELS
 NS = NOT SAMPLED
 [] = DUPLICATE SAMPLE



BP WEST COAST PRODUCTS, LLC.
 FORMER ARCO FACILITY No. 5544
 19918 68TH AVENUE SOUTH, KENT, WASHINGTON
ANNUAL SITE STATUS REPORT 2014
GROUNDWATER ELEVATION CONTOURS WITH ANALYTICAL RESULTS
DECEMBER 2, 2014

Appendix A

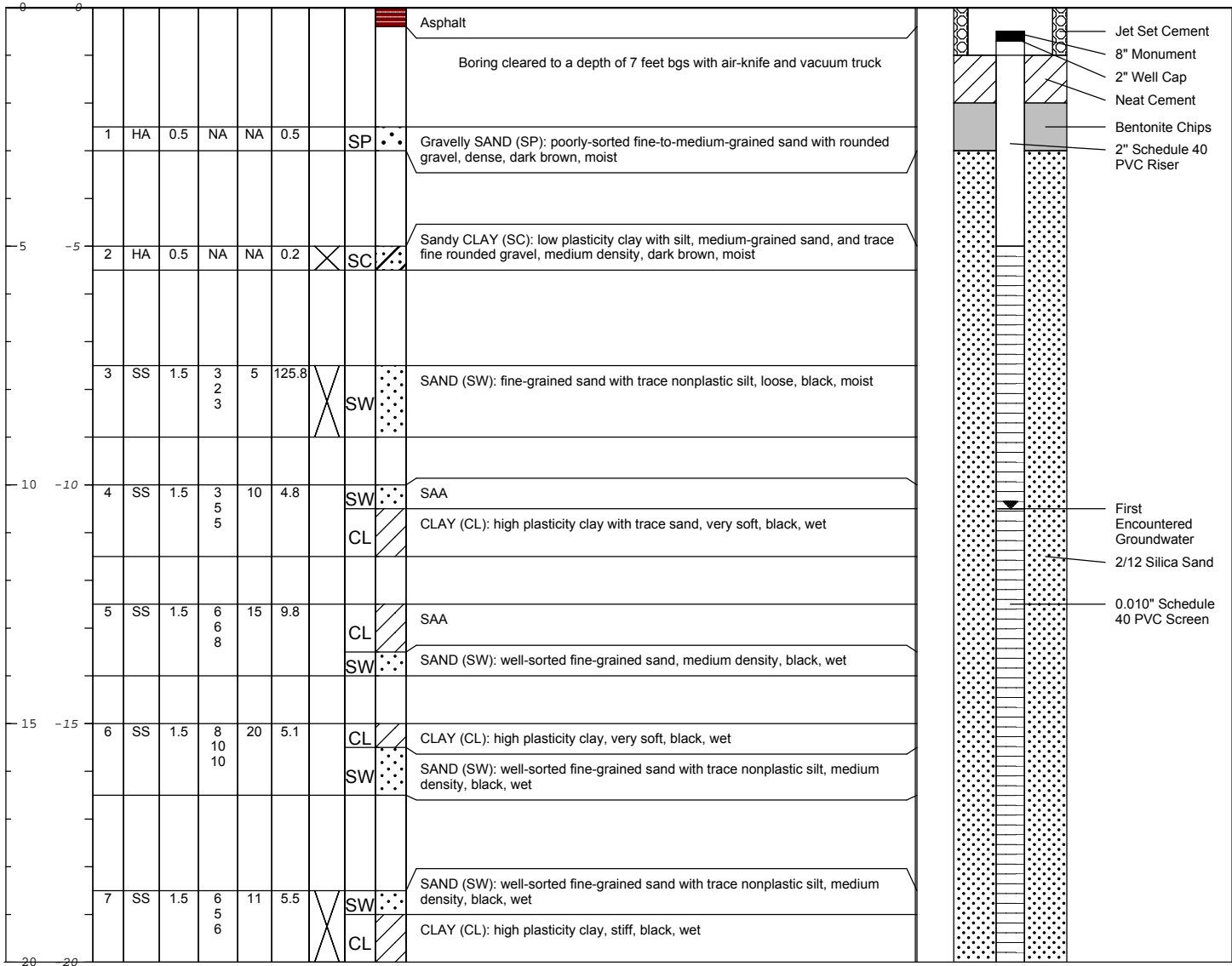
Soil Borings

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: F1111EG
Easting: FGJJI1EH
Casing Elevation: 68.46
Borehole Depth: 20 feet bgs
Surface Elevation: 68.46
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 |
|-------|-----------|-------------------|-----------------|-----------------|-------------|---------|---------------------|-------------------|-----------|-----------------|---------------------------|--------------------------|
|-------|-----------|-------------------|-----------------|-----------------|-------------|---------|---------------------|-------------------|-----------|-----------------|---------------------------|--------------------------|



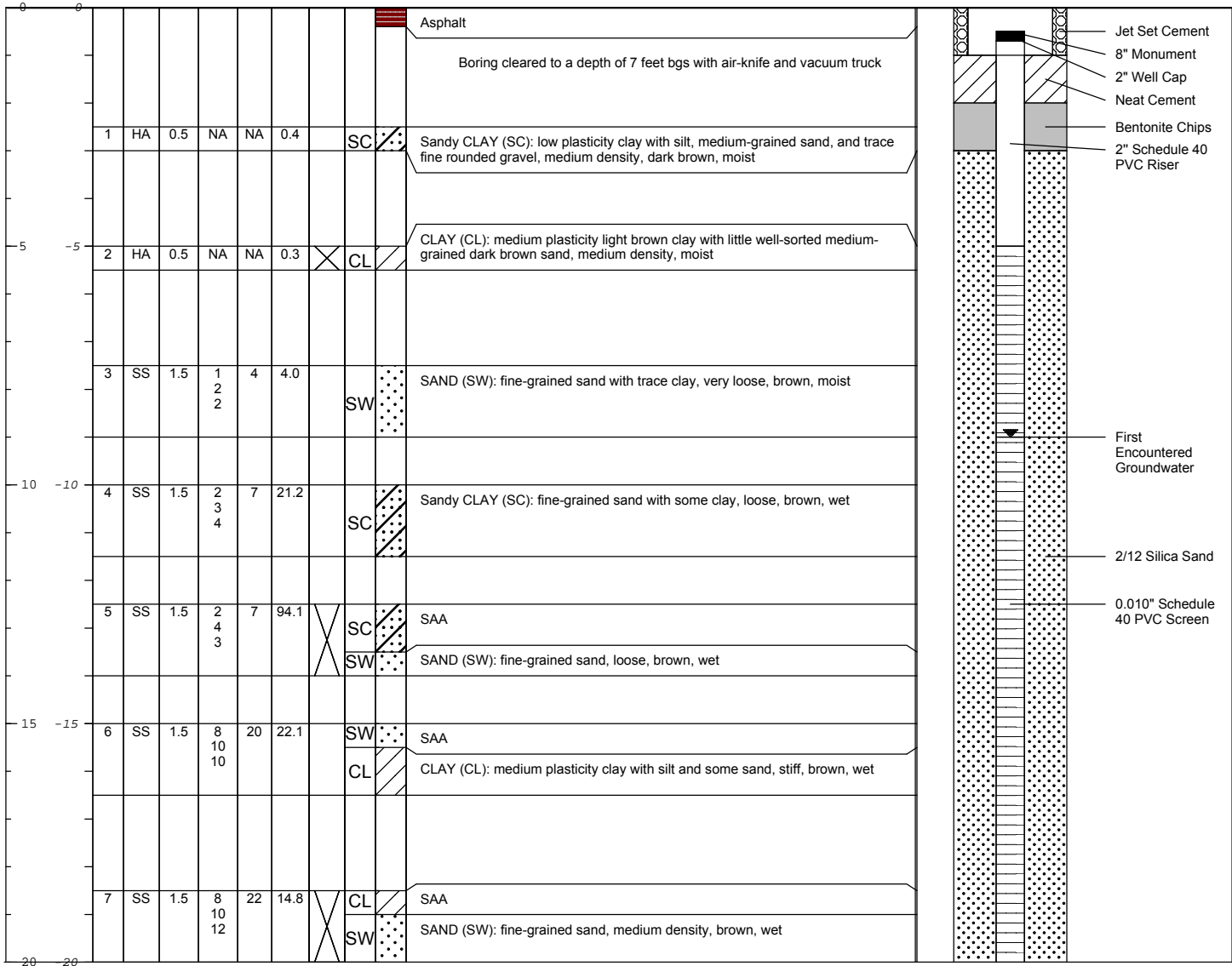
Remarks: bgs = below ground surface
 HSA = Hollow-stem Auger
 NA = Not Available
 PID = Photoionization Detector
 HA = Hand Auger
 SAA = Same as Above
 SS = Spilt Spoon
 ppm = parts per million

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 |
|-------|-----------|-------------------|-----------------|-----------------|-------------|---------|---------------------|-------------------|-----------|-----------------|---------------------------|--------------------------|
|-------|-----------|-------------------|-----------------|-----------------|-------------|---------|---------------------|-------------------|-----------|-----------------|---------------------------|--------------------------|



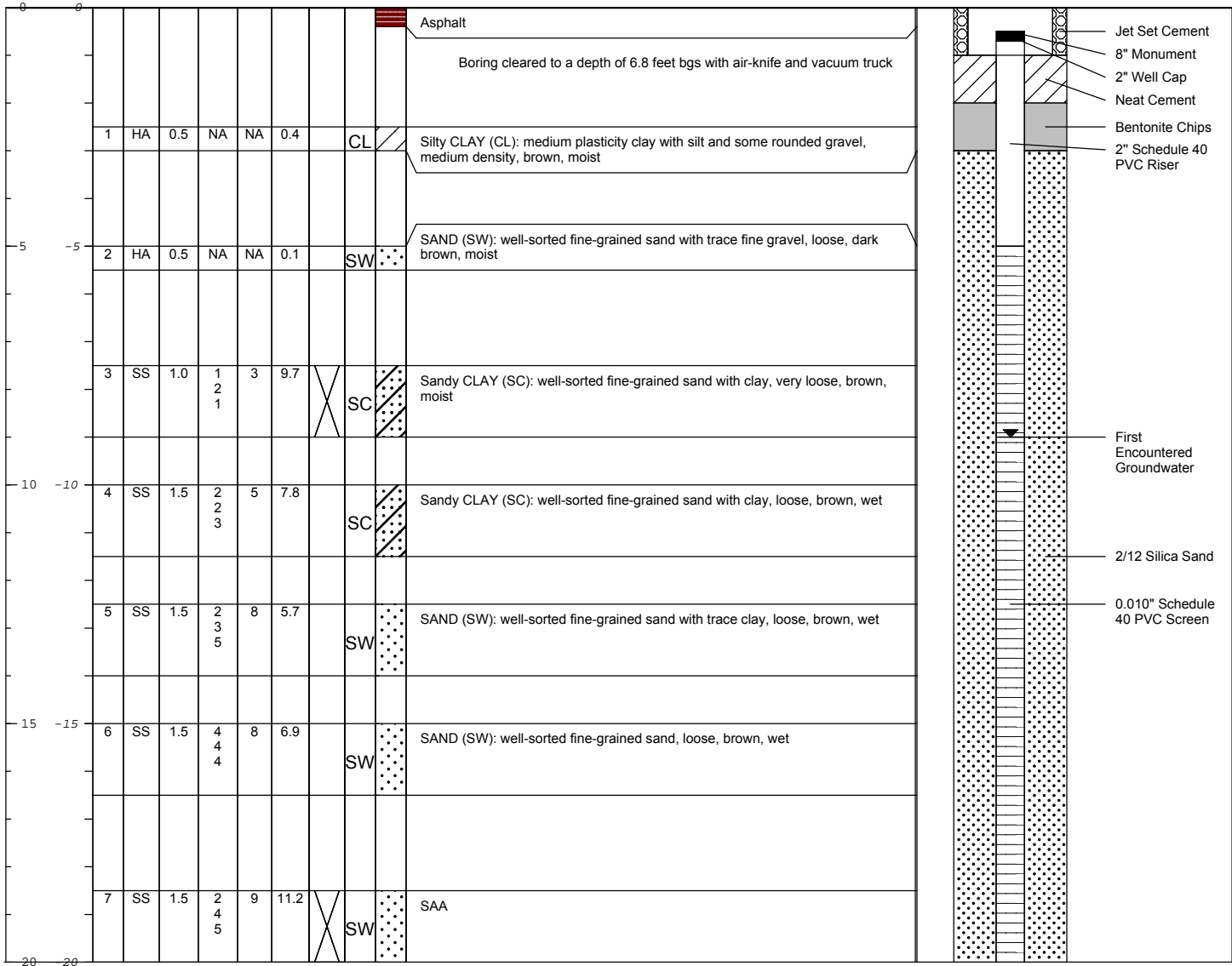
Remarks: bgs = below ground surface
 SS = Split Spoon
 NA = Not Available
 PID = Photoionization Detector
 SAA = Same as Above
 HA = Hand Auger
 HSA = Hollow-stem Auger
 NE = Not Established
 ppm = parts per million

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 |
|-------|-----------|-------------------|-----------------|-----------------|-------------|---------|---------------------|-------------------|-----------|-----------------|---------------------------|--------------------------|
|-------|-----------|-------------------|-----------------|-----------------|-------------|---------|---------------------|-------------------|-----------|-----------------|---------------------------|--------------------------|



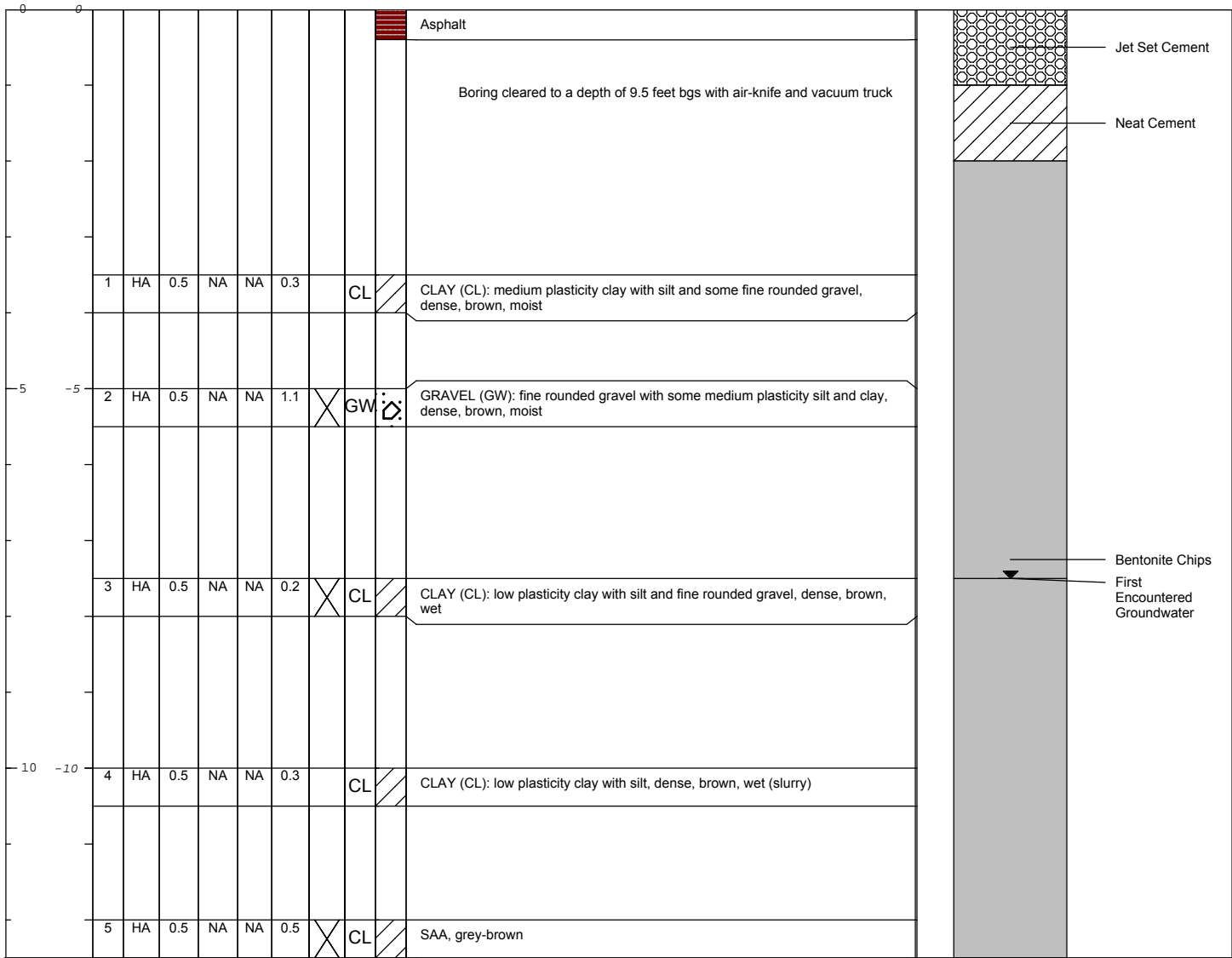
Remarks: bgs = below ground surface HA = Hand Auger
 SS = Split Spoon HSA = Hollow-stem Auger
 NA = Not Available SAA = Same as Above
 PID = Photoionization Detector ppm = parts per million

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 |
|-------|-----------|-------------------|-----------------|-----------------|-------------|-----------|---------------------|-------------------|-----------|-----------------|---------------------------|--------------------------|
|-------|-----------|-------------------|-----------------|-----------------|-------------|-----------|---------------------|-------------------|-----------|-----------------|---------------------------|--------------------------|



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

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

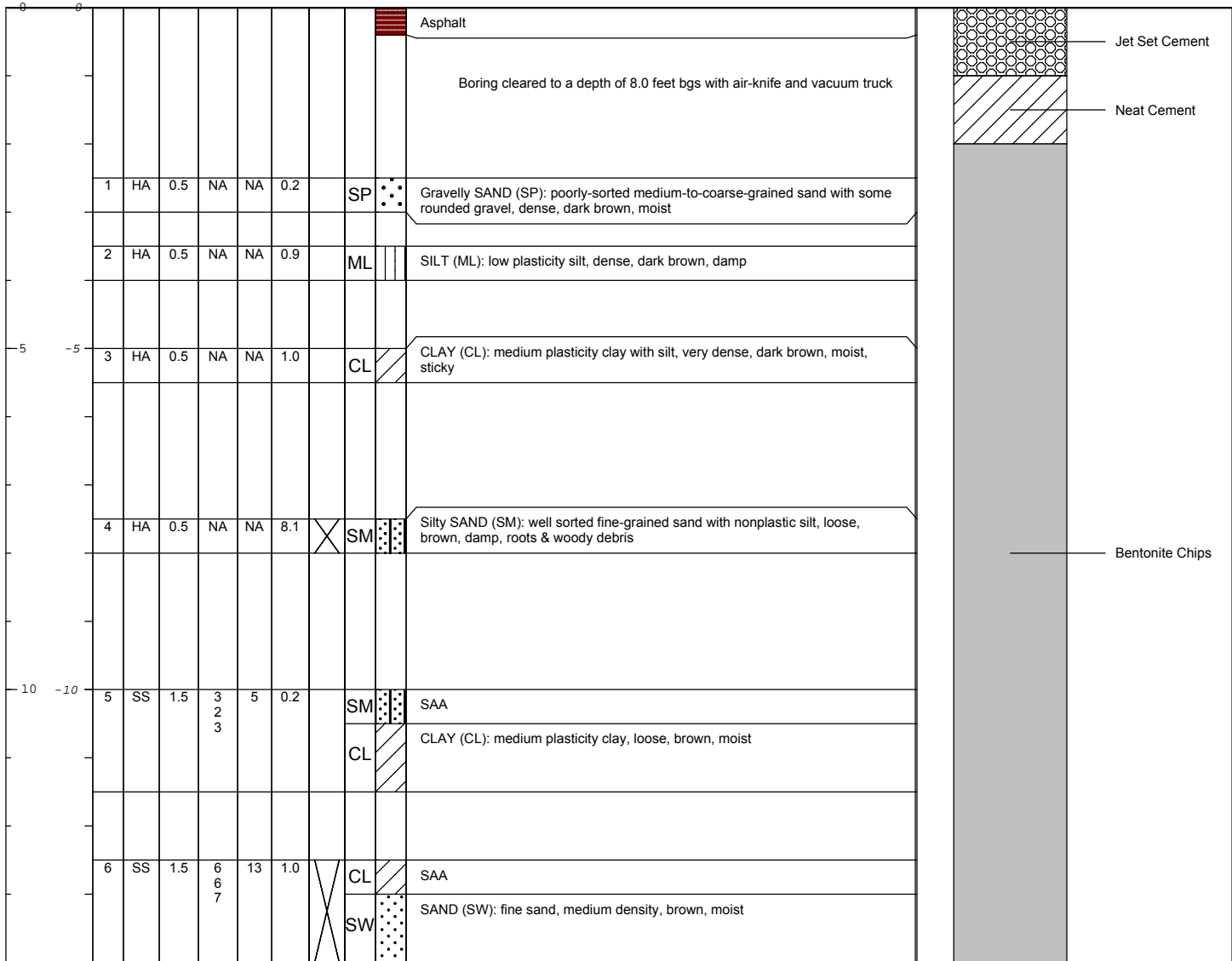
Borehole Depth: 14 feet bgs
Surface Elevation: NE

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

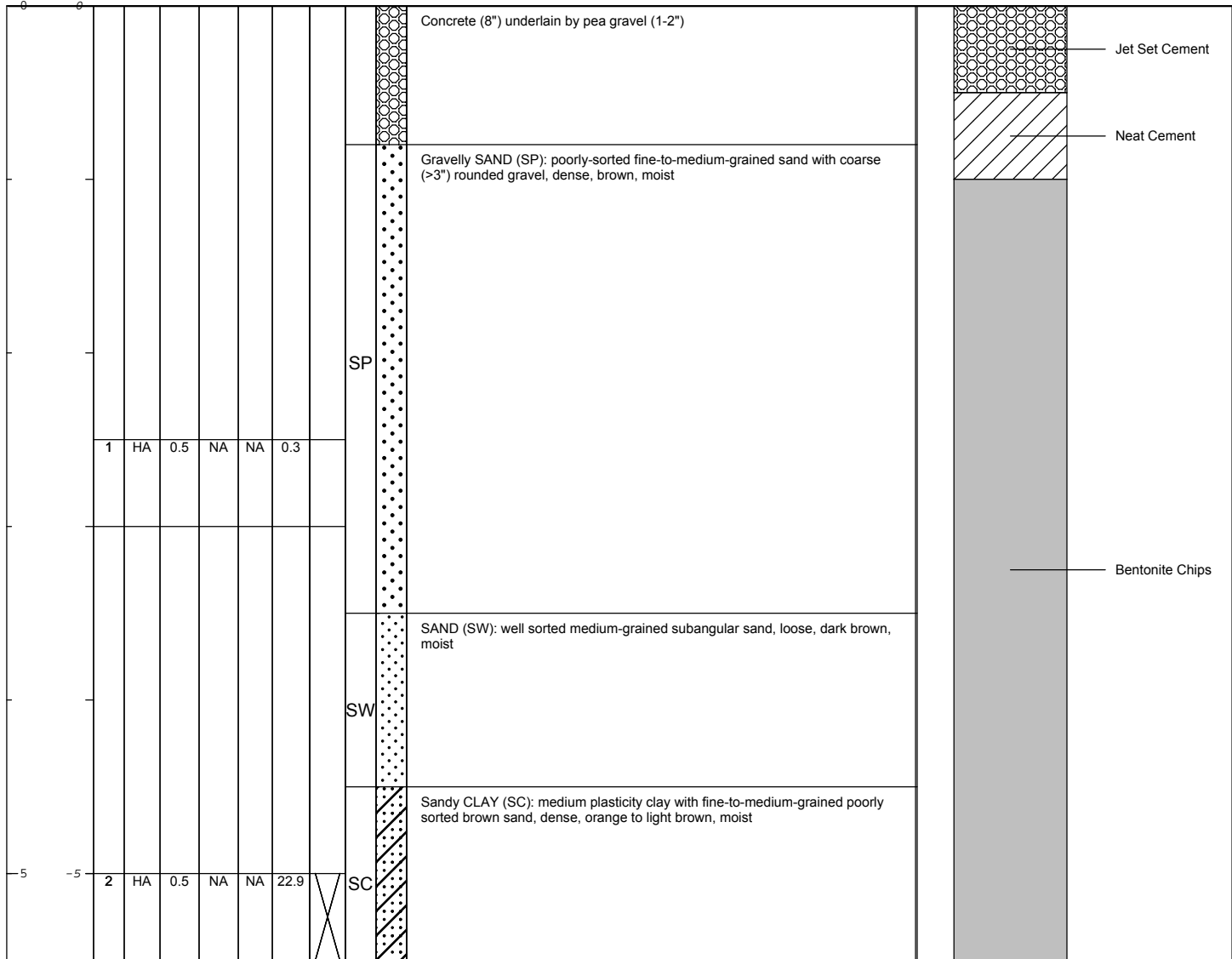
| DEPTH | ELEVATION | Sample Run Number | Sample/Int/Type | Recovery (feet) | Blow Counts | N-Value | PID Headspace (ppm) | Analytical Sample | USCS Code | Geologic Column | Stratigraphic Description | Well/Boring Construction |
|-------|-----------|-------------------|-----------------|-----------------|-------------|---------|---------------------|-------------------|-----------|-----------------|---------------------------|--------------------------|
|-------|-----------|-------------------|-----------------|-----------------|-------------|---------|---------------------|-------------------|-----------|-----------------|---------------------------|--------------------------|




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

| | | |
|--|--|---|
| 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 |
|--|--|---|

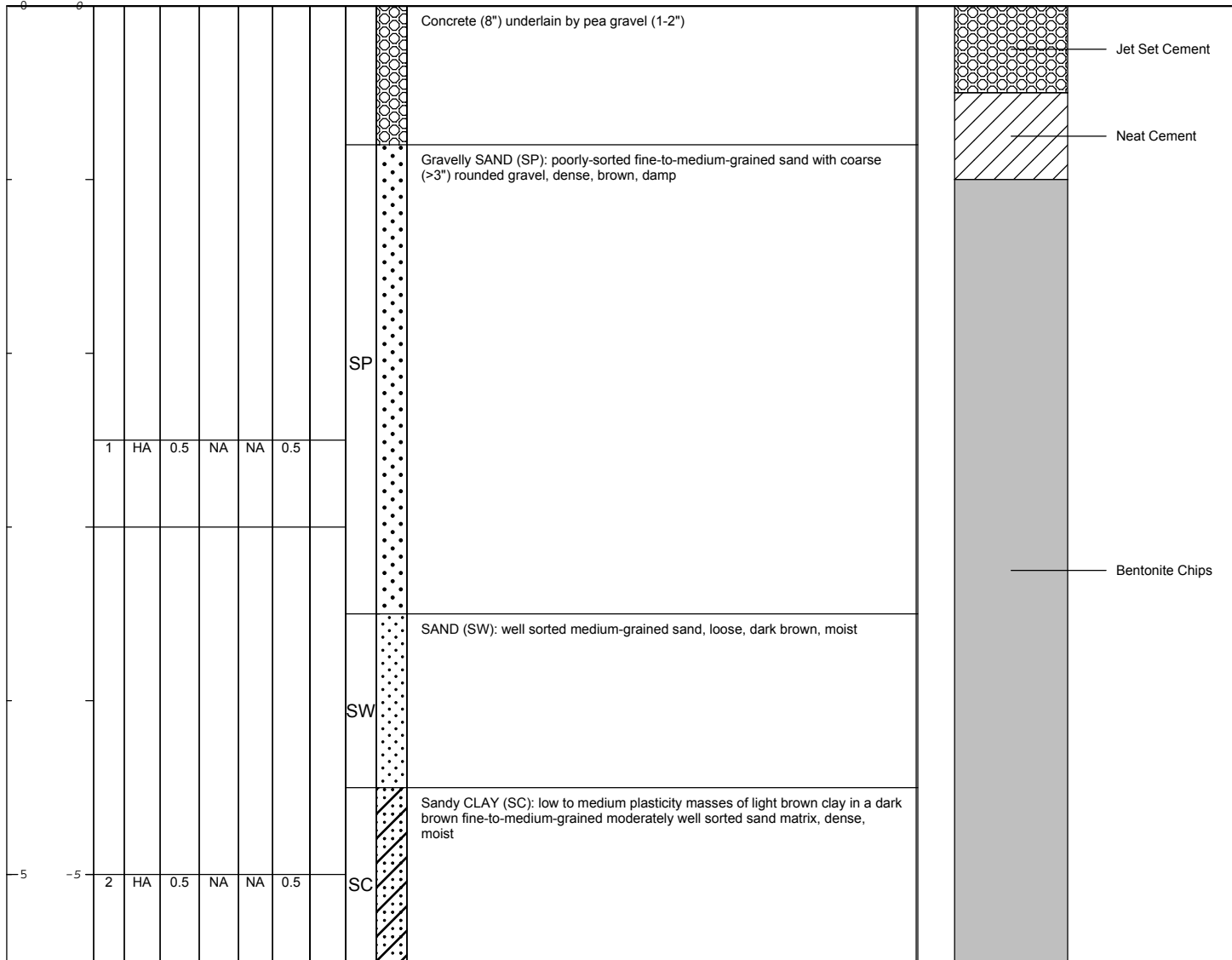
| DEPTH | ELEVATION | Sample Run Number | Sample/Int/Type | Recovery (feet) | Blow Counts | N-Value | PID Headspace (ppm) | Analytical Sample | USCS Code | Geologic Column | Stratigraphic Description | Well/Boring Construction |
|-------|-----------|-------------------|-----------------|-----------------|-------------|---------|---------------------|-------------------|-----------|-----------------|---------------------------|--------------------------|
|-------|-----------|-------------------|-----------------|-----------------|-------------|---------|---------------------|-------------------|-----------|-----------------|---------------------------|--------------------------|




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

| | | |
|--|--|---|
| 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 |
|-------|-----------|-------------------|-----------------|-----------------|-------------|---------|---------------------|-------------------|-----------|-----------------|---------------------------|--------------------------|
|-------|-----------|-------------------|-----------------|-----------------|-------------|---------|---------------------|-------------------|-----------|-----------------|---------------------------|--------------------------|



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

Appendix B

**Soil Laboratory Reports and
Chain-of-Custody Documentation**

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

February 26, 2015

Project: WA-5544

Submittal Date: 08/07/2014
Group Number: 1494445
PO Number: GP09BPNA.WA39
State of Sample Origin: WA

Client Sample Description

MW-12-5-S-072814 Soil
MW-13-5-S-072814 Soil

Lancaster Labs (LL) #

7557815
7557816

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>.

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ARCADIS U.S., Inc.
ARCADIS U.S., Inc.
ARCADIS U.S., Inc.
ARCADIS U.S., Inc.

Attn: Kyle Haslam
Attn: Richard Rodriguez
Attn: Jonathan Flomerfelt
Attn: Ryan Brauchla

Respectfully Submitted,



Natalie R. Luciano
Senior Specialist

(717) 556-7258

Project Name: WA-5544
LL Group #: 1494445

General Comments:

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client. The compliance signature is located on the cover page of the Analysis Reports.

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:**ECY 97-602 NWTPH-DX modified, GC Petroleum Hydrocarbons**

Batch #: 142230011A (Sample number(s): 7557815-7557816 BKG: 7557815)

The duplicate RPD for the following analyte(s) exceeded the acceptance window:
Heavy Range Organics C24-C40

SW-846 6010B, Metals

Batch #: 142235708003 (Sample number(s): 7557815-7557816 UNSPK: P559557 BKG: P559557)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Lead

SM 2540 G-1997, Wet Chemistry

Batch #: 14225820002B (Sample number(s): 7557815-7557816 BKG: 7557816)

The duplicate RPD for the following analyte(s) exceeded the acceptance window:
Moisture

Sample Description: MW-12-5-S-072814 Soil
WA-5544 COC: R218755
19918 68th Ave S - Kent, WA

LL Sample # SW 7557815
LL Group # 1494445
Account # 13255

Project Name: WA-5544

Collected: 07/28/2014 14:40 by RB

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 08/07/2014 12:00

Reported: 02/26/2015 10:21

M12-5

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit* | Dry Limit of Quantitation | Dilution Factor |
|---|-------------------------------|-------------------------------------|------------|-----------------------------|---------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | | SW-846 8260B | | mg/kg | mg/kg | |
| 10237 | Benzene | 71-43-2 | 0.0010 J | 0.00056 | 0.0056 | 0.82 |
| 10237 | Ethylbenzene | 100-41-4 | N.D. | 0.0011 | 0.0056 | 0.82 |
| 10237 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.00056 | 0.0056 | 0.82 |
| 10237 | Toluene | 108-88-3 | N.D. | 0.0011 | 0.0056 | 0.82 |
| 10237 | Xylene (Total) | 1330-20-7 | N.D. | 0.0011 | 0.0056 | 0.82 |
| GC Volatiles | | | | | | |
| | | ECY 97-602 NWTPH-Gx | | mg/kg | mg/kg | |
| 02005 | NWTPH-GX Soil C7-C12 | n.a. | N.D. | 1.4 | 7.0 | 25.66 |
| GC Petroleum Hydrocarbons | | | | | | |
| | | ECY 97-602 NWTPH-Dx modified | | mg/kg | mg/kg | |
| 08272 | Diesel Range Organics C12-C24 | n.a. | N.D. | 4.1 | 9.5 | 1 |
| 08272 | Heavy Range Organics C24-C40 | n.a. | N.D. | 14 | 41 | 1 |
| Metals | | | | | | |
| | | SW-846 6010B | | mg/kg | mg/kg | |
| 06955 | Lead | 7439-92-1 | 6.65 | 0.664 | 1.99 | 1 |
| Wet Chemistry | | | | | | |
| | | SM 2540 G-1997 | | % | % | |
| 00111 | Moisture | n.a. | 26.2 | 0.50 | 0.50 | 1 |
| Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis. | | | | | | |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was originally submitted to the laboratory on 07/30/14 at 09:10. We received authorization for further testing on 08/07/14.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|---------------------|--------|--------------|------------------------|----------------------|-----------------|
| 10237 | BTEX/MTBE | SW-846 8260B | 1 | X142221AA | 08/10/2014 14:53 | Christopher G Torres | 0.82 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 1 | 201422035316 | 07/28/2014 14:40 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 2 | 201422035316 | 07/28/2014 14:40 | Client Supplied | 1 |
| 02005 | NWTPH-GX Soil C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14220A31A | 08/09/2014 00:23 | Marie D Beamenderfer | 25.66 |
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 1 | 201421935305 | 07/28/2014 14:40 | Client Supplied | n.a. |

*=This limit was used in the evaluation of the final result

Sample Description: MW-12-5-S-072814 Soil
WA-5544 COC: R218755
19918 68th Ave S - Kent, WA

LL Sample # SW 7557815
LL Group # 1494445
Account # 13255

Project Name: WA-5544

Collected: 07/28/2014 14:40 by RB

Atlantic Richfield c/o ARCADIS

Submitted: 08/07/2014 12:00

Suite 600

Reported: 02/26/2015 10:21

630 Plaza Drive

Highlands Ranch CO 80129

M12-5

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|-----------------------------|---------------------------------|--------|--------------|------------------------|---------------------------|-----------------|
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 2 | 201421935305 | 07/28/2014 14:40 | Client Supplied | n.a. |
| 08272 | NWTPH-Dx soil | ECY 97-602 NWTPH-Dx modified | 1 | 142230011A | 08/13/2014 19:04 | Glorines Suarez-Rivera | 1 |
| 11234 | WA DRO NW DX Soils (Non SG) | ECY 97-602 NWTPH-Dx 06/97 | 1 | 142230011A | 08/11/2014 18:30 | Sally L Appleyard | 1 |
| 06955 | Lead | SW-846 6010B | 1 | 142235708003 | 08/13/2014 02:36 | Elaine F Stoltzfus | 1 |
| 05708 | SW SW846 ICP/ICP MS Digest | SW-846 3050B | 1 | 142235708003 | 08/12/2014 09:28 | James L Mertz | 1 |
| 00111 | Moisture | SM 2540 G-1997 | 1 | 14225820002B | 08/13/2014 19:50 | Scott W Freisher | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-13-5-S-072814 Soil
WA-5544 COC: R218755
19918 68th Ave S - Kent, WA

LL Sample # SW 7557816
LL Group # 1494445
Account # 13255

Project Name: WA-5544

Collected: 07/28/2014 13:20 by RB

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 08/07/2014 12:00

Reported: 02/26/2015 10:21

M13-5

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit* | Dry Limit of Quantitation | Dilution Factor |
|---|-------------------------------|-------------------------------------|------------|-----------------------------|---------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | | SW-846 8260B | | mg/kg | mg/kg | |
| 10237 | Benzene | 71-43-2 | 0.0031 J | 0.00064 | 0.0064 | 0.96 |
| 10237 | Ethylbenzene | 100-41-4 | N.D. | 0.0013 | 0.0064 | 0.96 |
| 10237 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.00064 | 0.0064 | 0.96 |
| 10237 | Toluene | 108-88-3 | N.D. | 0.0013 | 0.0064 | 0.96 |
| 10237 | Xylene (Total) | 1330-20-7 | N.D. | 0.0013 | 0.0064 | 0.96 |
| GC Volatiles | | | | | | |
| | | ECY 97-602 NWTPH-Gx | | mg/kg | mg/kg | |
| 02005 | NWTPH-GX Soil C7-C12 | n.a. | N.D. | 1.5 | 7.6 | 28.21 |
| GC Petroleum Hydrocarbons | | | | | | |
| | | ECY 97-602 NWTPH-Dx modified | | mg/kg | mg/kg | |
| 08272 | Diesel Range Organics C12-C24 | n.a. | N.D. | 4.0 | 9.4 | 1 |
| 08272 | Heavy Range Organics C24-C40 | n.a. | 17 J | 13 | 40 | 1 |
| Metals | | | | | | |
| | | SW-846 6010B | | mg/kg | mg/kg | |
| 06955 | Lead | 7439-92-1 | 6.33 | 0.660 | 1.98 | 1 |
| Wet Chemistry | | | | | | |
| | | SM 2540 G-1997 | | % | % | |
| 00111 | Moisture | n.a. | 25.7 | 0.50 | 0.50 | 1 |
| Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis. | | | | | | |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was originally submitted to the laboratory on 07/30/14 at 09:10. We received authorization for further testing on 08/07/14.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|---------------------|--------|--------------|------------------------|----------------------|-----------------|
| 10237 | BTEX/MTBE | SW-846 8260B | 1 | X142221AA | 08/10/2014 15:16 | Christopher G Torres | 0.96 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 1 | 201422035316 | 07/28/2014 13:20 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 2 | 201422035316 | 07/28/2014 13:20 | Client Supplied | 1 |
| 02005 | NWTPH-GX Soil C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14220A31A | 08/09/2014 01:00 | Marie D Beamenderfer | 28.21 |
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 1 | 201421935305 | 07/28/2014 13:20 | Client Supplied | n.a. |

*=This limit was used in the evaluation of the final result

Sample Description: MW-13-5-S-072814 Soil
WA-5544 COC: R218755
19918 68th Ave S - Kent, WA

LL Sample # SW 7557816
LL Group # 1494445
Account # 13255

Project Name: WA-5544

Collected: 07/28/2014 13:20 by RB

Atlantic Richfield c/o ARCADIS

Suite 600

Submitted: 08/07/2014 12:00

630 Plaza Drive

Reported: 02/26/2015 10:21

Highlands Ranch CO 80129

M13-5

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|-----------------------------|---------------------------------|--------|--------------|------------------------|---------------------------|-----------------|
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 2 | 201421935305 | 07/28/2014 13:20 | Client Supplied | n.a. |
| 08272 | NWTPH-Dx soil | ECY 97-602 NWTPH-Dx modified | 1 | 142230011A | 08/13/2014 20:11 | Glorines Suarez-Rivera | 1 |
| 11234 | WA DRO NW DX Soils (Non SG) | ECY 97-602 NWTPH-Dx 06/97 | 1 | 142230011A | 08/11/2014 18:30 | Sally L Appleyard | 1 |
| 06955 | Lead | SW-846 6010B | 1 | 142235708003 | 08/13/2014 02:40 | Elaine F Stoltzfus | 1 |
| 05708 | SW SW846 ICP/ICP MS Digest | SW-846 3050B | 1 | 142235708003 | 08/12/2014 09:28 | James L Mertz | 1 |
| 00111 | Moisture | SM 2540 G-1997 | 1 | 14225820002B | 08/13/2014 19:50 | Scott W Freisher | 1 |

*=This limit was used in the evaluation of the final result

REVISED

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 02/26/15 at 10:21 AM

Group Number: 1494445

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

| <u>Analysis Name</u> | <u>Blank Result</u> | <u>Blank MDL**</u> | <u>Blank LOQ</u> | <u>Report Units</u> | <u>LCS %REC</u> | <u>LCSD %REC</u> | <u>LCS/LCSD Limits</u> | <u>RPD</u> | <u>RPD Max</u> |
|-------------------------------|-----------------------------------|--------------------|------------------|---------------------|-----------------|------------------|------------------------|------------|----------------|
| Batch number: X142221AA | Sample number(s): 7557815-7557816 | | | | | | | | |
| Benzene | N.D. | 0.00050 | 0.0050 | mg/kg | 97 | 94 | 80-120 | 4 | 30 |
| Ethylbenzene | N.D. | 0.0010 | 0.0050 | mg/kg | 100 | 96 | 80-120 | 4 | 30 |
| Methyl Tertiary Butyl Ether | N.D. | 0.00050 | 0.0050 | mg/kg | 94 | 91 | 69-126 | 4 | 30 |
| Toluene | N.D. | 0.0010 | 0.0050 | mg/kg | 99 | 94 | 80-120 | 5 | 30 |
| Xylene (Total) | N.D. | 0.0010 | 0.0050 | mg/kg | 100 | 96 | 80-120 | 4 | 30 |
| Batch number: 14220A31A | Sample number(s): 7557815-7557816 | | | | | | | | |
| NWTPH-GX Soil C7-C12 | N.D. | 1.0 | 5.0 | mg/kg | 94 | 97 | 65-120 | 3 | 30 |
| Batch number: 142230011A | Sample number(s): 7557815-7557816 | | | | | | | | |
| Diesel Range Organics C12-C24 | N.D. | 3.0 | 7.0 | mg/kg | 90 | | 60-120 | | |
| Heavy Range Organics C24-C40 | N.D. | 10. | 30 | mg/kg | | | | | |
| Batch number: 142235708003 | Sample number(s): 7557815-7557816 | | | | | | | | |
| Lead | N.D. | 0.500 | 1.50 | mg/kg | 105 | | 80-120 | | |
| Batch number: 14225820002B | Sample number(s): 7557815-7557816 | | | | | | | | |
| Moisture | | | | | 100 | | 99-101 | | |

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

| <u>Analysis Name</u> | <u>MS %REC</u> | <u>MSD %REC</u> | <u>MS/MSD Limits</u> | <u>RPD</u> | <u>RPD MAX</u> | <u>BKG Conc</u> | <u>DUP Conc</u> | <u>DUP RPD</u> | <u>Dup RPD Max</u> |
|-------------------------------|---|-----------------|----------------------|------------|----------------|-----------------|-----------------|----------------|--------------------|
| Batch number: 142230011A | Sample number(s): 7557815-7557816 BKG: 7557815 | | | | | | | | |
| Diesel Range Organics C12-C24 | | | | | | N.D. | N.D. | 0 (1) | 20 |
| Heavy Range Organics C24-C40 | | | | | | N.D. | 17 | J 200* (1) | 20 |
| Batch number: 142235708003 | Sample number(s): 7557815-7557816 UNSPK: P559557 BKG: P559557 | | | | | | | | |
| Lead | -6 (2) | -50 (2) | 75-125 | 8 | 20 | 84.2 | 71.9 | 16 | 20 |
| Batch number: 14225820002B | Sample number(s): 7557815-7557816 BKG: 7557816 | | | | | | | | |
| Moisture | | | | | | 25.7 | 27.5 | 7* | 5 |

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

REVISED

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 02/26/15 at 10:21 AM

Group Number: 1494445

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE
Batch number: X142221AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---------|----------------------|-----------------------|------------|----------------------|
| 7557815 | 105 | 105 | 96 | 99 |
| 7557816 | 103 | 100 | 99 | 96 |
| Blank | 102 | 98 | 97 | 98 |
| LCS | 103 | 99 | 98 | 100 |
| LCSD | 103 | 97 | 98 | 99 |
| Limits: | 50-141 | 54-135 | 52-141 | 50-131 |

Analysis Name: NWTPH-GX Soil C7-C12
Batch number: 14220A31A

| | Trifluorotoluene-F |
|---------|--------------------|
| 7557815 | 72 |
| 7557816 | 64 |
| Blank | 94 |
| LCS | 91 |
| LCSD | 93 |
| Limits: | 50-142 |

Analysis Name: NWTPH-Dx soil
Batch number: 142230011A

| | Orthoterphenyl |
|---------|----------------|
| 7557815 | 110 |
| 7557816 | 94 |
| Blank | 109 |
| DUP | 99 |
| LCS | 115 |
| Limits: | 50-150 |

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



BP Site Node Path: _____

Req Due Date (mm/dd/yy): 5-DAY TAT Rush TAT: Yes No

BP Facility No: 5544

Lab Work Order Number: _____

| | | |
|---|---|--|
| Lab Name: Eurofins Lancaster Labs Env LLC | Facility Address: 19918 68 th Avenue South | Consultant/Contractor: ARCADIS |
| Lab Address: 2425 New Holland Pike, Lancaster, PA 17601 | City, State, ZIP Code: Kent, WA | Consultant/Contractor Project No: GPO9BPN.A.WA37 |
| Lab PM: Natalie Lucas | Lead Regulatory Agency: Ecology | Address: 1100 Olive Way, Suite 800, Seattle, WA 98101 |
| Lab Phone: 717-556-7258 | California Global ID No.: | Consultant/Contractor PM: R. Rodriguez |
| Lab Shipping Acct: | Enfos Proposal No: | Phone: 206-726-4751 Email: richard.rodriguez@arcadis-us.com |
| Lab Bottle Order No: | Accounting Mode: Provision ___ OOC-BU ___ OOC-RM ___ | Email EDD To: jennifer.flament@arcadis-us.com and to lab.enfosdoc@bp.com ryan.brauchla@arcadis-us.com |
| Other Info: | Stage: Activity: | Invoice To: BP Contractor <input checked="" type="checkbox"/> |

| BP Project Manager (PM): | | | | Matrix | | No. Containers / Preservative | | | | | | | | | | Requested Analyses | | | | | | | | Report Type & QC Level | | | |
|--------------------------|-----------------------|---------|------|--------------|----------------|-------------------------------|--------------------------|----------------------------|-------------|-------|------|-----|----------|----------------|-------------------|---------------------------|---------------------------|-----------------|-------------------|--------------|---------------|---------------|--------------------------------------|--|--|---|--|
| BP PM Phone: | | | | Soil / Solid | Water / Liquid | Air / Vapor | Is this location a well? | Total Number of Container: | Unpreserved | H2SO4 | HNO3 | HCl | Methanol | GRO by NWTPHGX | BTEX/MTBE by 8021 | DRO/HO w/6 SGL by NWTPHGX | DRO/HO w/6 SGL by NWTPHGX | EDB/EDC by 8021 | EPE Lead by 6010B | TOC by 5310B | EPH by WA EPH | VPH by WA VPH | CPAHs & Total Naphthalene by 827051A | Standard <input checked="" type="checkbox"/> | | Full Data Package ___ | |
| BP PM Email: | | | | | | | | | | | | | | | | | | | | | | | | Comments | | | |
| Lab No. | Sample Description | Date | Time | | | | | | | | | | | | | | | | | | | | | | | | |
| | AUS-HB-3-2.5-S-072814 | 7/28/14 | 1100 | X | | N | 9 | 4 | | | | 3 | 2 | HOLD | | | | | | | | | | | | | |
| | AUS-HB-3-5-S-072814 | 7/28/14 | 1120 | X | | N | 9 | 4 | | | | 3 | 2 | HOLD | | | | | | | | | | | | | |
| | AUS-HB-4-2.5-S-072814 | 7/28/14 | 1210 | X | | N | 9 | 4 | | | | 3 | 2 | HOLD | | | | | | | | | | | | | |
| | AUS-HB-4-5-S-072814 | 7/28/14 | 1230 | X | | N | 9 | 4 | | | | 3 | 2 | X | X | X | HOLD | | | | | | | | | 5-DAY TAT on GRO, BTEX, and DRO/HO without silver gelatin | |
| | MW-11-5-S-072814 | 7/28/14 | 0845 | X | | Y | 9 | 4 | | | | 3 | 2 | HOLD | | | | | | | | | | | | | |
| | MW-12-5-S-072814 | 7/28/14 | 1440 | X | | Y | 9 | 4 | | | | 3 | 2 | HOLD | | | | | | | | | | | | | |
| | MW-13-5-S-072814 | 7/28/14 | 1320 | X | | Y | 9 | 4 | | | | 3 | 2 | HOLD | | | | | | | | | | | | | |
| | Trip Blank | - | - | | | | 5 | | | | | 3 | 2 | X | X | | | | | | X | | | | | HOLD | |

| | | | | | | | | |
|---|-------------------------------|--|---------|------|---------------------------|--|---------|-------|
| Sampler's Name: Ryan Brauchla | Relinquished By / Affiliation | | Date | Time | Accepted By / Affiliation | | Date | Time |
| Sampler's Company: ARCADIS | Ryan Brauchla / ARCADIS | | 7/31/14 | 907 | J. W. / ELLE | | 7/30/14 | 09:10 |
| Shipment Method: 2 nd Day Air Ship Date: 7/29/14 | | | | | Ryan Brauchla / ELLE | | 7/31/14 | 455 |
| Shipment Tracking No: | | | | | | | | |

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: 0.5 °FC | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

6# 1492739
149445

Natalie Luciano

From: Rodriguez, Richard <Richard.Rodriguez@arcadis-us.com>
Sent: Wednesday, July 30, 2014 11:01 AM
To: Natalie Luciano; Flomerfelt, Jonathan
Subject: RE: Bottle requests by 7/25

Yes, this is acceptable

Thanks for letting us know
Rick

From: Natalie Luciano [<mailto:NatalieLuciano@eurofinsUS.com>]
Sent: Wednesday, July 30, 2014 7:44 AM
To: Flomerfelt, Jonathan
Cc: Rodriguez, Richard
Subject: RE: Bottle requests by 7/25

Hello Jonathan,

We got samples from WA-5544 today. The COC had 8021 for BTEX/MTBE. We've typically done these by 8260 especially since we cannot analyze EDB/EDC by 8021. I'm having them entered for 8260, please confirm that this is acceptable.

Can we use 8260 for the other sites as well?

Thank you,
Natalie Luciano
Senior Specialist, Environmental Client Services
Phone: +1 717-556-7258

1

G# 1494445

Natalie Luciano

From: Rodriguez, Richard <Richard.Rodriguez@arcadis-us.com>
Sent: Thursday, August 07, 2014 11:38 AM
To: Natalie Luciano
Cc: Flomerfelt, Jonathan; Haslam, Kyle
Subject: WA-5544 COC ID R218755 - Additional Changes
Attachments: SWA01P0714080708240.pdf

Hi Natalie,

Please see the following changes to the attached COC.

We would like to add samples **MW-12-5-S-72814** and **MW-13-5-S-72814** to the schedule.

Please run the samples for NWTPH-Gx, NWTPH-Dx (W/O SGC), and BTEX, and Lead under a Standard TAT.

Please let me know if you have any additional questions.

Thanks

Rick

Click [here](#) to report this email as spam.



updated on 8/7/14 (RJR) A-13255 G-1494445 S-7557815-16
Laboratory Management Program LaMP Chain of Custody Record R218755 Page 1 of 1

BP Site Node Path: _____
 BP Facility No: 5544

Req Due Date (mm/dd/yy): 5-DAY TAT Rush TAT: Yes No
 Lab Work Order Number: _____

| | | |
|--|---|---|
| Lab Name: <u>Eurofins Lancaster Labs Env LLC</u> | Facility Address: <u>19918 68th Avenue South</u> | Consultant/Contractor: <u>ARCADIS</u> |
| Lab Address: <u>2425 New Holland Pike, Lancaster, PA 17601</u> | City, State, ZIP Code: <u>Kent, WA</u> | Consultant/Contractor Project No: <u>GPOABPNA-WA39</u> |
| Lab PM: <u>Natalie Luciano</u> | Lead Regulatory Agency: <u>Ecology</u> | Address: <u>1100 Olive Way, Suite 800, Seattle, WA 98101</u> |
| Lab Phone: <u>717-556-7258</u> | California Global ID No.: | Consultant/Contractor PM: <u>R. Rodriguez</u> |
| Lab Shipping Acct: | Enfos Proposal No: | Phone: <u>206-726-4751</u> Email: <u>richard.rodriguez@arcadis-us.com</u> |
| Lab Bottle Order No: | Accounting Mode: Provision ___ OOC-BU ___ OOC-RM ___ | Email EDD To: <u>jonathan.flowerfelt@arcadis-us.com</u> and <u>ryan.branchla@arcadis-us.com</u> |
| Other Info: | Stage: Activity: | Invoice To: BP ___ Contractor <input checked="" type="checkbox"/> |

| BP Project Manager (PM): | | | | Matrix | | No. Containers / Preservative | | | | | | | | Requested Analyses | | | | | | | | Report Type & QC Level | | | | | | | | | | | | | | |
|--------------------------|------------------------------|----------------|-------------|-------------------------------------|----------------|-------------------------------------|--------------------------|----------------------------|-------------|-------|------|-----|----------|--------------------|-------------------------------------|-------------------------------------|-------------------------------------|-----------------|-------------------|--------------|---------------|------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| BP PM Phone: | | | | Soil / Solid | Water / Liquid | Air / Vapor | Is this location a well? | Total Number of Containers | Unpreserved | H2SO4 | HNO3 | HCl | Methanol | GRO by NWTPHGX | BTX/MTBE by 8021 | DRO/HO w/6 SGC by NWTPHGX | DRO/HO w/6 SGC by NWTPHGX | EDB/EDL by 8021 | EPE Lead by 6010B | TOC by 5310B | EPH by WA EPH | VPH by WA VPH | CPAHs & Total Naphthalenes by 827025IA | Standard <input checked="" type="checkbox"/> | Full Data Package <input type="checkbox"/> | | | | | | | | | | | |
| BP PM Email: | | | | | | | | | | | | | | | | | | | | | | | | Comments | | | | | | | | | | | | |
| Lab No. | Sample Description | Date | Time | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <u>AUS-HB-3-2.5-S-072814</u> | <u>7/28/14</u> | <u>1100</u> | <input checked="" type="checkbox"/> | | <input checked="" type="checkbox"/> | | <u>9</u> | <u>4</u> | | | | <u>3</u> | <u>2</u> | <u>HOLD</u> | | | | | | | | | | | | | | | | | | | | | |
| | <u>AUS-HB-3-5-S-072814</u> | <u>7/28/14</u> | <u>1120</u> | <input checked="" type="checkbox"/> | | <input checked="" type="checkbox"/> | | <u>9</u> | <u>4</u> | | | | <u>3</u> | <u>2</u> | <u>HOLD</u> | | | | | | | | | | | | | | | | | | | | | |
| | <u>AUS-HB-4-2.5-S-072814</u> | <u>7/28/14</u> | <u>1210</u> | <input checked="" type="checkbox"/> | | <input checked="" type="checkbox"/> | | <u>9</u> | <u>4</u> | | | | <u>3</u> | <u>2</u> | <u>HOLD</u> | | | | | | | | | | | | | | | | | | | | | |
| | <u>AUS-HB-4-5-S-072814</u> | <u>7/28/14</u> | <u>1230</u> | <input checked="" type="checkbox"/> | | <input checked="" type="checkbox"/> | | <u>9</u> | <u>4</u> | | | | <u>3</u> | <u>2</u> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <u>HOLD</u> | | | | | | | | | | | | | | | | | | |
| | <u>MW-11-5-S-072814</u> | <u>7/28/14</u> | <u>0845</u> | <input checked="" type="checkbox"/> | | <input checked="" type="checkbox"/> | | <u>9</u> | <u>4</u> | | | | <u>3</u> | <u>2</u> | <u>HOLD</u> | | | | | | | | | | | | | | | | | | | | | |
| | <u>MW-12-5-S-072814</u> | <u>7/28/14</u> | <u>1440</u> | <input checked="" type="checkbox"/> | | <input checked="" type="checkbox"/> | | <u>9</u> | <u>4</u> | | | | <u>3</u> | <u>2</u> | <u>HOLD</u> | | | | | | | | | | | | | | | | | | | | | |
| | <u>MW-13-5-S-072814</u> | <u>7/28/14</u> | <u>1320</u> | <input checked="" type="checkbox"/> | | <input checked="" type="checkbox"/> | | <u>9</u> | <u>4</u> | | | | <u>3</u> | <u>2</u> | <u>HOLD</u> | | | | | | | | | | | | | | | | | | | | | |
| | <u>Trip Blank</u> | | | | | | | <u>5</u> | | | | | <u>3</u> | <u>2</u> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | |
|--|--------------------------------|--|----------------|-------------|----------------------------|--|----------------|--------------|
| Sampler's Name: <u>Ryan Branchla</u> | Relinquished By / Affiliation | | Date | Time | Accepted By / Affiliation | | Date | Time |
| Sampler's Company: <u>ARCADIS</u> | <u>Ryan Branchla / ARCADIS</u> | | <u>7/30/14</u> | <u>9:07</u> | <u>R. Rodriguez / ELLE</u> | | <u>7/30/14</u> | <u>09:10</u> |
| Shipment Method: <u>2nd Day Air</u> | Ship Date: <u>7/29/14</u> | | | | | | | |
| Shipment Tracking No: | | | | | | | | |

Special Instructions: _____

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: _____ °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

Client: Arcadis

Delivery and Receipt Information

Delivery Method: SeaTac Arrival Timestamp: 07/31/2014 9:55
 Number of Packages: 1 Number of Projects: 1
 State/Province of Origin: WA

Arrival Condition Summary

| | | | |
|--------------------------------------|------------|---------------------------------------|------------------------|
| Shipping Container Sealed: | <u>Yes</u> | Total Trip Blank Qty: | <u>5</u> |
| Custody Seal Present: | <u>Yes</u> | Trip Blank Type: | <u>3-MeOH 2-NaHSO4</u> |
| Custody Seal Intact: | <u>Yes</u> | Air Quality Samples Present: | <u>No</u> |
| Samples Chilled: | <u>Yes</u> | Air Quality Flow Controllers Present: | <u>N/A</u> |
| Paperwork Enclosed: | <u>Yes</u> | Flow Controller Quantity: | <u>0</u> |
| Samples Intact: | <u>Yes</u> | Air Quality Returns: | <u>N/A</u> |
| Missing Samples: | <u>No</u> | | |
| Extra Samples: | <u>No</u> | | |
| Discrepancy in Container Qty on COC: | <u>No</u> | | |
| Sample IDs on COC match Containers: | <u>Yes</u> | | |
| Sample Date/Times match COC: | <u>Yes</u> | | |
| VOA Vial Headspace \geq 6mm: | <u>N/A</u> | | |
| VOA IDs (\geq 6mm): | <u>N/A</u> | | |

Unpacked by Brandy Barclay (2299) at 10:26 on 07/31/2014

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* All Temperatures in °C.

| Cooler # | Thermometer ID | Corrected Temp | Therm. Type | Ice Type | Ice Present? | Ice Container | Samples | |
|----------|----------------|----------------|-------------|----------|--------------|---------------|--------------------------------|----------------|
| | | | | | | | Collected Same Day as Receipt? | Elevated Temp? |
| 1 | DT146 | 0.5 | DT | Wet | Y | Bagged | N | N |

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

| | | | |
|-------------------------|--|-----------------|----------------------------------|
| RL | Reporting Limit | BMQL | Below Minimum Quantitation Level |
| N.D. | none detected | MPN | Most Probable Number |
| TNTC | Too Numerous To Count | CP Units | cobalt-chloroplatinate units |
| IU | International Units | NTU | nephelometric turbidity units |
| umhos/cm | micromhos/cm | ng | nanogram(s) |
| C | degrees Celsius | F | degrees Fahrenheit |
| meq | milliequivalents | lb. | pound(s) |
| g | gram(s) | kg | kilogram(s) |
| µg | microgram(s) | mg | milligram(s) |
| mL | milliliter(s) | L | liter(s) |
| m³ | cubic meter(s) | µL | microliter(s) |
| | | pg/L | picogram/liter |
| < | less than | | |
| > | greater than | | |
| ppm | parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas. | | |
| ppb | parts per billion | | |
| Dry weight basis | Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis. | | |

Laboratory Data Qualifiers:

- B - Analyte detected in the blank
- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and the $<$ Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, ISO17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

February 26, 2015

Project: WA-5544

Submittal Date: 08/02/2014
Group Number: 1493342
PO Number: GP09BPNA.WA39
State of Sample Origin: WA

| <u>Client Sample Description</u> | <u>Lancaster Labs (LL) #</u> |
|----------------------------------|------------------------------|
| MW-11-7.5-S-073014 Soil | 7552813 |
| MW-11-18.5-S-073014 Soil | 7552814 |
| MW-12-12.5-S-073014 Soil | 7552815 |
| MW-12-18.5-S-073014 Soil | 7552816 |
| MW-13-7.5-S-073014 Soil | 7552817 |
| MW-13-18.5-S-073014 Soil | 7552818 |
| AUS-SB-1-12.5-S-073014 Soil | 7552819 |

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/> .

| | | |
|--------------------|--------------------|---------------------------|
| ELECTRONIC COPY TO | ARCADIS U.S., Inc. | Attn: Kyle Haslam |
| ELECTRONIC COPY TO | ARCADIS U.S., Inc. | Attn: Richard Rodriguez |
| ELECTRONIC COPY TO | ARCADIS U.S., Inc. | Attn: Jonathan Flomerfelt |

Respectfully Submitted,



Natalie R. Luciano
Senior Specialist

(717) 556-7258

Project Name: WA-5544
LL Group #: 1493342

General Comments:

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client. The compliance signature is located on the cover page of the Analysis Reports.

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:**SW-846 8260B, GC/MS Volatiles**

Sample #s: 7552817

Reporting limits were raised due to interference from the sample matrix.

ECY 97-602 NWTPH-Dx modified, GC Petroleum Hydrocarbons

Batch #: 142140035A (Sample number(s): 7552813-7552819 BKG: 7552813)

The duplicate RPD for the following analyte(s) exceeded the acceptance window: Diesel Range Organics C12-C24, Heavy Range Organics C24-C40

ECY 97-602 NWTPH-DX modified, GC Petroleum Hydrocarbons w/Si

Batch #: 142250004A (Sample number(s): 7552813, 7552815, 7552817 BKG: 7552813)

The duplicate RPD for the following analyte(s) exceeded the acceptance window: DRO C12-C24 w/Si Gel, HRO C24-C40 w/Si Gel

ECY 97-602 WA EPH, GC Petroleum Hydrocarbons

Batch #: 142250006A (Sample number(s): 7552813, 7552815, 7552817 UNSPK: 7552813 BKG: 7552813)

The recovery(ies) for the following analyte(s) in the MS was outside the acceptance window: >C10-C12 Aliphatic, >C12-C16 Aliphatic, >C16-C21 Aliphatic, >C21-C34 Aliphatic, >C10-C12 Aromatic, >C12-C16 Aromatic, >C16-C21 Aromatic, >C21-C34 Aromatic

The duplicate RPD for the following analyte(s) exceeded the acceptance window: >C10-C12 Aliphatic, >C12-C16 Aliphatic, >C16-C21 Aliphatic, >C21-C34 Aliphatic, >C10-C12 Aromatic, >C12-C16 Aromatic, >C16-C21 Aromatic, >C21-C34 Aromatic

SM 2540 G-1997, Wet Chemistry

Batch #: 14217820002B (Sample number(s): 7552813-7552819 BKG: 7552817)

The duplicate RPD for the following analyte(s) exceeded the acceptance window:
Moisture

Sample Description: MW-11-7.5-S-073014 Soil
WA-5544 COC: R215428
19918 68th Ave S - Kent, WA

LL Sample # SW 7552813
LL Group # 1493342
Account # 13255

Project Name: WA-5544

Collected: 07/30/2014 08:10 by AB

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 08/02/2014 09:45

Reported: 02/26/2015 10:22

K117-

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit* | Dry Limit of Quantitation | Dilution Factor |
|---|-------------------------------|------------|------------|-----------------------------|---------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B | | | | | | |
| 10237 | Benzene | 71-43-2 | 0.00089 J | 0.00064 | 0.0064 | 0.91 |
| 10237 | 1,2-Dibromoethane | 106-93-4 | N.D. | 0.0013 | 0.0064 | 0.91 |
| 10237 | 1,2-Dichloroethane | 107-06-2 | N.D. | 0.0013 | 0.0064 | 0.91 |
| 10237 | Ethylbenzene | 100-41-4 | 0.0033 J | 0.0013 | 0.0064 | 0.91 |
| 10237 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.00064 | 0.0064 | 0.91 |
| 10237 | Toluene | 108-88-3 | N.D. | 0.0013 | 0.0064 | 0.91 |
| 10237 | Xylene (Total) | 1330-20-7 | 0.026 | 0.0013 | 0.0064 | 0.91 |
| GC/MS Semivolatiles SW-846 8270C SIM | | | | | | |
| 10725 | Benzo(a)anthracene | 56-55-3 | N.D. | 0.00092 | 0.0023 | 1 |
| 10725 | Benzo(a)pyrene | 50-32-8 | N.D. | 0.00092 | 0.0023 | 1 |
| 10725 | Benzo(b)fluoranthene | 205-99-2 | N.D. | 0.00092 | 0.0023 | 1 |
| 10725 | Benzo(k)fluoranthene | 207-08-9 | N.D. | 0.00092 | 0.0023 | 1 |
| 10725 | Chrysene | 218-01-9 | 0.0014 J | 0.00046 | 0.0023 | 1 |
| 10725 | Dibenz(a,h)anthracene | 53-70-3 | N.D. | 0.00092 | 0.0023 | 1 |
| 10725 | Indeno(1,2,3-cd)pyrene | 193-39-5 | N.D. | 0.00092 | 0.0023 | 1 |
| 10725 | 1-Methylnaphthalene | 90-12-0 | 0.015 | 0.00092 | 0.0023 | 1 |
| 10725 | 2-Methylnaphthalene | 91-57-6 | 0.024 | 0.00092 | 0.0023 | 1 |
| 10725 | Naphthalene | 91-20-3 | 0.0051 | 0.00092 | 0.0023 | 1 |
| GC Volatiles ECY 97-602 NWTPH-Gx | | | | | | |
| 02005 | NWTPH-GX Soil C7-C12 | n.a. | 3.6 J | 1.7 | 8.4 | 30.16 |
| GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified | | | | | | |
| 08272 | Diesel Range Organics C12-C24 | n.a. | 630 | 4.2 | 9.8 | 1 |
| 08272 | Heavy Range Organics C24-C40 | n.a. | 470 | 14 | 42 | 1 |
| GC Petroleum Hydrocarbons ECY 97-602 WA EPH | | | | | | |
| 05970 | >C10-C12 Aliphatic | n.a. | 2.4 J | 1.4 | 7.0 | 1 |
| 05970 | >C10-C12 Aromatic | n.a. | N.D. | 1.4 | 7.0 | 1 |
| 05970 | >C12-C16 Aliphatic | n.a. | 10 | 1.4 | 7.0 | 1 |
| 05970 | >C12-C16 Aromatic | n.a. | 2.5 J | 1.4 | 7.0 | 1 |
| 05970 | >C16-C21 Aliphatic | n.a. | 11 | 4.2 | 7.0 | 1 |
| 05970 | >C16-C21 Aromatic | n.a. | 3.8 J | 2.8 | 7.0 | 1 |
| 05970 | >C21-C34 Aliphatic | n.a. | N.D. | 8.4 | 14 | 1 |
| 05970 | >C21-C34 Aromatic | n.a. | N.D. | 2.8 | 7.0 | 1 |
| GC Petroleum Hydrocarbons ECY 97-602 WA VPH | | | | | | |
| 05666 | Benzene | 71-43-2 | N.D. | 0.0779 | 0.779 | 55.61 |
| 05666 | C5-C6 Aliphatic Hydrocarbons | n.a. | N.D. | 3.89 | 7.79 | 55.61 |
| 05666 | C6-C8 Aliphatic Hydrocarbons | n.a. | N.D. | 3.89 | 7.79 | 55.61 |
| 05666 | C8-C10 Aliphatic Hydrocarbons | n.a. | 12.8 | 3.89 | 7.79 | 55.61 |
| 05666 | C8-C10 Aromatic Hydrocarbons | n.a. | 8.79 | 3.89 | 7.79 | 55.61 |
| 05666 | Ethylbenzene | 100-41-4 | 0.0941 J | 0.0779 | 0.779 | 55.61 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-11-7.5-S-073014 Soil
WA-5544 COC: R215428
19918 68th Ave S - Kent, WA

LL Sample # SW 7552813
LL Group # 1493342
Account # 13255

Project Name: WA-5544

Collected: 07/30/2014 08:10 by AB

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 08/02/2014 09:45

Reported: 02/26/2015 10:22

K117-

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit* | Dry Limit of Quantitation | Dilution Factor |
|---|-------------------------------|--------------------------------------|------------|-----------------------------|---------------------------|-----------------|
| GC Petroleum Hydrocarbons | | ECY 97-602 WA VPH | mg/kg | mg/kg | mg/kg | |
| 05666 | Methyl t-butyl ether | 1634-04-4 | N.D. | 0.0779 | 0.779 | 55.61 |
| 05666 | Toluene | 108-88-3 | N.D. | 0.0779 | 0.779 | 55.61 |
| 05666 | o-Xylene | 95-47-6 | 0.263 J | 0.0779 | 0.779 | 55.61 |
| 05666 | m,p-Xylenes | 179601-23-1 | 0.452 J | 0.156 | 1.56 | 55.61 |
| GC Petroleum Hydrocarbons w/Si | | ECY 97-602 NWT PH-Dx modified | mg/kg | mg/kg | mg/kg | |
| 02214 | DRO C12-C24 w/Si Gel | n.a. | 710 | 21 | 49 | 5 |
| 02214 | HRO C24-C40 w/Si Gel | n.a. | 1,100 | 70 | 210 | 5 |
| Metals | | SW-846 6010B | mg/kg | mg/kg | mg/kg | |
| 06955 | Lead | 7439-92-1 | 0.715 J | 0.667 | 2.00 | 1 |
| Wet Chemistry | | SM 5310 B modified-2000 | mg/kg | mg/kg | mg/kg | |
| 02079 | TOC Solids/Sludges Combustion | n.a. | 985 | 298 | 895 | 1 |
| Wet Chemistry | | SM 2540 G-1997 | % | % | % | |
| 00111 | Moisture | n.a. | 28.6 | 0.50 | 0.50 | 1 |
| Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis. | | | | | | |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|------------------------|--------|--------------|------------------------|-------------------------|-----------------|
| 10237 | BTEX, MTBE, EDC, EDB | SW-846 8260B | 1 | A142171AA | 08/05/2014 19:48 | Chelsea B Stong | 0.91 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 1 | 201421435276 | 07/30/2014 08:10 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 2 | 201421435276 | 07/30/2014 08:10 | Client Supplied | 1 |
| 07579 | GC/MS-5g Field Preserv.MeOH-NC | SW-846 5035A | 1 | 201421435276 | 07/30/2014 08:10 | Client Supplied | 1 |
| 10725 | SIM SVOA (microwave) | SW-846 8270C SIM | 1 | 14224SLC026 | 08/14/2014 02:17 | Mark A Clark | 1 |
| 10811 | BNA Soil Microwave SIM | SW-846 3546 | 1 | 14224SLC026 | 08/13/2014 09:30 | Katherine V Dinan | 1 |
| 02005 | NWTPH-GX Soil C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14217A34A | 08/05/2014 21:45 | Marie D Beamenderfer | 30.16 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-11-7.5-S-073014 Soil
WA-5544 COC: R215428
19918 68th Ave S - Kent, WA

LL Sample # SW 7552813
LL Group # 1493342
Account # 13255

Project Name: WA-5544

Collected: 07/30/2014 08:10 by AB

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 08/02/2014 09:45

Reported: 02/26/2015 10:22

K117-

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|-------------------------------|---------------------------------|--------|--------------|------------------------|---------------------------|-----------------|
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 1 | 201421435276 | 07/30/2014 08:10 | Client Supplied | n.a. |
| 08272 | NWTPH-Dx soil | ECY 97-602 NWTPH-Dx modified | 1 | 142140035A | 08/07/2014 17:32 | Glorines Suarez-Rivera | 1 |
| 05970 | WA EPH in Soil | ECY 97-602 WA EPH | 1 | 142250006A | 08/16/2014 06:03 | Heather E Williams | 1 |
| 05970 | WA EPH in Soil | ECY 97-602 WA EPH | 1 | 142250006A | 08/16/2014 06:44 | Heather E Williams | 1 |
| 05666 | WA- VPH soils | ECY 97-602 WA VPH | 1 | 14217A08C | 08/13/2014 11:39 | Nicholas R Rossi | 55.61 |
| 02214 | NWTPH-Dx soil w/Si Gel | ECY 97-602 NWTPH-Dx modified | 1 | 142250004A | 08/14/2014 20:13 | Glorines Suarez-Rivera | 5 |
| 07024 | DRO Alternate Soil Extraction | ECY 97-602 NWTPH-Dx 06/97 | 1 | 142250004A | 08/13/2014 14:40 | Kelli M Barto | 1 |
| 11234 | WA DRO NW DX Soils (Non SG) | ECY 97-602 NWTPH-Dx 06/97 | 1 | 142140035A | 08/05/2014 10:25 | Denise L Trimby | 1 |
| 11213 | WA EPH Soils Extraction | ECY 97-602 WA EPH | 1 | 142250006A | 08/13/2014 14:30 | Kelli M Barto | 1 |
| 00388 | GC - Field Preserved (MA-VPH) | MA DEP VPH modified | 1 | 201422435336 | 07/30/2014 08:10 | Client Supplied | 1 |
| 00497 | Silica Gel Fractionation | SW-846 3630C modified | 1 | 142250006A | 08/14/2014 15:00 | Edwin Ortiz | 1 |
| 06955 | Lead | SW-846 6010B | 1 | 142255708003 | 08/15/2014 15:29 | Eric L Eby | 1 |
| 05708 | SW SW846 ICP/ICP MS Digest | SW-846 3050B | 1 | 142255708003 | 08/14/2014 07:46 | James L Mertz | 1 |
| 02079 | TOC Solids/Sludges Combustion | SM 5310 B modified-2000 | 1 | 14225049531A | 08/13/2014 23:56 | James S Mathiot | 1 |
| 00111 | Moisture | SM 2540 G-1997 | 1 | 14217820002B | 08/05/2014 19:26 | Scott W Freisher | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-11-18.5-S-073014 Soil
WA-5544 COC: R215428
19918 68th Ave S - Kent, WA

LL Sample # SW 7552814
LL Group # 1493342
Account # 13255

Project Name: WA-5544

Collected: 07/30/2014 08:30 by AB

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 08/02/2014 09:45

Reported: 02/26/2015 10:22

K1118

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit* | Dry Limit of Quantitation | Dilution Factor |
|---|-------------------------------|------------|------------|-----------------------------|---------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B | | | | | | |
| 10237 | Benzene | 71-43-2 | N.D. | 0.00055 | 0.0056 | 0.88 |
| 10237 | Ethylbenzene | 100-41-4 | N.D. | 0.0011 | 0.0056 | 0.88 |
| 10237 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.00055 | 0.0056 | 0.88 |
| 10237 | Toluene | 108-88-3 | N.D. | 0.0011 | 0.0056 | 0.88 |
| 10237 | Xylene (Total) | 1330-20-7 | N.D. | 0.0011 | 0.0056 | 0.88 |
| GC Volatiles ECY 97-602 NWTPH-Gx | | | | | | |
| 02005 | NWTPH-GX Soil C7-C12 | n.a. | N.D. | 1.4 | 7.1 | 27.98 |
| GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified | | | | | | |
| 08272 | Diesel Range Organics C12-C24 | n.a. | N.D. | 3.8 | 8.8 | 1 |
| 08272 | Heavy Range Organics C24-C40 | n.a. | N.D. | 13 | 38 | 1 |
| Wet Chemistry SM 2540 G-1997 | | | | | | |
| 00111 | Moisture | n.a. | 20.9 | 0.50 | 0.50 | 1 |
| Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis. | | | | | | |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|------------------------------|--------|--------------|------------------------|----------------------|-----------------|
| 10237 | BTEX, MTBE, EDC, EDB | SW-846 8260B | 1 | A142171AA | 08/05/2014 20:11 | Chelsea B Stong | 0.88 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 1 | 201421435276 | 07/30/2014 08:30 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 2 | 201421435276 | 07/30/2014 08:30 | Client Supplied | 1 |
| 07579 | GC/MS-5g Field Preserv.MeOH-NC | SW-846 5035A | 1 | 201421435276 | 07/30/2014 08:30 | Client Supplied | 1 |
| 02005 | NWTPH-GX Soil C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14217A34A | 08/05/2014 22:21 | Marie D Beamenderfer | 27.98 |
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 1 | 201421435276 | 07/30/2014 08:30 | Client Supplied | n.a. |
| 08272 | NWTPH-Dx soil | ECY 97-602 NWTPH-Dx modified | 1 | 142140035A | 08/06/2014 00:41 | Heather E Williams | 1 |
| 11234 | WA DRO NW DX Soils (Non SG) | ECY 97-602 NWTPH-Dx 06/97 | 1 | 142140035A | 08/05/2014 10:25 | Denise L Trimby | 1 |
| 00111 | Moisture | SM 2540 G-1997 | 1 | 14217820002B | 08/05/2014 19:26 | Scott W Freisher | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-12-12.5-S-073014 Soil
WA-5544 COC: R215428
19918 68th Ave S - Kent, WA

LL Sample # SW 7552815
LL Group # 1493342
Account # 13255

Project Name: WA-5544

Collected: 07/30/2014 11:00 by AB

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 08/02/2014 09:45

Reported: 02/26/2015 10:22

K1212

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit* | Dry Limit of Quantitation | Dilution Factor |
|---|-------------------------------|------------|------------|-----------------------------|---------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B | | | | | | |
| 10237 | Benzene | 71-43-2 | 2.0 | 0.036 | 0.36 | 54.78 |
| 10237 | 1,2-Dibromoethane | 106-93-4 | N.D. | 0.072 | 0.36 | 54.78 |
| 10237 | 1,2-Dichloroethane | 107-06-2 | N.D. | 0.072 | 0.36 | 54.78 |
| 10237 | Ethylbenzene | 100-41-4 | 2.9 | 0.072 | 0.36 | 54.78 |
| 10237 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.036 | 0.36 | 54.78 |
| 10237 | Toluene | 108-88-3 | N.D. | 0.072 | 0.36 | 54.78 |
| 10237 | Xylene (Total) | 1330-20-7 | 6.4 | 0.072 | 0.36 | 54.78 |
| GC/MS Semivolatiles SW-846 8270C SIM | | | | | | |
| 10725 | Benzo(a)anthracene | 56-55-3 | N.D. | 0.00087 | 0.0022 | 1 |
| 10725 | Benzo(a)pyrene | 50-32-8 | N.D. | 0.00087 | 0.0022 | 1 |
| 10725 | Benzo(b)fluoranthene | 205-99-2 | N.D. | 0.00087 | 0.0022 | 1 |
| 10725 | Benzo(k)fluoranthene | 207-08-9 | N.D. | 0.00087 | 0.0022 | 1 |
| 10725 | Chrysene | 218-01-9 | 0.0010 J | 0.00043 | 0.0022 | 1 |
| 10725 | Dibenz(a,h)anthracene | 53-70-3 | N.D. | 0.00087 | 0.0022 | 1 |
| 10725 | Indeno(1,2,3-cd)pyrene | 193-39-5 | N.D. | 0.00087 | 0.0022 | 1 |
| 10725 | 1-Methylnaphthalene | 90-12-0 | 0.0027 | 0.00087 | 0.0022 | 1 |
| 10725 | 2-Methylnaphthalene | 91-57-6 | 0.0032 | 0.00087 | 0.0022 | 1 |
| 10725 | Naphthalene | 91-20-3 | 0.0018 J | 0.00087 | 0.0022 | 1 |
| GC Volatiles ECY 97-602 NWTPH-Gx | | | | | | |
| 02005 | NWTPH-GX Soil C7-C12 | n.a. | 12 | 1.4 | 7.0 | 26.95 |
| GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified | | | | | | |
| 08272 | Diesel Range Organics C12-C24 | n.a. | N.D. | 3.9 | 9.1 | 1 |
| 08272 | Heavy Range Organics C24-C40 | n.a. | N.D. | 13 | 39 | 1 |
| GC Petroleum Hydrocarbons ECY 97-602 WA EPH | | | | | | |
| 05970 | >C10-C12 Aliphatic | n.a. | N.D. | 1.3 | 6.5 | 1 |
| 05970 | >C10-C12 Aromatic | n.a. | N.D. | 1.3 | 6.5 | 1 |
| 05970 | >C12-C16 Aliphatic | n.a. | N.D. | 1.3 | 6.5 | 1 |
| 05970 | >C12-C16 Aromatic | n.a. | N.D. | 1.3 | 6.5 | 1 |
| 05970 | >C16-C21 Aliphatic | n.a. | N.D. | 3.9 | 6.5 | 1 |
| 05970 | >C16-C21 Aromatic | n.a. | N.D. | 2.6 | 6.5 | 1 |
| 05970 | >C21-C34 Aliphatic | n.a. | N.D. | 7.8 | 13 | 1 |
| 05970 | >C21-C34 Aromatic | n.a. | N.D. | 2.6 | 6.5 | 1 |
| GC Petroleum Hydrocarbons ECY 97-602 WA VPH | | | | | | |
| 05666 | Benzene | 71-43-2 | 0.366 J | 0.0946 | 0.946 | 72.45 |
| 05666 | C5-C6 Aliphatic Hydrocarbons | n.a. | N.D. | 4.73 | 9.46 | 72.45 |
| 05666 | C6-C8 Aliphatic Hydrocarbons | n.a. | N.D. | 4.73 | 9.46 | 72.45 |
| 05666 | C8-C10 Aliphatic Hydrocarbons | n.a. | N.D. | 4.73 | 9.46 | 72.45 |
| 05666 | C8-C10 Aromatic Hydrocarbons | n.a. | 6.19 J | 4.73 | 9.46 | 72.45 |
| 05666 | Ethylbenzene | 100-41-4 | 1.50 | 0.0946 | 0.946 | 72.45 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-12-12.5-S-073014 Soil
WA-5544 COC: R215428
19918 68th Ave S - Kent, WA

LL Sample # SW 7552815
LL Group # 1493342
Account # 13255

Project Name: WA-5544

Collected: 07/30/2014 11:00 by AB

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 08/02/2014 09:45

Reported: 02/26/2015 10:22

K1212

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit* | Dry Limit of Quantitation | Dilution Factor |
|---|-------------------------------|--------------------------------------|--------------|-----------------------------|---------------------------|-----------------|
| GC Petroleum Hydrocarbons | | ECY 97-602 WA VPH | mg/kg | mg/kg | mg/kg | |
| 05666 | Methyl t-butyl ether | 1634-04-4 | N.D. | 0.0946 | 0.946 | 72.45 |
| 05666 | Toluene | 108-88-3 | N.D. | 0.0946 | 0.946 | 72.45 |
| 05666 | o-Xylene | 95-47-6 | N.D. | 0.0946 | 0.946 | 72.45 |
| 05666 | m,p-Xylenes | 179601-23-1 | 2.04 | 0.189 | 1.89 | 72.45 |
| GC Petroleum Hydrocarbons w/Si | | ECY 97-602 NWT PH-Dx modified | mg/kg | mg/kg | mg/kg | |
| 02214 | DRO C12-C24 w/Si Gel | n.a. | N.D. | 3.9 | 9.1 | 1 |
| 02214 | HRO C24-C40 w/Si Gel | n.a. | N.D. | 13 | 39 | 1 |
| Metals | | SW-846 6010B | mg/kg | mg/kg | mg/kg | |
| 06955 | Lead | 7439-92-1 | 1.36 J | 0.628 | 1.88 | 1 |
| Wet Chemistry | | SM 5310 B modified-2000 | mg/kg | mg/kg | mg/kg | |
| 02079 | TOC Solids/Sludges Combustion | n.a. | 1,190 | 347 | 1,040 | 1 |
| Wet Chemistry | | SM 2540 G-1997 | % | % | % | |
| 00111 | Moisture | n.a. | 23.4 | 0.50 | 0.50 | 1 |
| Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis. | | | | | | |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|----------------------|--------|--------------|------------------------|-------------------|-----------------|
| 10237 | BTEX, MTBE, EDC, EDB | SW-846 8260B | 1 | R142172AA | 08/06/2014 02:23 | Andrea E Lando | 54.78 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 1 | 201421435276 | 07/30/2014 11:00 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 2 | 201421435276 | 07/30/2014 11:00 | Client Supplied | 1 |
| 07579 | GC/MS-5g Field Preserv.MeOH-NC | SW-846 5035A | 1 | 201421435276 | 07/30/2014 11:00 | Client Supplied | 1 |
| 10725 | SIM SVOA (microwave) | SW-846 8270C SIM | 1 | 14224SLC026 | 08/14/2014 03:57 | Mark A Clark | 1 |
| 10811 | BNA Soil Microwave SIM | SW-846 3546 | 1 | 14224SLC026 | 08/13/2014 09:30 | Katheryne V Dinan | 1 |
| 02005 | NWT PH-GX Soil C7-C12 | ECY 97-602 NWT PH-Gx | 1 | 14217A34A | 08/06/2014 15:05 | Laura M Krieger | 26.95 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-12-12.5-S-073014 Soil
WA-5544 COC: R215428
19918 68th Ave S - Kent, WA

LL Sample # SW 7552815
LL Group # 1493342
Account # 13255

Project Name: WA-5544

Collected: 07/30/2014 11:00 by AB

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 08/02/2014 09:45

Reported: 02/26/2015 10:22

K1212

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|-------------------------------|---------------------------------|--------|--------------|------------------------|---------------------------|-----------------|
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 1 | 201421435276 | 07/30/2014 11:00 | Client Supplied | n.a. |
| 08272 | NWTPH-Dx soil | ECY 97-602 NWTPH-Dx modified | 1 | 142140035A | 08/06/2014 01:03 | Heather E Williams | 1 |
| 05970 | WA EPH in Soil | ECY 97-602 WA EPH | 1 | 142250006A | 08/16/2014 03:21 | Heather E Williams | 1 |
| 05970 | WA EPH in Soil | ECY 97-602 WA EPH | 1 | 142250006A | 08/16/2014 04:02 | Heather E Williams | 1 |
| 05666 | WA- VPH soils | ECY 97-602 WA VPH | 1 | 14217A08C | 08/13/2014 12:19 | Nicholas R Rossi | 72.45 |
| 02214 | NWTPH-Dx soil w/Si Gel | ECY 97-602 NWTPH-Dx modified | 1 | 142250004A | 08/14/2014 16:07 | Glorines Suarez-Rivera | 1 |
| 07024 | DRO Alternate Soil Extraction | ECY 97-602 NWTPH-Dx 06/97 | 1 | 142250004A | 08/13/2014 14:40 | Kelli M Barto | 1 |
| 11234 | WA DRO NW DX Soils (Non SG) | ECY 97-602 NWTPH-Dx 06/97 | 1 | 142140035A | 08/05/2014 10:25 | Denise L Trimby | 1 |
| 11213 | WA EPH Soils Extraction | ECY 97-602 WA EPH | 1 | 142250006A | 08/13/2014 14:30 | Kelli M Barto | 1 |
| 00388 | GC - Field Preserved (MA-VPH) | MA DEP VPH modified | 1 | 201422435336 | 07/30/2014 11:00 | Client Supplied | 1 |
| 00497 | Silica Gel Fractionation | SW-846 3630C modified | 1 | 142250006A | 08/14/2014 15:00 | Edwin Ortiz | 1 |
| 06955 | Lead | SW-846 6010B | 1 | 142255708003 | 08/15/2014 15:33 | Eric L Eby | 1 |
| 05708 | SW SW846 ICP/ICP MS Digest | SW-846 3050B | 1 | 142255708003 | 08/14/2014 07:46 | James L Mertz | 1 |
| 02079 | TOC Solids/Sludges Combustion | SM 5310 B modified-2000 | 1 | 14225049531A | 08/14/2014 00:12 | James S Mathiot | 1 |
| 00111 | Moisture | SM 2540 G-1997 | 1 | 14217820002B | 08/05/2014 19:26 | Scott W Freisher | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-12-18.5-S-073014 Soil
WA-5544 COC: R215428
19918 68th Ave S - Kent, WA

LL Sample # SW 7552816
LL Group # 1493342
Account # 13255

Project Name: WA-5544

Collected: 07/30/2014 11:10 by AB

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 08/02/2014 09:45

Reported: 02/26/2015 10:22

K1218

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit* | Dry Limit of Quantitation | Dilution Factor |
|---|-------------------------------|------------|------------|-----------------------------|---------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B | | | | | | |
| 10237 | Benzene | 71-43-2 | 0.0015 J | 0.00058 | 0.0058 | 0.86 |
| 10237 | Ethylbenzene | 100-41-4 | N.D. | 0.0012 | 0.0058 | 0.86 |
| 10237 | Methyl Tertiary Butyl Ether | 1634-04-4 | 0.032 | 0.00058 | 0.0058 | 0.86 |
| 10237 | Toluene | 108-88-3 | N.D. | 0.0012 | 0.0058 | 0.86 |
| 10237 | Xylene (Total) | 1330-20-7 | N.D. | 0.0012 | 0.0058 | 0.86 |
| GC Volatiles ECY 97-602 NWTPH-Gx | | | | | | |
| 02005 | NWTPH-GX Soil C7-C12 | n.a. | N.D. | 1.5 | 7.7 | 28.34 |
| GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified | | | | | | |
| 08272 | Diesel Range Organics C12-C24 | n.a. | N.D. | 4.1 | 9.5 | 1 |
| 08272 | Heavy Range Organics C24-C40 | n.a. | N.D. | 14 | 41 | 1 |
| Wet Chemistry SM 2540 G-1997 | | | | | | |
| 00111 | Moisture | n.a. | 26.3 | 0.50 | 0.50 | 1 |
| Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis. | | | | | | |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|------------------------------|--------|--------------|------------------------|----------------------|-----------------|
| 10237 | BTEX, MTBE, EDC, EDB | SW-846 8260B | 1 | A142171AA | 08/05/2014 20:34 | Chelsea B Stong | 0.86 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 1 | 201421435276 | 07/30/2014 11:10 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 2 | 201421435276 | 07/30/2014 11:10 | Client Supplied | 1 |
| 07579 | GC/MS-5g Field Preserv.MeOH-NC | SW-846 5035A | 1 | 201421435276 | 07/30/2014 11:10 | Client Supplied | 1 |
| 02005 | NWTPH-GX Soil C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14217A34A | 08/05/2014 23:33 | Marie D Beamenderfer | 28.34 |
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 1 | 201421435276 | 07/30/2014 11:10 | Client Supplied | n.a. |
| 08272 | NWTPH-Dx soil | ECY 97-602 NWTPH-Dx modified | 1 | 142140035A | 08/06/2014 01:25 | Heather E Williams | 1 |
| 11234 | WA DRO NW DX Soils (Non SG) | ECY 97-602 NWTPH-Dx 06/97 | 1 | 142140035A | 08/05/2014 10:25 | Denise L Trimby | 1 |
| 00111 | Moisture | SM 2540 G-1997 | 1 | 14217820002B | 08/05/2014 19:26 | Scott W Freisher | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-13-7.5-S-073014 Soil
WA-5544 COC: R215428
19918 68th Ave S - Kent, WA

LL Sample # SW 7552817
LL Group # 1493342
Account # 13255

Project Name: WA-5544

Collected: 07/30/2014 14:10 by AB

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 08/02/2014 09:45

Reported: 02/26/2015 10:22

K137-

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit* | Dry Limit of Quantitation | Dilution Factor |
|--|-------------------------------|------------|------------|-----------------------------|---------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B | | | | | | |
| 10237 | Benzene | 71-43-2 | N.D. | 0.040 | 0.40 | 57.1 |
| 10237 | 1,2-Dibromoethane | 106-93-4 | N.D. | 0.079 | 0.40 | 57.1 |
| 10237 | 1,2-Dichloroethane | 107-06-2 | N.D. | 0.079 | 0.40 | 57.1 |
| 10237 | Ethylbenzene | 100-41-4 | N.D. | 0.079 | 0.40 | 57.1 |
| 10237 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.040 | 0.40 | 57.1 |
| 10237 | Toluene | 108-88-3 | N.D. | 0.079 | 0.40 | 57.1 |
| 10237 | Xylene (Total) | 1330-20-7 | 0.29 J | 0.079 | 0.40 | 57.1 |
| Reporting limits were raised due to interference from the sample matrix. | | | | | | |
| GC/MS Semivolatiles SW-846 8270C SIM | | | | | | |
| 10725 | Benzo(a)anthracene | 56-55-3 | 0.0036 | 0.00092 | 0.0023 | 1 |
| 10725 | Benzo(a)pyrene | 50-32-8 | 0.0011 J | 0.00092 | 0.0023 | 1 |
| 10725 | Benzo(b)fluoranthene | 205-99-2 | 0.0015 J | 0.00092 | 0.0023 | 1 |
| 10725 | Benzo(k)fluoranthene | 207-08-9 | N.D. | 0.00092 | 0.0023 | 1 |
| 10725 | Chrysene | 218-01-9 | 0.0034 | 0.00046 | 0.0023 | 1 |
| 10725 | Dibenz(a,h)anthracene | 53-70-3 | N.D. | 0.00092 | 0.0023 | 1 |
| 10725 | Indeno(1,2,3-cd)pyrene | 193-39-5 | N.D. | 0.00092 | 0.0023 | 1 |
| 10725 | 1-Methylnaphthalene | 90-12-0 | 0.18 | 0.00092 | 0.0023 | 1 |
| 10725 | 2-Methylnaphthalene | 91-57-6 | 0.21 | 0.00092 | 0.0023 | 1 |
| 10725 | Naphthalene | 91-20-3 | 0.33 | 0.00092 | 0.0023 | 1 |
| GC Volatiles ECY 97-602 NWTPH-Gx | | | | | | |
| 02005 | NWTPH-GX Soil C7-C12 | n.a. | 100 | 6.4 | 32 | 114.95 |
| GC Petroleum ECY 97-602 NWTPH-Dx | | | | | | |
| Hydrocarbons modified | | | | | | |
| 08272 | Diesel Range Organics C12-C24 | n.a. | 7.7 J | 4.2 | 9.7 | 1 |
| 08272 | Heavy Range Organics C24-C40 | n.a. | N.D. | 14 | 42 | 1 |
| GC Petroleum ECY 97-602 WA EPH | | | | | | |
| Hydrocarbons | | | | | | |
| 05970 | >C10-C12 Aliphatic | n.a. | 8.2 | 1.4 | 6.9 | 1 |
| 05970 | >C10-C12 Aromatic | n.a. | 7.4 | 1.4 | 6.9 | 1 |
| 05970 | >C12-C16 Aliphatic | n.a. | 4.9 J | 1.4 | 6.9 | 1 |
| 05970 | >C12-C16 Aromatic | n.a. | 5.9 J | 1.4 | 6.9 | 1 |
| 05970 | >C16-C21 Aliphatic | n.a. | N.D. | 4.2 | 6.9 | 1 |
| 05970 | >C16-C21 Aromatic | n.a. | 6.4 J | 2.8 | 6.9 | 1 |
| 05970 | >C21-C34 Aliphatic | n.a. | N.D. | 8.3 | 14 | 1 |
| 05970 | >C21-C34 Aromatic | n.a. | N.D. | 2.8 | 6.9 | 1 |
| GC Petroleum ECY 97-602 WA VPH | | | | | | |
| Hydrocarbons | | | | | | |
| 05666 | Benzene | 71-43-2 | N.D. | 0.0806 | 0.806 | 58.06 |
| 05666 | C5-C6 Aliphatic Hydrocarbons | n.a. | N.D. | 4.03 | 8.06 | 58.06 |
| 05666 | C6-C8 Aliphatic Hydrocarbons | n.a. | N.D. | 4.03 | 8.06 | 58.06 |
| 05666 | C8-C10 Aliphatic Hydrocarbons | n.a. | 21.7 | 4.03 | 8.06 | 58.06 |
| 05666 | C8-C10 Aromatic Hydrocarbons | n.a. | 22.7 | 4.03 | 8.06 | 58.06 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-13-7.5-S-073014 Soil
WA-5544 COC: R215428
19918 68th Ave S - Kent, WA

LL Sample # SW 7552817
LL Group # 1493342
Account # 13255

Project Name: WA-5544

Collected: 07/30/2014 14:10 by AB

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 08/02/2014 09:45

Reported: 02/26/2015 10:22

K137-

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit* | Dry Limit of Quantitation | Dilution Factor |
|---|-------------------------------|--------------------------------------|--------------|-----------------------------|---------------------------|-----------------|
| GC Petroleum Hydrocarbons | | ECY 97-602 WA VPH | mg/kg | mg/kg | mg/kg | |
| 05666 | Ethylbenzene | 100-41-4 | N.D. | 0.0806 | 0.806 | 58.06 |
| 05666 | Methyl t-butyl ether | 1634-04-4 | N.D. | 0.0806 | 0.806 | 58.06 |
| 05666 | Toluene | 108-88-3 | N.D. | 0.0806 | 0.806 | 58.06 |
| 05666 | o-Xylene | 95-47-6 | 0.166 J | 0.0806 | 0.806 | 58.06 |
| 05666 | m,p-Xylenes | 179601-23-1 | 0.221 J | 0.161 | 1.61 | 58.06 |
| GC Petroleum Hydrocarbons w/Si modified | | ECY 97-602 NWT PH-Dx modified | mg/kg | mg/kg | mg/kg | |
| 02214 | DRO C12-C24 w/Si Gel | n.a. | 5.9 J | 4.2 | 9.7 | 1 |
| 02214 | HRO C24-C40 w/Si Gel | n.a. | N.D. | 14 | 42 | 1 |
| Metals | | SW-846 6010B | mg/kg | mg/kg | mg/kg | |
| 06955 | Lead | 7439-92-1 | 1.23 J | 0.661 | 1.98 | 1 |
| Wet Chemistry | | SM 5310 B modified-2000 | mg/kg | mg/kg | mg/kg | |
| 02079 | TOC Solids/Sludges Combustion | n.a. | 1,130 | 139 | 417 | 1 |
| Wet Chemistry | | SM 2540 G-1997 | % | % | % | |
| 00111 | Moisture | n.a. | 28.0 | 0.50 | 0.50 | 1 |
| Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis. | | | | | | |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|------------------|--------|--------------|------------------------|-------------------|-----------------|
| 10237 | BTEX, MTBE, EDC, EDB | SW-846 8260B | 1 | R142172AA | 08/06/2014 02:46 | Andrea E Lando | 57.1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 1 | 201421435276 | 07/30/2014 14:10 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 2 | 201421435276 | 07/30/2014 14:10 | Client Supplied | 1 |
| 07579 | GC/MS-5g Field Preserv.MeOH-NC | SW-846 5035A | 1 | 201421435276 | 07/30/2014 14:10 | Client Supplied | 1 |
| 10725 | SIM SVOA (microwave) | SW-846 8270C SIM | 1 | 14224SLC026 | 08/14/2014 04:30 | Mark A Clark | 1 |
| 10811 | BNA Soil Microwave SIM | SW-846 3546 | 1 | 14224SLC026 | 08/13/2014 09:30 | Katheryne V Dinan | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-13-7.5-S-073014 Soil
WA-5544 COC: R215428
19918 68th Ave S - Kent, WA

LL Sample # SW 7552817
LL Group # 1493342
Account # 13255

Project Name: WA-5544

Collected: 07/30/2014 14:10 by AB

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 08/02/2014 09:45

Reported: 02/26/2015 10:22

K137-

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------------|---------------------------------|--------|--------------|------------------------|---------------------------|-----------------|
| 02005 | NWTPH-GX Soil C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14217A34A | 08/06/2014 12:38 | Marie D Beamenderfer | 114.95 |
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 1 | 201421435276 | 07/30/2014 14:10 | Client Supplied | n.a. |
| 08272 | NWTPH-Dx soil | ECY 97-602 NWTPH-Dx modified | 1 | 142140035A | 08/06/2014 01:47 | Heather E Williams | 1 |
| 05970 | WA EPH in Soil | ECY 97-602 WA EPH | 1 | 142250006A | 08/16/2014 00:39 | Heather E Williams | 1 |
| 05970 | WA EPH in Soil | ECY 97-602 WA EPH | 1 | 142250006A | 08/16/2014 01:20 | Heather E Williams | 1 |
| 05666 | WA- VPH soils | ECY 97-602 WA VPH | 1 | 14217A08C | 08/13/2014 12:59 | Nicholas R Rossi | 58.06 |
| 02214 | NWTPH-Dx soil w/Si Gel | ECY 97-602 NWTPH-Dx modified | 1 | 142250004A | 08/14/2014 16:29 | Glorines Suarez-Rivera | 1 |
| 07024 | DRO Alternate Soil Extraction | ECY 97-602 NWTPH-Dx 06/97 | 1 | 142250004A | 08/13/2014 14:40 | Kelli M Barto | 1 |
| 11234 | WA DRO NW DX Soils (Non SG) | ECY 97-602 NWTPH-Dx 06/97 | 1 | 142140035A | 08/05/2014 10:25 | Denise L Trimby | 1 |
| 11213 | WA EPH Soils Extraction | ECY 97-602 WA EPH | 1 | 142250006A | 08/13/2014 14:30 | Kelli M Barto | 1 |
| 00388 | GC - Field Preserved (MA-VPH) | MA DEP VPH modified | 1 | 201422435336 | 07/30/2014 14:10 | Client Supplied | 1 |
| 00497 | Silica Gel Fractionation | SW-846 3630C modified | 1 | 142250006A | 08/14/2014 15:00 | Edwin Ortiz | 1 |
| 06955 | Lead | SW-846 6010B | 1 | 142255708003 | 08/15/2014 15:37 | Eric L Eby | 1 |
| 05708 | SW SW846 ICP/ICP MS Digest | SW-846 3050B | 1 | 142255708003 | 08/14/2014 07:46 | James L Mertz | 1 |
| 02079 | TOC Solids/Sludges Combustion | SM 5310 B modified-2000 | 1 | 14225049531A | 08/14/2014 01:09 | James S Mathiot | 1 |
| 00111 | Moisture | SM 2540 G-1997 | 1 | 14217820002B | 08/05/2014 19:26 | Scott W Freisher | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-13-18.5-S-073014 Soil
WA-5544 COC: R215428
19918 68th Ave S - Kent, WA

LL Sample # SW 7552818
LL Group # 1493342
Account # 13255

Project Name: WA-5544

Collected: 07/30/2014 14:25 by AB

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 08/02/2014 09:45

Reported: 02/26/2015 10:22

K1318

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit* | Dry Limit of Quantitation | Dilution Factor |
|---|-------------------------------|------------|------------|-----------------------------|---------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B | | | | | | |
| 10237 | Benzene | 71-43-2 | 0.0019 J | 0.00070 | 0.0070 | 0.99 |
| 10237 | Ethylbenzene | 100-41-4 | N.D. | 0.0014 | 0.0070 | 0.99 |
| 10237 | Methyl Tertiary Butyl Ether | 1634-04-4 | 0.075 | 0.00070 | 0.0070 | 0.99 |
| 10237 | Toluene | 108-88-3 | 0.0017 J | 0.0014 | 0.0070 | 0.99 |
| 10237 | Xylene (Total) | 1330-20-7 | N.D. | 0.0014 | 0.0070 | 0.99 |
| GC Volatiles ECY 97-602 NWTPH-Gx | | | | | | |
| 02005 | NWTPH-GX Soil C7-C12 | n.a. | N.D. | 1.7 | 8.3 | 29.31 |
| GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified | | | | | | |
| 08272 | Diesel Range Organics C12-C24 | n.a. | N.D. | 4.2 | 9.9 | 1 |
| 08272 | Heavy Range Organics C24-C40 | n.a. | N.D. | 14 | 42 | 1 |
| Wet Chemistry SM 2540 G-1997 | | | | | | |
| 00111 | Moisture | n.a. | 29.1 | 0.50 | 0.50 | 1 |
| Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis. | | | | | | |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|------------------------------|--------|--------------|------------------------|----------------------|-----------------|
| 10237 | BTEX, MTBE, EDC, EDB | SW-846 8260B | 1 | A142172AA | 08/06/2014 07:13 | Stephanie A Selis | 0.99 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 1 | 201421435276 | 07/30/2014 14:25 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 2 | 201421435276 | 07/30/2014 14:25 | Client Supplied | 1 |
| 07579 | GC/MS-5g Field Preserv.MeOH-NC | SW-846 5035A | 1 | 201421435276 | 07/30/2014 14:25 | Client Supplied | 1 |
| 02005 | NWTPH-GX Soil C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14217A34A | 08/06/2014 00:08 | Marie D Beamenderfer | 29.31 |
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 1 | 201421435276 | 07/30/2014 14:25 | Client Supplied | n.a. |
| 08272 | NWTPH-Dx soil | ECY 97-602 NWTPH-Dx modified | 1 | 142140035A | 08/06/2014 02:54 | Heather E Williams | 1 |
| 11234 | WA DRO NW DX Soils (Non SG) | ECY 97-602 NWTPH-Dx 06/97 | 1 | 142140035A | 08/05/2014 10:25 | Denise L Trimby | 1 |
| 00111 | Moisture | SM 2540 G-1997 | 1 | 14217820002B | 08/05/2014 19:26 | Scott W Freisher | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: AUS-SB-1-12.5-S-073014 Soil
WA-5544 COC: R215428
19918 68th Ave S - Kent, WA

LL Sample # SW 7552819
LL Group # 1493342
Account # 13255

Project Name: WA-5544

Collected: 07/30/2014 16:10 by AB

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 08/02/2014 09:45

Reported: 02/26/2015 10:22

KSB1-

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit* | Dry Limit of Quantitation | Dilution Factor |
|---|-------------------------------|------------|------------|-----------------------------|---------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B | | | | | | |
| 10237 | Benzene | 71-43-2 | 0.0014 J | 0.00056 | 0.0056 | 0.89 |
| 10237 | Ethylbenzene | 100-41-4 | N.D. | 0.0011 | 0.0056 | 0.89 |
| 10237 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.00056 | 0.0056 | 0.89 |
| 10237 | Toluene | 108-88-3 | N.D. | 0.0011 | 0.0056 | 0.89 |
| 10237 | Xylene (Total) | 1330-20-7 | N.D. | 0.0011 | 0.0056 | 0.89 |
| GC Volatiles ECY 97-602 NWTPH-Gx | | | | | | |
| 02005 | NWTPH-GX Soil C7-C12 | n.a. | N.D. | 1.4 | 7.1 | 28.09 |
| GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified | | | | | | |
| 08272 | Diesel Range Organics C12-C24 | n.a. | N.D. | 3.8 | 8.8 | 1 |
| 08272 | Heavy Range Organics C24-C40 | n.a. | N.D. | 13 | 38 | 1 |
| Wet Chemistry SM 2540 G-1997 | | | | | | |
| 00111 | Moisture | n.a. | 20.4 | 0.50 | 0.50 | 1 |
| Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis. | | | | | | |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|------------------------------|--------|--------------|------------------------|----------------------|-----------------|
| 10237 | BTEX, MTBE, EDC, EDB | SW-846 8260B | 1 | A142172AA | 08/06/2014 07:36 | Stephanie A Selis | 0.89 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 1 | 201421435276 | 07/30/2014 16:10 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 2 | 201421435276 | 07/30/2014 16:10 | Client Supplied | 1 |
| 07579 | GC/MS-5g Field Preserv.MeOH-NC | SW-846 5035A | 1 | 201421435276 | 07/30/2014 16:10 | Client Supplied | 1 |
| 02005 | NWTPH-GX Soil C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14217A34A | 08/06/2014 00:44 | Marie D Beamenderfer | 28.09 |
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 1 | 201421435276 | 07/30/2014 16:10 | Client Supplied | n.a. |
| 08272 | NWTPH-Dx soil | ECY 97-602 NWTPH-Dx modified | 1 | 142140035A | 08/06/2014 03:16 | Heather E Williams | 1 |
| 11234 | WA DRO NW DX Soils (Non SG) | ECY 97-602 NWTPH-Dx 06/97 | 1 | 142140035A | 08/05/2014 10:25 | Denise L Trimby | 1 |
| 00111 | Moisture | SM 2540 G-1997 | 1 | 14217820002B | 08/05/2014 19:26 | Scott W Freisher | 1 |

*=This limit was used in the evaluation of the final result

REVISED

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 02/26/15 at 10:22 AM

Group Number: 1493342

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

| <u>Analysis Name</u> | <u>Blank Result</u> | <u>Blank MDL**</u> | <u>Blank LOQ</u> | <u>Report Units</u> | <u>LCS %REC</u> | <u>LCSD %REC</u> | <u>LCS/LCSD Limits</u> | <u>RPD</u> | <u>RPD Max</u> |
|--|---------------------|--------------------|------------------|---------------------|-----------------|------------------|------------------------|------------|----------------|
| Batch number: A142171AA Sample number(s): 7552813-7552814,7552816 | | | | | | | | | |
| Benzene | N.D. | 0.00050 | 0.0050 | mg/kg | 91 | | 80-120 | | |
| 1,2-Dibromoethane | N.D. | 0.0010 | 0.0050 | mg/kg | 89 | | 80-120 | | |
| 1,2-Dichloroethane | N.D. | 0.0010 | 0.0050 | mg/kg | 92 | | 66-136 | | |
| Ethylbenzene | N.D. | 0.0010 | 0.0050 | mg/kg | 91 | | 80-120 | | |
| Methyl Tertiary Butyl Ether | N.D. | 0.00050 | 0.0050 | mg/kg | 80 | | 69-126 | | |
| Toluene | N.D. | 0.0010 | 0.0050 | mg/kg | 91 | | 80-120 | | |
| Xylene (Total) | N.D. | 0.0010 | 0.0050 | mg/kg | 94 | | 80-120 | | |
| Batch number: A142172AA Sample number(s): 7552818-7552819 | | | | | | | | | |
| Benzene | N.D. | 0.00050 | 0.0050 | mg/kg | 88 | 87 | 80-120 | 1 | 30 |
| Ethylbenzene | N.D. | 0.0010 | 0.0050 | mg/kg | 90 | 88 | 80-120 | 2 | 30 |
| Methyl Tertiary Butyl Ether | N.D. | 0.00050 | 0.0050 | mg/kg | 78 | 75 | 69-126 | 3 | 30 |
| Toluene | N.D. | 0.0010 | 0.0050 | mg/kg | 89 | 88 | 80-120 | 2 | 30 |
| Xylene (Total) | N.D. | 0.0010 | 0.0050 | mg/kg | 92 | 91 | 80-120 | 2 | 30 |
| Batch number: R142172AA Sample number(s): 7552815,7552817 | | | | | | | | | |
| Benzene | N.D. | 0.025 | 0.25 | mg/kg | 88 | 90 | 80-120 | 3 | 30 |
| 1,2-Dibromoethane | N.D. | 0.050 | 0.25 | mg/kg | 95 | 102 | 80-120 | 6 | 30 |
| 1,2-Dichloroethane | N.D. | 0.050 | 0.25 | mg/kg | 99 | 101 | 66-136 | 2 | 30 |
| Ethylbenzene | N.D. | 0.050 | 0.25 | mg/kg | 96 | 98 | 80-120 | 2 | 30 |
| Methyl Tertiary Butyl Ether | N.D. | 0.025 | 0.25 | mg/kg | 89 | 93 | 69-126 | 5 | 30 |
| Toluene | N.D. | 0.050 | 0.25 | mg/kg | 96 | 97 | 80-120 | 2 | 30 |
| Xylene (Total) | N.D. | 0.050 | 0.25 | mg/kg | 95 | 98 | 80-120 | 3 | 30 |
| Batch number: 14224SLC026 Sample number(s): 7552813,7552815,7552817 | | | | | | | | | |
| Benzo(a)anthracene | N.D. | 0.00067 | 0.0017 | mg/kg | 112 | | 84-126 | | |
| Benzo(a)pyrene | N.D. | 0.00067 | 0.0017 | mg/kg | 103 | | 80-117 | | |
| Benzo(b)fluoranthene | N.D. | 0.00067 | 0.0017 | mg/kg | 121 | | 87-135 | | |
| Benzo(k)fluoranthene | N.D. | 0.00067 | 0.0017 | mg/kg | 97 | | 79-123 | | |
| Chrysene | N.D. | 0.00033 | 0.0017 | mg/kg | 112 | | 82-122 | | |
| Dibenz(a,h)anthracene | N.D. | 0.00067 | 0.0017 | mg/kg | 103 | | 83-123 | | |
| Indeno(1,2,3-cd)pyrene | N.D. | 0.00067 | 0.0017 | mg/kg | 100 | | 82-123 | | |
| 1-Methylnaphthalene | N.D. | 0.00067 | 0.0017 | mg/kg | 108 | | 78-119 | | |
| 2-Methylnaphthalene | N.D. | 0.00067 | 0.0017 | mg/kg | 112 | | 78-121 | | |
| Naphthalene | N.D. | 0.00067 | 0.0017 | mg/kg | 100 | | 79-113 | | |
| Batch number: 14217A34A Sample number(s): 7552813-7552819 | | | | | | | | | |
| NWTPH-GX Soil C7-C12 | N.D. | 1.0 | 5.0 | mg/kg | 76 | 74 | 65-120 | 3 | 30 |
| Batch number: 142140035A Sample number(s): 7552813-7552819 | | | | | | | | | |
| Diesel Range Organics C12-C24 | N.D. | 3.0 | 7.0 | mg/kg | 93 | | 60-120 | | |
| Heavy Range Organics C24-C40 | N.D. | 10. | 30 | mg/kg | | | | | |

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

REVISED

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 02/26/15 at 10:22 AM

Group Number: 1493342

| <u>Analysis Name</u> | <u>Blank Result</u> | <u>Blank MDL**</u> | <u>Blank LOQ</u> | <u>Report Units</u> | <u>LCS %REC</u> | <u>LCSD %REC</u> | <u>LCS/LCSD Limits</u> | <u>RPD</u> | <u>RPD Max</u> |
|-------------------------------|---|--------------------|------------------|---------------------|-----------------|------------------|------------------------|------------|----------------|
| Batch number: 14217A08C | Sample number(s): 7552813,7552815,7552817 | | | | | | | | |
| Benzene | N.D. | 0.0500 | 0.500 | mg/kg | 97 | 98 | 70-130 | 1 | 50 |
| C5-C6 Aliphatic Hydrocarbons | N.D. | 2.50 | 5.00 | mg/kg | 95 | 98 | 70-130 | 4 | 50 |
| C6-C8 Aliphatic Hydrocarbons | N.D. | 2.50 | 5.00 | mg/kg | 95 | 99 | 70-130 | 4 | 50 |
| C8-C10 Aliphatic Hydrocarbons | N.D. | 2.50 | 5.00 | mg/kg | 98 | 101 | 70-130 | 3 | 50 |
| C8-C10 Aromatic Hydrocarbons | N.D. | 2.50 | 5.00 | mg/kg | 96 | 98 | 70-130 | 1 | 50 |
| Ethylbenzene | N.D. | 0.0500 | 0.500 | mg/kg | 95 | 96 | 70-130 | 1 | 50 |
| Methyl t-butyl ether | N.D. | 0.0500 | 0.500 | mg/kg | 98 | 95 | 70-130 | 3 | 50 |
| Toluene | N.D. | 0.0500 | 0.500 | mg/kg | 95 | 97 | 70-130 | 2 | 50 |
| o-Xylene | N.D. | 0.0500 | 0.500 | mg/kg | 95 | 96 | 70-130 | 2 | 50 |
| m,p-Xylenes | N.D. | 0.100 | 1.00 | mg/kg | 96 | 98 | 70-130 | 2 | 50 |
| Batch number: 142250006A | Sample number(s): 7552813,7552815,7552817 | | | | | | | | |
| >C10-C12 Aliphatic | N.D. | 1.0 | 5.0 | mg/kg | 95 | | 31-137 | | |
| >C10-C12 Aromatic | N.D. | 1.0 | 5.0 | mg/kg | 90 | | 22-119 | | |
| >C12-C16 Aliphatic | N.D. | 1.0 | 5.0 | mg/kg | 102 | | 42-146 | | |
| >C12-C16 Aromatic | N.D. | 1.0 | 5.0 | mg/kg | 87 | | 24-136 | | |
| >C16-C21 Aliphatic | N.D. | 3.0 | 5.0 | mg/kg | 107 | | 57-111 | | |
| >C16-C21 Aromatic | N.D. | 2.0 | 5.0 | mg/kg | 98 | | 34-143 | | |
| >C21-C34 Aliphatic | N.D. | 6.0 | 10 | mg/kg | 104 | | 50-124 | | |
| >C21-C34 Aromatic | N.D. | 2.0 | 5.0 | mg/kg | 93 | | 44-134 | | |
| Batch number: 142250004A | Sample number(s): 7552813,7552815,7552817 | | | | | | | | |
| DRO C12-C24 w/Si Gel | N.D. | 3.0 | 7.0 | mg/kg | 83 | | 50-133 | | |
| HRO C24-C40 w/Si Gel | N.D. | 10. | 30 | mg/kg | | | | | |
| Batch number: 142255708003 | Sample number(s): 7552813,7552815,7552817 | | | | | | | | |
| Lead | N.D. | 0.500 | 1.50 | mg/kg | 106 | | 80-120 | | |
| Batch number: 14225049531A | Sample number(s): 7552813,7552815,7552817 | | | | | | | | |
| TOC Solids/Sludges Combustion | N.D. | 100. | 300 | mg/kg | 110 | | 47-143 | | |
| Batch number: 14217820002B | Sample number(s): 7552813-7552819 | | | | | | | | |
| Moisture | | | | | 100 | | 99-101 | | |

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

| <u>Analysis Name</u> | <u>MS %REC</u> | <u>MSD %REC</u> | <u>MS/MSD Limits</u> | <u>RPD</u> | <u>RPD MAX</u> | <u>BKG Conc</u> | <u>DUP Conc</u> | <u>DUP RPD</u> | <u>Dup RPD Max</u> |
|-----------------------------|--|-----------------|----------------------|------------|----------------|-----------------|-----------------|----------------|--------------------|
| Batch number: A142171AA | Sample number(s): 7552813-7552814,7552816 UNSPK: P550976 | | | | | | | | |
| Benzene | 101 | 96 | 55-143 | 1 | 30 | | | | |
| 1,2-Dibromoethane | 112 | 108 | 54-129 | 3 | 30 | | | | |
| 1,2-Dichloroethane | 105 | 102 | 54-143 | 3 | 30 | | | | |
| Ethylbenzene | 97 | 98 | 44-141 | 7 | 30 | | | | |
| Methyl Tertiary Butyl Ether | 93 | 91 | 55-129 | 4 | 30 | | | | |
| Toluene | 109 | 106 | 50-146 | 3 | 30 | | | | |
| Xylene (Total) | 97 | 99 | 44-136 | 7 | 30 | | | | |
| Batch number: 14224SLC026 | Sample number(s): 7552813,7552815,7552817 UNSPK: 7552813 | | | | | | | | |
| Benzo(a)anthracene | 109 | 107 | 54-149 | 2 | 30 | | | | |

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

REVISED

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 02/26/15 at 10:22 AM

Group Number: 1493342

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

| Analysis Name | MS %REC | MSD %REC | MS/MSD Limits | RPD RPD | RPD MAX | BKG Conc | DUP Conc | DUP RPD | Dup RPD Max |
|-------------------------------|---|-------------|------------------|------------|------------|-------------|-------------|------------|----------------|
| Benzo(a)pyrene | 99 | 97 | 40-154 | 3 | 30 | | | | |
| Benzo(b)fluoranthene | 112 | 110 | 26-142 | 2 | 30 | | | | |
| Benzo(k)fluoranthene | 95 | 94 | 49-144 | 2 | 30 | | | | |
| Chrysene | 108 | 107 | 43-141 | 1 | 30 | | | | |
| Dibenz(a,h)anthracene | 93 | 86 | 24-138 | 8 | 30 | | | | |
| Indeno(1,2,3-cd)pyrene | 89 | 83 | 26-139 | 8 | 30 | | | | |
| 1-Methylnaphthalene | 95 | 112 | 69-121 | 12 | 30 | | | | |
| 2-Methylnaphthalene | 94 | 125 | 63-130 | 18 | 30 | | | | |
| Naphthalene | 96 | 99 | 44-148 | 3 | 30 | | | | |
| Batch number: 142140035A | Sample number(s): 7552813-7552819 BKG: 7552813 | | | | | | | | |
| Diesel Range Organics C12-C24 | | | | | | 450 | 270 | 49* | 20 |
| Heavy Range Organics C24-C40 | | | | | | 340 | 200 | 52* | 20 |
| Batch number: 142250006A | Sample number(s): 7552813,7552815,7552817 UNSPK: 7552813 BKG: 7552813 | | | | | | | | |
| >C10-C12 Aliphatic | 399* | | 31-137 | | | 1.7 | J 7.6 | 127* (1) | 25 |
| >C10-C12 Aromatic | 173* | | 22-119 | | | N.D. | 2.5 J | 200* (1) | 25 |
| >C12-C16 Aliphatic | 584* | | 42-146 | | | 7.2 | 36 | 134* (1) | 25 |
| >C12-C16 Aromatic | 176* | | 42-122 | | | 1.8 | J 11 | 145* (1) | 25 |
| >C16-C21 Aliphatic | 438* | | 57-111 | | | 7.5 | 47 | 145* (1) | 25 |
| >C16-C21 Aromatic | 190* | | 53-132 | | | 2.7 | J 24 | 159* (1) | 25 |
| >C21-C34 Aliphatic | 300* | | 38-120 | | | N.D. | 37 | 200* (1) | 25 |
| >C21-C34 Aromatic | 154* | | 55-126 | | | N.D. | 19 | 200* (1) | 25 |
| Batch number: 142250004A | Sample number(s): 7552813,7552815,7552817 BKG: 7552813 | | | | | | | | |
| DRO C12-C24 w/Si Gel | | | | | | 510 | 340 | 40* | 20 |
| HRO C24-C40 w/Si Gel | | | | | | 800 | 230 | 111* | 20 |
| Batch number: 142255708003 | Sample number(s): 7552813,7552815,7552817 UNSPK: P559346 BKG: P559346 | | | | | | | | |
| Lead | 103 | 97 | 75-125 | 3 | 20 | 10.0 | 8.87 | 12 | 20 |
| Batch number: 14225049531A | Sample number(s): 7552813,7552815,7552817 UNSPK: 7552817 BKG: 7552817 | | | | | | | | |
| TOC Solids/Sludges Combustion | 89 | | 22-155 | | | 815 | 729 | 11 (1) | 13 |
| Batch number: 14217820002B | Sample number(s): 7552813-7552819 BKG: 7552817 | | | | | | | | |
| Moisture | | | | | | 28.0 | 26.4 | 6* | 5 |

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX, MTBE, EDC, EDB
Batch number: A142171AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---------|----------------------|-----------------------|------------|----------------------|
| 7552813 | 109 | 104 | 89 | 96 |
| 7552814 | 107 | 104 | 94 | 89 |
| 7552816 | 108 | 107 | 94 | 89 |
| Blank | 106 | 105 | 93 | 89 |

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

REVISED

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 02/26/15 at 10:22 AM

Group Number: 1493342

Surrogate Quality Control

| | | | | |
|---------|--------|--------|--------|--------|
| LCS | 102 | 99 | 97 | 97 |
| MS | 105 | 107 | 105 | 86 |
| MSD | 103 | 103 | 104 | 86 |
| Limits: | 50-141 | 54-135 | 52-141 | 50-131 |

Analysis Name: BTEX, MTBE, EDC, EDB
Batch number: A142172AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---------|----------------------|-----------------------|------------|----------------------|
| 7552818 | 110 | 107 | 93 | 85 |
| 7552819 | 111 | 109 | 91 | 91 |
| Blank | 107 | 104 | 93 | 88 |
| LCS | 104 | 99 | 97 | 98 |
| LCSD | 102 | 100 | 97 | 97 |
| Limits: | 50-141 | 54-135 | 52-141 | 50-131 |

Analysis Name: BTEX, MTBE, EDC, EDB
Batch number: R142172AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---------|----------------------|-----------------------|------------|----------------------|
| 7552815 | 82 | 78 | 79 | 84 |
| 7552817 | 76 | 73 | 73 | 77 |
| Blank | 98 | 95 | 97 | 101 |
| LCS | 94 | 91 | 98 | 100 |
| LCSD | 96 | 92 | 97 | 101 |
| Limits: | 50-141 | 54-135 | 52-141 | 50-131 |

Analysis Name: SIM SVOA (microwave)
Batch number: 14224SLC026

| | Fluoranthene-d10 | Benzo(a)pyrene-d12 | 1-Methylnaphthalene-d10 |
|---------|------------------|--------------------|-------------------------|
| 7552813 | 105 | 107 | 96 |
| 7552815 | 103 | 107 | 96 |
| 7552817 | 107 | 107 | 101 |
| Blank | 100 | 104 | 94 |
| LCS | 107 | 112 | 103 |
| MS | 109 | 110 | 97 |
| MSD | 108 | 109 | 100 |
| Limits: | 58-128 | 55-144 | 62-121 |

Analysis Name: NWTPH-GX Soil C7-C12
Batch number: 14217A34A

| | Trifluorotoluene-F |
|---------|--------------------|
| 7552813 | 62 |
| 7552814 | 71 |
| 7552815 | 80 |
| 7552816 | 63 |
| 7552817 | 65 |
| 7552818 | 55 |
| 7552819 | 54 |
| Blank | 90 |
| LCS | 80 |
| LCSD | 79 |
| Limits: | 50-142 |

Analysis Name: NWTPH-Dx soil
Batch number: 142140035A

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

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- (2) The unspiked result was more than four times the spike added.

REVISED

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 02/26/15 at 10:22 AM

Group Number: 1493342

Surrogate Quality Control

| Orthoterphenyl | |
|----------------|-----|
| 7552813 | 129 |
| 7552814 | 112 |
| 7552815 | 110 |
| 7552816 | 112 |
| 7552817 | 108 |
| 7552818 | 105 |
| 7552819 | 109 |
| Blank | 103 |
| DUP | 123 |
| LCS | 114 |
| Limits: 50-150 | |

Analysis Name: WA- VPH soils
Batch number: 14217A08C

| | Trifluorotoluene-P | Trifluorotoluene-F |
|----------------|--------------------|--------------------|
| 7552813 | 102 | 107 |
| 7552815 | 87 | 92 |
| 7552817 | 91 | 97 |
| Blank | 90 | 94 |
| LCS | 94 | 93 |
| LCSD | 96 | 96 |
| Limits: 60-140 | | 60-140 |

Analysis Name: NWTPH-Dx soil w/Si Gel
Batch number: 142250004A

| Orthoterphenyl | |
|----------------|-----|
| 7552813 | 118 |
| 7552815 | 104 |
| 7552817 | 96 |
| Blank | 114 |
| DUP | 112 |
| LCS | 103 |
| Limits: 50-150 | |

Analysis Name: WA EPH in Soil
Batch number: 142250006A

| | Orthoterphenyl | 1-chlorooctadecane |
|----------------|----------------|--------------------|
| 7552813 | 70 | 57 |
| 7552815 | 72 | 57 |
| 7552817 | 89 | 69 |
| Blank | 55 | 33 |
| DUP | 90 | 38 |
| LCS | 85 | 72 |
| MS | 82 | 41 |
| Limits: 50-142 | | 33-122 |

*- Outside of specification

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- (2) The unspiked result was more than four times the spike added.



13255 / 1493342 / 7552813-19

Laboratory Management Program LaMP Chain of Custody Record R215428

Page ____ of ____

BP Site Node Path: _____

Req Due Date (mm/dd/yy): _____

Rush TAT: Yes ___ No ___

BP Facility No: 5544

Lab Work Order Number: _____

| | | |
|--|--|--|
| Lab Name: <u>Evratia's Lancaster Labs Env</u> | Facility Address: <u>19918 68th Ave S</u> | Consultant/Contractor: <u>ARCAOIS</u> |
| Lab Address: <u>2425 New Holland Pike, Lancaster, PA</u> | City, State, ZIP Code: <u>Kent WA</u> | Consultant/Contractor Project No: <u>6009BPNAWA 39</u> |
| Lab PM: <u>Natalie Luciano</u> | Lead Regulatory Agency: <u>Dept of Ecology</u> | Address: <u>1100 Olive Way Ste 800, Seattle, WA</u> |
| Lab Phone: <u>717 556 7258</u> | California Global ID No.: | Consultant/Contractor PM: <u>Rick Rodriguez</u> |
| Lab Shipping Acctn: | Enfos Proposal No: | Phone: <u>206 726 4721</u> Email: <u>richard.rodriguez@arcadis-us.com</u> |
| Lab Bottle Order No: <u>158957</u> | Accounting Mode: Provision ___ OOC-BU ___ OOC-RM ___ | Email EDD To: <u>john.thor.flores@arcadis-us.com</u> and to <u>lab.enfosdoc@bp.com</u> |
| Other Info: | Stage: _____ Activity: _____ | Invoice To: BP ___ Contractor <u>X</u> |

| BP Project Manager (PM): | | | | Matrix | | No. Containers / Preservative | | Requested Analyses | | | | | | | | | | Report Type & QC Level | | | | | | | | | | | | | | | | |
|--------------------------|------------------------|---------|------|--------------|----------------|-------------------------------|--------------------------|----------------------------|-------------|-------|------|-----|----------|---------|-----------------|-----------------|-------------------------|------------------------|--------------|--------------|--------|---------|-------------------|-----------------|------------------------|---|-----------------------|---|---|--|--|--|--|--|
| BP PM Phone: | | | | Soil / Solid | Water / Liquid | Air / Vapor | Is this location a well? | Total Number of Containers | Unpreserved | H2SO4 | HNO3 | HCl | Methanol | NalH5O4 | GRO by North Gx | DRO by North Gx | NO/DRO by w/ Silicon Gx | EOC/EOB by 8260 | TOC by 8310P | Lead by 6010 | EPH WA | UPH WAI | BTEX/PAHs by 8260 | C-PAHs by 8270S | Report Type & QC Level | | | | | | | | | |
| BP PM Email: | | | | | | | | | | | | | | | | | | | | | | | | | Standard <u>X</u> | | Full Data Package ___ | | | | | | | |
| Lab No. | Sample Description | Date | Time | Comments | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | MW-11-7.5-S-073014 | 7/30/14 | 810 | X | | Y | 9 | 4 | | | | | 3 | 2 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | |
| | MW-11-18.5-S-073014 | | 830 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | MW-12-12.5-S-073014 | | 1100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | MW-12-18.5-S-073014 | | 1410 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | MW-13-7.5-S-073014 | | 1410 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | MW-13-18.5-S-073014 | | 1425 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | AUS-SB-1-12.5-S-073014 | | 1610 | Y | | N | Y | Y | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | |
|---|--------------------------------|--|----------------|-------------|---------------------------|--|----------------|--------------|
| Sampler's Name: <u>Alexander Beard</u> | Relinquished By / Affiliation | | Date | Time | Accepted By / Affiliation | | Date | Time |
| Sampler's Company: <u>ARCAOIS</u> | <u>Ryan Brauchle / ARCAOIS</u> | | <u>7/31/14</u> | <u>1255</u> | <u>J. R. LEWIS</u> | | <u>7/31/14</u> | <u>13:00</u> |
| Shipment Method: _____ Ship Date: _____ | | | | | | | | |
| Shipment Tracking No: _____ | | | | | | | <u>8/2/14</u> | <u>945</u> |

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place (Yes/No) | Temp Blank: (Yes/No) | Cooler Temp on Receipt: 1.0 °F(5) | Trip Blank: Yes/(No) | MS/MSD Sample Submitted: Yes/(No)

6# 1493342

Natalie Luciano

From: Flomerfelt, Jonathan <Jonathan.Flomerfelt@arcadis-us.com>
Sent: Friday, August 01, 2014 12:04 PM
To: Natalie Luciano
Cc: Rodriguez, Richard
Subject: 5544 C.O.C. update for incoming samples
Attachments: SWA01P0714080108510.pdf

Natalie-

There should be a cooler coming in this morning for WA-5544. We need to update the chain to note that GRO/DRO&HO/BTEX are to be run on a 5 day TAT. And all else on Hold. Please let your sample receiving folks know.

Thanks!
Jonathan

From: WA01P07@arcadis-us.com [<mailto:WA01P07@arcadis-us.com>]
Sent: Friday, August 01, 2014 8:49 AM
To: Flomerfelt, Jonathan
Subject: Message from WA01P07

Click [here](#) to report this email as spam.



13255/1493342 / 7552813-19

Amended COC

Laboratory Management Program LaMP Chain of Custody Record

R215428

Page ___ of ___

BP Site Node Path: _____

Req Due Date (mm/dd/yy): _____

Rush TAT: Yes ___ No ___

BP Facility No: 5544

Lab Work Order Number: _____

| | | |
|----------------------------------|--|--|
| Lab Name: <i>Trinity / ...</i> | Facility Address: <i>19915 US ...</i> | Consultant/Contractor: <i>APCI ADTS</i> |
| Lab Address: <i>2225 New ...</i> | City, State, ZIP Code: <i>... CA</i> | Consultant/Contractor Project No: <i>...</i> |
| Lab PM: <i>...</i> | Lead Regulatory Agency: <i>...</i> | Address: <i>...</i> |
| Lab Phone: <i>714 556 7255</i> | California Global ID No.: | Consultant/Contractor PM: <i>...</i> |
| Lab Shipping Acont: | Enfos Proposal No: | Phone: <i>...</i> Email: <i>...</i> |
| Lab Bottle Order No: <i>...</i> | Accounting Mode: Provision ___ OOC-BU ___ OOC-RM ___ | Email EDD To: <i>...</i> and to <i>lab_enfosdoc@bp.com</i> |
| Other Info: | Stage: <i>...</i> Activity: <i>...</i> | Invoice To: BP ___ Contractor <i>...</i> |

| BP Project Manager (PM): | | | | Matrix | | No. Containers / Preservative | | | | | | | Requested Analyses | | | | | Report Type & QC Level | | | | | |
|--------------------------|---------------------------|----------------|------------|-------------------------------------|----------------|-------------------------------|--------------------------|----------------------------|-------------|----------|------|-----|--------------------|-----|-----|-----|-----|------------------------|-----|-----|--|--|--|
| BP PM Phone: | | | | Soil / Solid | Water / Liquid | Air / Vapor | Is this location a well? | Total Number of Containers | Unpreserved | H2SO4 | HNO3 | HCl | Methanol | ... | ... | ... | ... | ... | ... | ... | Standard <input checked="" type="checkbox"/> | Full Data Package <input type="checkbox"/> | |
| BP PM Email: | | | | | | | | | | | | | | | | | | | | | Comments | | |
| Lab No. | Sample Description | Date | Time | | | | | | | | | | | | | | | | | | Note: If sample not collected, indicate "No Sample" in comments and single-strike out and initial any preprinted sample description. | | |
| | <i>MW-11-75-S-073014</i> | <i>7/30/14</i> | <i>...</i> | <input checked="" type="checkbox"/> | | | | <i>7</i> | <i>9</i> | <i>4</i> | | | | | | | | | | | | <i>GROPRO/STEX/HO 5 day TAT</i> | |
| | <i>MW-11-95-S-073014</i> | | <i>...</i> | | | | | | | | | | | | | | | | | | | <i>Rest on Hold</i> | |
| | <i>MW-12-125-S-073014</i> | | <i>...</i> | | | | | | | | | | | | | | | | | | | | |
| | <i>MW-12-185-S-073014</i> | | <i>...</i> | | | | | | | | | | | | | | | | | | | | |
| | <i>MW-13-75-S-073014</i> | | <i>...</i> | | | | | | | | | | | | | | | | | | | | |
| | <i>MW-13-185-S-073014</i> | | <i>...</i> | | | | | | | | | | | | | | | | | | | | |
| | <i>MW-14-125-S-073014</i> | | <i>...</i> | <input checked="" type="checkbox"/> | | | | <i>N</i> | | | | | | | | | | | | | | | |

| | | | | | | |
|--|---|----------------------|-----------------------------|---|---------------------|-------------------|
| Sampler's Name: <i>Alexander Beard</i> | Relinquished By / Affiliation: <i>Ryan Brauch / ARIADIS</i> | Date: <i>7/31/14</i> | Time: <i>12:55</i> | Accepted By / Affiliation: <i>[Signature]</i> | Date: <i>8/2/14</i> | Time: <i>9:45</i> |
| Sampler's Company: <i>APCI ADTS</i> | Shipment Method: _____ | Ship Date: _____ | Shipment Tracking No: _____ | | | |

Special Instructions: _____

THIS LINE - LAB USE ONLY: Custody Seals In Place: / No | Temp Blank: / No | Cooler Temp on Receipt: *10* °F | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes No

6# 1493342

Natalie Luciano

From: Rodriguez, Richard <Richard.Rodriguez@arcadis-us.com>
Sent: Wednesday, July 30, 2014 11:01 AM
To: Natalie Luciano; Flomerfelt, Jonathan
Subject: RE: Bottle requests by 7/25

Yes, this is acceptable

Thanks for letting us know
Rick

From: Natalie Luciano [<mailto:NatalieLuciano@eurofinsUS.com>]
Sent: Wednesday, July 30, 2014 7:44 AM
To: Flomerfelt, Jonathan
Cc: Rodriguez, Richard
Subject: RE: Bottle requests by 7/25

Hello Jonathan,

We got samples from WA-5544 today. The COC had 8021 for BTEX/MTBE. We've typically done these by 8260 especially since we cannot analyze EDB/EDC by 8021. I'm having them entered for 8260, please confirm that this is acceptable.

Can we use 8260 for the other sites as well?

Thank you,
Natalie Luciano
Senior Specialist, Environmental Client Services
Phone: +1 717-556-7258

Note that my email address has changed. It is now natalieluciano@eurofinsus.com. Please update my contact information.

From: Flomerfelt, Jonathan [<mailto:Jonathan.Flomerfelt@arcadis-us.com>]
Sent: Wednesday, July 23, 2014 4:36 PM
To: Natalie Luciano; Patricia Madrigal-Kauffman
Cc: Rodriguez, Richard
Subject: Bottle requests by 7/25

Can you have the following jar request put together? We need these delivered to our Seattle office no later than Friday 7/25 for the first two, and Monday 7/28 for the second two. Given the short turnaround, we'll likely need to have these sent overnight if they're not available out of the Seattle service center.. Please reference project number on the waybill for our tracking purposes. Please send these in separate kits by Project

Site Info:

WA-5544 GP09BPNAWA39.Q0000
19918 68th Ave S, Kent WA

Analysis Plan (all soil)

16 – GRO (NWTPH-Gx) - 5 day TAT

G# 1493342

- 16 – DRO (NWTPH-DX) - 5 day TAT
- 16 – DRO (NWTPH-Dx w/ SGC)
- 16 – Total Organic Carbon - 5 day TAT
- 16 –c PAH (8270 SIM)
- 16 – (BTEX/MTBE/EDC/EDB)
- 16 – Moisture (D2216)
- 16 – EPH (WA-EPH)
- 16 – VPH (WA-VPH)
- 16 – Total Naphthalenes (8270c SIM)
- 16 - Lead

- 1 – Trip blank set (BTEX Only)
- 1 – Temp Blank
- 2 each COC and custody seals

Site Info:

WA-4484 GP09BPNAWA28.Q0000
24001 Pacific Hwy S, Kent WA

Analysis Plan (all soil)

- 15 – GRO (NWTPH-Gx) - 5 day TAT
- 15 – DRO (NWTPH-DX) - 5 day TAT
- 15 – DRO (NWTPH-Dx w/ SGC)
- 15 – Total Organic Carbon - 5 day TAT
- 15 –c PAH (8270 SIM)
- 15 – (BTEX/MTBE/EDC/EDB)
- 15 – Moisture (D2216)
- 15 – EPH (WA-EPH)
- 15 – VPH (WA-VPH)
- 15 – Total Naphthalenes (8270c SIM)
- 15 - Lead

- 1 – Trip blank set (BTEX Only)
- 1 – Temp Blank
- 2 each COC and custody seals

Site Info:

WA-4228 GP09BPNAWA19.Q0000
10402 256th Ave , Kent WA

Analysis Plan (all soil)

- 16 – GRO (NWTPH-Gx) - 5 day TAT
- 16 – DRO (NWTPH-DX) - 5 day TAT
- 16 – DRO (NWTPH-Dx w/ SGC)
- 16 – Total Organic Carbon - 5 day TAT
- 16 –c PAH (8270 SIM)
- 16 – (BTEX/MTBE/EDC/EDB)
- 16 – Moisture (D2216)
- 16 – EPH (WA-EPH)
- 16 – VPH (WA-VPH)
- 16 – Total Naphthalenes (8270c SIM)

IS# 1492342

16 - Lead

- 1 – Trip blank set (BTEX Only)
- 1 – Temp Blank
- 2 each COC and custody seals

Site Info:

WA-5373 GP09BPNWA35.Q0000
2125 College Way, Mt Vernon, WA

Analysis Plan (all soil)

- 6 – GRO (NWTPH-Gx) - 5 day TAT
- 6 – DRO (NWTPH-DX) - 5 day TAT
- 6 – DRO (NWTPH-Dx w/ SGC)
- 6 – Total Organic Carbon - 5 day TAT
- 6 – c PAH (8270 SIM)
- 6 – (BTEX/MTBE/EDC/EDB)
- 6 – Moisture (D2216)
- 6 – EPH (WA-EPH)
- 6 – VPH (WA-VPH)
- 6 – Total Naphthalenes (8270c SIM)
- 6 - Lead

- 1 – Trip blank set (BTEX Only)
- 1 – Temp Blank
- 2 each COC and custody seals

Jonathan Flomerfelt | Staff Geologist | jonathan.flomerfelt@arcadis-us.com

ARCADIS U.S., Inc. | 1100 Olive Way, Suite 800 | Seattle, WA, 98101

T. 206.726.4712 | F. 206.325.8218

www.arcadis-us.com

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13255 / 1493342 / 7552813-19
Laboratory Management Program LaMP Chain of Custody Record R215428

Page ____ of ____

BP Site Node Path: _____

Req Due Date (mm/dd/yy): _____

Rush TAT: Yes ___ No ___

BP Facility No: 5544

Lab Work Order Number: _____

| | | |
|---|--|--|
| Lab Name: <u>Eurolas Lancaster Labs Env</u> | Facility Address: <u>19918 68th Ave S</u> | Consultant/Contractor: <u>ARCADIS</u> |
| Lab Address: <u>2425 New Holland Pike Lancaster, PA</u> | City, State, ZIP Code: <u>Kent WA</u> | Consultant/Contractor Project No: <u>G009BPNAWA39</u> |
| Lab PM: <u>Natalie Luciano</u> | Lead Regulatory Agency: <u>Dept of Ecology</u> | Address: <u>1100 Olive Way Ste 800, Seattle, WA</u> |
| Lab Phone: <u>717 556 7258</u> | California Global ID No.: | Consultant/Contractor PM: <u>Rick Rodriguez</u> |
| Lab Shipping Acont: | Enfos Proposal No: | Phone: <u>206 726 4721</u> Email: <u>rick.rodriguez@arcadis.com</u> |
| Lab Bottle Order No: <u>158957</u> | Accounting Mode: Provision ___ OOC-BU ___ OOC-RM ___ | Email EDD To: <u>john.thor.flower@arcadis-us.com</u> and to <u>lab.enfosdoc@bp.com</u> |
| Other Info: | Stage: Activity: | Invoice To: BP ___ Contractor <u>X</u> |

| Lab No. | Sample Description | Date | Time | Matrix | | | No. Containers / Preservative | | Requested Analyses | | | | | | | | | | | | Report Type & QC Level | | | | | | | |
|---------|------------------------|---------|------|--------------|----------------|-------------|-------------------------------|----------------------------|--------------------|-------|------|-----|----------|--------|-----------------|-----------------|-------------------|-----------------|----------------------|--------------|------------------------|------------|-------------------|----------------|-------|--|-----------------------|--------------------------|
| | | | | Soil / Solid | Water / Liquid | Air / Vapor | Is this location a well? | Total Number of Containers | Unpreserved | H2SO4 | HNO3 | HCl | Methanol | NaHSO4 | GRO by NUTRI GX | DRB by NUTRI GX | NO/DB by NUTRI GX | EOC/EDB by 8200 | Total Organic Carbon | Lead by 6010 | EPH WAEPM | UPLA WAPPH | BTEX/AHBE by 8200 | CHLOR by 8270S | Other | Standard <input checked="" type="checkbox"/> | Full Data Package ___ | |
| | MW-11-7.5-S-073014 | 7/30/14 | 810 | X | | | Y | 9 | 4 | | | | | | | | | | | | | | | | | | | Standard TAT 8/12/14 RSR |
| | MW-11-18.5-S-073014 | | 830 | | | | | | | | | | | | | | | | | | | | | | | | | ← Hold All |
| | MW-12-12.5-S-073014 | | 1100 | | | | | | | | | | | | | | | | | | | | | | | | | Standard TAT 8/12/14 RSR |
| | MW-12-18.5-S-073014 | | 1410 | | | | | | | | | | | | | | | | | | | | | | | | | ← Hold All |
| | MW-13-7.5-S-073014 | | 1410 | | | | | | | | | | | | | | | | | | | | | | | | | Standard TAT 8/12/14 RSR |
| | MW-13-18.5-S-073014 | | 1425 | | | | | | | | | | | | | | | | | | | | | | | | | ← Hold All |
| | ALS-SB-1-12.5-S-073014 | | 1610 | | | | N | | | | | | | | | | | | | | | | | | | | | ← Hold All |

| | | | | | | |
|---|-------------------------------|----------------|-------------|---------------------------|----------------|--------------|
| Sampler's Name: <u>Alexander Baird</u> | Relinquished By / Affiliation | Date | Time | Accepted By / Affiliation | Date | Time |
| Sampler's Company: <u>ARCADIS</u> | <u>Ryan Brauche / ARCADIS</u> | <u>7/31/14</u> | <u>1255</u> | <u>[Signature]</u> | <u>7/31/14</u> | <u>13:00</u> |
| Shipment Method: | Ship Date: | | | | | |
| Shipment Tracking No: | | | | | <u>8/2/14</u> | <u>945</u> |
| Special Instructions: | | | | | | |
| THIS LINE - LAB USE ONLY: Custody Seals In Place <input checked="" type="checkbox"/> Yes / No Temp Blank: <input checked="" type="checkbox"/> Yes / No Cooler Temp on Receipt: <u>1.0</u> °F/5 Trip Blank: Yes <input checked="" type="checkbox"/> No MS/MSD Sample Submitted: Yes <input checked="" type="checkbox"/> No | | | | | | |

Client: Arcadis

Delivery and Receipt Information

Delivery Method: SeaTac Arrival Timestamp: 08/02/2014 9:45
 Number of Packages: 1 Number of Projects: 1
 State/Province of Origin: WA

Arrival Condition Summary

| | | | |
|--------------------------------------|------------|---------------------------------------|------------|
| Shipping Container Sealed: | <u>Yes</u> | Total Trip Blank Qty: | <u>0</u> |
| Custody Seal Present: | <u>Yes</u> | Trip Blank Type: | <u>N/A</u> |
| Custody Seal Intact: | <u>Yes</u> | Air Quality Samples Present: | <u>No</u> |
| Samples Chilled: | <u>Yes</u> | Air Quality Flow Controllers Present: | <u>N/A</u> |
| Paperwork Enclosed: | <u>Yes</u> | Flow Controller Quantity: | <u>0</u> |
| Samples Intact: | <u>Yes</u> | Air Quality Returns: | <u>N/A</u> |
| Missing Samples: | <u>No</u> | | |
| Extra Samples: | <u>No</u> | | |
| Discrepancy in Container Qty on COC: | <u>No</u> | | |
| Sample IDs on COC match Containers: | <u>No</u> | | |
| Sample Date/Times match COC: | <u>Yes</u> | | |
| VOA Vial Headspace \geq 6mm: | <u>N/A</u> | | |
| VOA IDs (\geq 6mm): | <u>N/A</u> | | |

Unpacked by Wesley Miller (2308) at 10:41 on 08/02/2014

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* All Temperatures in °C.

| <u>Cooler #</u> | <u>Thermometer ID</u> | <u>Corrected Temp</u> | <u>Therm. Type</u> | <u>Ice Type</u> | <u>Ice Present?</u> | <u>Ice Container</u> | <u>Samples Collected Same Day as Receipt?</u> | <u>Elevated Temp?</u> |
|-----------------|-----------------------|-----------------------|--------------------|-----------------|---------------------|----------------------|---|-----------------------|
| 1 | DT121 | 1.0 | DT | Wet | Y | Bagged | N | N |

Sample ID Discrepancy Details

| <u>Sample ID on COC</u> | <u>Sample ID on Label</u> | <u>Comments</u> |
|-------------------------|---------------------------|--|
| MW-12-18.5-S-073014 | MW-12-12.5-S-073014 | 1 vial labeled MW-12-12.5 with collection info of MW-12-18.5 |

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

| | | | |
|-------------------------|--|-----------------|----------------------------------|
| RL | Reporting Limit | BMQL | Below Minimum Quantitation Level |
| N.D. | none detected | MPN | Most Probable Number |
| TNTC | Too Numerous To Count | CP Units | cobalt-chloroplatinate units |
| IU | International Units | NTU | nephelometric turbidity units |
| umhos/cm | micromhos/cm | ng | nanogram(s) |
| C | degrees Celsius | F | degrees Fahrenheit |
| meq | milliequivalents | lb. | pound(s) |
| g | gram(s) | kg | kilogram(s) |
| µg | microgram(s) | mg | milligram(s) |
| mL | milliliter(s) | L | liter(s) |
| m³ | cubic meter(s) | µL | microliter(s) |
| | | pg/L | picogram/liter |
| < | less than | | |
| > | greater than | | |
| ppm | parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas. | | |
| ppb | parts per billion | | |
| Dry weight basis | Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis. | | |

Laboratory Data Qualifiers:

- B - Analyte detected in the blank
- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and the $<$ Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, ISO17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

August 21, 2014

Project: WA-5544

Submittal Date: 08/13/2014
Group Number: 1495750
PO Number: GP09BPNA.WA39
State of Sample Origin: WA

| <u>Client Sample Description</u> | <u>Lancaster Labs (LL) #</u> |
|--------------------------------------|------------------------------|
| MW-2-08052014 Grab Water | 7563939 |
| MW-2-08052014 Filtered Grab Water | 7563940 |
| MW-5-08052014 Grab Water | 7563941 |
| MW-5-08052014 Filtered Grab Water | 7563942 |
| MW-6-08052014 Grab Water | 7563943 |
| MW-6-08052014 Filtered Grab Water | 7563944 |
| MW-11-08072014 Grab Water | 7563945 |
| MW-11-08072014 Filtered Grab Water | 7563946 |
| MW-12-08072014 Grab Water | 7563947 |
| MW-12-08072014 Filtered Grab Water | 7563948 |
| MW-13-08072014 Grab Water | 7563949 |
| MW-13-08072014 Filtered Grab Water | 7563950 |
| BD-5544-08052014 Grab Water | 7563951 |
| BD-5544-08052014 Filtered Grab Water | 7563952 |

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

| | | |
|--------------------|--------------------------------|-------------------------|
| ELECTRONIC COPY TO | ARCADIS U.S., Inc. | Attn: Sam Miles |
| ELECTRONIC COPY TO | ARCADIS U.S., Inc. | Attn: Richard Rodriguez |
| ELECTRONIC COPY TO | Atlantic Richfield c/o ARCADIS | Attn: Rory Henneck |
| ELECTRONIC COPY TO | ARCADIS U.S., Inc. | Attn: Kyle Haslam |

Respectfully Submitted,



Natalie R. Luciano
Senior Specialist

(717) 556-7258

Project Name: WA-5544
LL Group #: 1495750

General Comments:

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client. The compliance signature is located on the cover page of the Analysis Reports.

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:**SW-846 8260B, GC/MS Volatiles**

Sample #s: 7563943

Reporting limits were raised due to sample foaming.

SW-846 6020, Metals

Batch #: 142266050003A (Sample number(s): 7563939-7563948, 7563950, 7563952 UNSPK: P563957 BKG: P563957)

The duplicate RPD for the following analyte(s) exceeded the acceptance window:
Lead

SW-846 6020, Metals Dissolved

Batch #: 142266050003A (Sample number(s): 7563939-7563948, 7563950, 7563952 UNSPK: P563957 BKG: P563957)

The duplicate RPD for the following analyte(s) exceeded the acceptance window:
Lead

Sample Description: MW-2-08052014 Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563939
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/05/2014 09:20 by CP

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

68K02

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|------------------------|-----------------------------|----------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | | SW-846 8260B | ug/l | ug/l | ug/l | |
| 10335 | Benzene | 71-43-2 | 5.7 | 2.5 | 5.0 | 5 |
| 10335 | Ethylbenzene | 100-41-4 | 920 | 2.5 | 5.0 | 5 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 2.5 | 5.0 | 5 |
| 10335 | Toluene | 108-88-3 | 3.9 J | 2.5 | 5.0 | 5 |
| 10335 | Xylene (Total) | 1330-20-7 | 2,700 | 2.5 | 5.0 | 5 |
| GC Volatiles | | | | | | |
| | | ECY 97-602 NWTPH-Gx | ug/l | ug/l | ug/l | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 21,000 | 250 | 1,300 | 5 |
| Metals | | | | | | |
| | | SW-846 6020 | ug/l | ug/l | ug/l | |
| 06035 | Lead | 7439-92-1 | 0.37 J | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | L142252AA | 08/14/2014 01:49 | Andrea E Lando | 5 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | L142252AA | 08/14/2014 01:49 | Andrea E Lando | 5 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14230C20A | 08/19/2014 19:39 | Marie D Beamenderfer | 5 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14230C20A | 08/19/2014 19:39 | Marie D Beamenderfer | 5 |
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:47 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-2-08052014 Filtered Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563940
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/05/2014 09:20 by CP

Atlantic Richfield c/o ARCADIS

Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 06035 | Lead | 7439-92-1 | N.D. | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:15 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-5-08052014 Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563941
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/05/2014 10:12 by CP

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

68K05

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|------------------------|-----------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | SW-846 8260B | | ug/l | ug/l | ug/l | |
| 10335 | Benzene | 71-43-2 | 1.3 | 0.50 | 1.0 | 1 |
| 10335 | Ethylbenzene | 100-41-4 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | 1.5 | 0.50 | 1.0 | 1 |
| 10335 | Toluene | 108-88-3 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Xylene (Total) | 1330-20-7 | 1.8 | 0.50 | 1.0 | 1 |
| GC Volatiles | | | | | | |
| | ECY 97-602 NWTPH-Gx | | ug/l | ug/l | ug/l | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 330 | 50 | 250 | 1 |
| Metals | | | | | | |
| | SW-846 6020 | | ug/l | ug/l | ug/l | |
| 06035 | Lead | 7439-92-1 | 0.086 J | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | L142252AA | 08/14/2014 02:11 | Andrea E Lando | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | L142252AA | 08/14/2014 02:11 | Andrea E Lando | 1 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14226A94A | 08/15/2014 16:15 | Marie D Beamenderfer | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14226A94A | 08/15/2014 16:15 | Marie D Beamenderfer | 1 |
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:49 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-5-08052014 Filtered Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563942
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/05/2014 10:12 by CP

Atlantic Richfield c/o ARCADIS

Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 06035 | Lead | 7439-92-1 | 0.10 J | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:17 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-6-08052014 Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563943
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/05/2014 11:00 by CP

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

68K06

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---|-----------------------------|----------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | | SW-846 8260B | ug/l | ug/l | ug/l | |
| 10335 | Benzene | 71-43-2 | 3.6 J | 2.5 | 5.0 | 5 |
| 10335 | Ethylbenzene | 100-41-4 | 120 | 2.5 | 5.0 | 5 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 2.5 | 5.0 | 5 |
| 10335 | Toluene | 108-88-3 | N.D. | 2.5 | 5.0 | 5 |
| 10335 | Xylene (Total) | 1330-20-7 | 230 | 2.5 | 5.0 | 5 |
| Reporting limits were raised due to sample foaming. | | | | | | |
| GC Volatiles | | | | | | |
| | | ECY 97-602 NWTPH-Gx | ug/l | ug/l | ug/l | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 7,500 | 250 | 1,300 | 5 |
| Metals | | | | | | |
| | | SW-846 6020 | ug/l | ug/l | ug/l | |
| 06035 | Lead | 7439-92-1 | 0.15 J | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | L142252AA | 08/14/2014 02:33 | Andrea E Lando | 5 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | L142252AA | 08/14/2014 02:33 | Andrea E Lando | 5 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14230C20A | 08/19/2014 20:06 | Marie D Beamenderfer | 5 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14230C20A | 08/19/2014 20:06 | Marie D Beamenderfer | 5 |
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:50 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-6-08052014 Filtered Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563944
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/05/2014 11:00 by CP

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 06035 | Lead | 7439-92-1 | N.D. | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:22 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-11-08072014 Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563945
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/07/2014 10:40 by CP

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

68K11

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|------------------------|-----------------------------|----------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | | SW-846 8260B | ug/l | ug/l | ug/l | |
| 10335 | Benzene | 71-43-2 | 0.75 J | 0.50 | 1.0 | 1 |
| 10335 | Ethylbenzene | 100-41-4 | 0.68 J | 0.50 | 1.0 | 1 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Toluene | 108-88-3 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Xylene (Total) | 1330-20-7 | 1.4 | 0.50 | 1.0 | 1 |
| GC Volatiles | | | | | | |
| | | ECY 97-602 NWTPH-Gx | ug/l | ug/l | ug/l | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | N.D. | 50 | 250 | 1 |
| Metals | | | | | | |
| | | SW-846 6020 | ug/l | ug/l | ug/l | |
| 06035 | Lead | 7439-92-1 | 38.6 | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | L142252AA | 08/14/2014 02:55 | Andrea E Lando | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | L142252AA | 08/14/2014 02:55 | Andrea E Lando | 1 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14226A94A | 08/15/2014 12:51 | Marie D Beamenderfer | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14226A94A | 08/15/2014 12:51 | Marie D Beamenderfer | 1 |
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:52 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-11-08072014 Filtered Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563946
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/07/2014 10:40 by CP

Atlantic Richfield c/o ARCADIS

Submitted: 08/13/2014 09:40

Suite 600

Reported: 08/21/2014 18:29

630 Plaza Drive

Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 06035 | Lead | 7439-92-1 | 2.7 | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:24 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-12-08072014 Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563947
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/07/2014 09:10 by CP

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

68K12

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|------------------------|-----------------------------|----------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | | SW-846 8260B | ug/l | ug/l | ug/l | |
| 10335 | Benzene | 71-43-2 | 700 | 5.0 | 10 | 10 |
| 10335 | Ethylbenzene | 100-41-4 | 280 | 5.0 | 10 | 10 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | 88 | 0.50 | 1.0 | 1 |
| 10335 | Toluene | 108-88-3 | 2.1 | 0.50 | 1.0 | 1 |
| 10335 | Xylene (Total) | 1330-20-7 | 580 | 5.0 | 10 | 10 |
| GC Volatiles | | | | | | |
| | | ECY 97-602 NWTPH-Gx | ug/l | ug/l | ug/l | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 3,100 | 250 | 1,300 | 5 |
| Metals | | | | | | |
| | | SW-846 6020 | ug/l | ug/l | ug/l | |
| 06035 | Lead | 7439-92-1 | 4.7 | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|----------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | L142252AA | 08/14/2014 04:23 | Andrea E Lando | 1 |
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | N142262AA | 08/15/2014 05:14 | Amanda K Richards | 10 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | L142252AA | 08/14/2014 04:23 | Andrea E Lando | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 2 | N142262AA | 08/15/2014 05:14 | Amanda K Richards | 10 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14226A94A | 08/15/2014 17:31 | Marie D Beamenderfer | 5 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14226A94A | 08/15/2014 17:31 | Marie D Beamenderfer | 5 |
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:54 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-12-08072014 Filtered Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563948
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/07/2014 09:10 by CP

Atlantic Richfield c/o ARCADIS

Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 06035 | Lead | 7439-92-1 | 0.15 J | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:25 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-13-08072014 Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563949
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/07/2014 07:49 by CP

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

68K13

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|------------------------|-----------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | SW-846 8260B | | ug/l | ug/l | ug/l | |
| 10335 | Benzene | 71-43-2 | 2.0 | 0.50 | 1.0 | 1 |
| 10335 | Ethylbenzene | 100-41-4 | 12 | 0.50 | 1.0 | 1 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | 90 | 0.50 | 1.0 | 1 |
| 10335 | Toluene | 108-88-3 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Xylene (Total) | 1330-20-7 | 94 | 0.50 | 1.0 | 1 |
| GC Volatiles | | | | | | |
| | ECY 97-602 NWTPH-Gx | | ug/l | ug/l | ug/l | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 1,000 | 50 | 250 | 1 |
| Metals | | | | | | |
| | SW-846 6020 | | ug/l | ug/l | ug/l | |
| 06035 | Lead | 7439-92-1 | 6.1 | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|----------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | L142252AA | 08/14/2014 04:45 | Andrea E Lando | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | L142252AA | 08/14/2014 04:45 | Andrea E Lando | 1 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14226A94A | 08/15/2014 14:58 | Marie D Beamenderfer | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14226A94A | 08/15/2014 14:58 | Marie D Beamenderfer | 1 |
| 06035 | Lead | SW-846 6020 | 1 | 142266050004A | 08/19/2014 10:00 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050004 | 08/17/2014 10:28 | James L Mertz | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-13-08072014 Filtered Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563950
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/07/2014 07:49 by CP

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 06035 | Lead | 7439-92-1 | 0.30 J | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:27 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: **BD-5544-08052014 Grab Water**
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # **WW 7563951**
 LL Group # **1495750**
 Account # **13255**

Project Name: **WA-5544**

Collected: 08/05/2014 by CP

Atlantic Richfield c/o ARCADIS
 Suite 600
 630 Plaza Drive
 Highlands Ranch CO 80129

Submitted: 08/13/2014 09:40

Reported: 08/21/2014 18:29

68KFD

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|------------------------|-----------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | SW-846 8260B | | ug/l | ug/l | ug/l | |
| 10335 | Benzene | 71-43-2 | 6.2 | 1.0 | 2.0 | 2 |
| 10335 | Ethylbenzene | 100-41-4 | 920 | 10 | 20 | 20 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 1.0 | 2.0 | 2 |
| 10335 | Toluene | 108-88-3 | 4.0 | 1.0 | 2.0 | 2 |
| 10335 | Xylene (Total) | 1330-20-7 | 2,600 | 10 | 20 | 20 |
| GC Volatiles | | | | | | |
| | ECY 97-602 NWTPH-Gx | | ug/l | ug/l | ug/l | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 17,000 | 250 | 1,300 | 5 |
| Metals | | | | | | |
| | SW-846 6020 | | ug/l | ug/l | ug/l | |
| 06035 | Lead | 7439-92-1 | 0.49 J | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|----------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | L142252AA | 08/14/2014 05:07 | Andrea E Lando | 2 |
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | L142252AA | 08/14/2014 05:29 | Andrea E Lando | 20 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | L142252AA | 08/14/2014 05:07 | Andrea E Lando | 2 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 2 | L142252AA | 08/14/2014 05:29 | Andrea E Lando | 20 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14226A94A | 08/15/2014 18:47 | Marie D Beamenderfer | 5 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14226A94A | 08/15/2014 18:47 | Marie D Beamenderfer | 5 |
| 06035 | Lead | SW-846 6020 | 1 | 142266050004A | 08/19/2014 10:20 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050004 | 08/17/2014 10:28 | James L Mertz | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: BD-5544-08052014 Filtered Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563952
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/05/2014 by CP

Atlantic Richfield c/o ARCADIS

Submitted: 08/13/2014 09:40

Suite 600

Reported: 08/21/2014 18:29

630 Plaza Drive

Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 06035 | Lead | SW-846 6020 7439-92-1 | ug/l N.D. | ug/l 0.082 | ug/l 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:29 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 08/21/14 at 06:29 PM

Group Number: 1495750

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

| <u>Analysis Name</u> | <u>Blank Result</u> | <u>Blank MDL**</u> | <u>Blank LOQ</u> | <u>Report Units</u> | <u>LCS %REC</u> | <u>LCSD %REC</u> | <u>LCS/LCSD Limits</u> | <u>RPD</u> | <u>RPD Max</u> |
|-----------------------------|---|--------------------|------------------|---------------------|-----------------|------------------|------------------------|------------|----------------|
| Batch number: L142252AA | Sample number(s): 7563939, 7563941, 7563943, 7563945, 7563947, 7563949, 7563951 | | | | | | | | |
| Benzene | N.D. | 0.50 | 1.0 | ug/l | 105 | 103 | 78-120 | 1 | 30 |
| Ethylbenzene | N.D. | 0.50 | 1.0 | ug/l | 97 | 94 | 79-120 | 3 | 30 |
| Methyl Tertiary Butyl Ether | N.D. | 0.50 | 1.0 | ug/l | 105 | 105 | 75-120 | 0 | 30 |
| Toluene | N.D. | 0.50 | 1.0 | ug/l | 97 | 96 | 80-120 | 1 | 30 |
| Xylene (Total) | N.D. | 0.50 | 1.0 | ug/l | 97 | 95 | 80-120 | 3 | 30 |
| Batch number: N142262AA | Sample number(s): 7563947 | | | | | | | | |
| Benzene | N.D. | 0.50 | 1.0 | ug/l | 102 | 101 | 78-120 | 1 | 30 |
| Ethylbenzene | N.D. | 0.50 | 1.0 | ug/l | 99 | 102 | 79-120 | 3 | 30 |
| Xylene (Total) | N.D. | 0.50 | 1.0 | ug/l | 101 | 105 | 80-120 | 3 | 30 |
| Batch number: 14226A94A | Sample number(s): 7563941, 7563945, 7563947, 7563949, 7563951 | | | | | | | | |
| NWTPH-Gx water C7-C12 | N.D. | 50. | 250 | ug/l | 97 | | 75-135 | | |
| Batch number: 14230C20A | Sample number(s): 7563939, 7563943 | | | | | | | | |
| NWTPH-Gx water C7-C12 | N.D. | 50. | 250 | ug/l | 104 | | 75-135 | | |
| Batch number: 142266050003A | Sample number(s): 7563939-7563948, 7563950, 7563952 | | | | | | | | |
| Lead | N.D. | 0.082 | 1.0 | ug/l | 98 | | 90-110 | | |
| Batch number: 142266050004A | Sample number(s): 7563949, 7563951 | | | | | | | | |
| Lead | N.D. | 0.082 | 1.0 | ug/l | 103 | | 90-110 | | |

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

| <u>Analysis Name</u> | <u>MS %REC</u> | <u>MSD %REC</u> | <u>MS/MSD Limits</u> | <u>RPD</u> | <u>RPD MAX</u> | <u>BKG Conc</u> | <u>DUP Conc</u> | <u>DUP RPD</u> | <u>Dup RPD Max</u> |
|-----------------------------|---|-----------------|----------------------|------------|----------------|-----------------|-----------------|----------------|--------------------|
| Batch number: 14226A94A | Sample number(s): 7563941, 7563945, 7563947, 7563949, 7563951 UNSPK: 7563947 | | | | | | | | |
| NWTPH-Gx water C7-C12 | 100 | 95 | 75-135 | 3 | 30 | | | | |
| Batch number: 14230C20A | Sample number(s): 7563939, 7563943 UNSPK: P566637 | | | | | | | | |
| NWTPH-Gx water C7-C12 | 119 | 119 | 75-135 | 0 | 30 | | | | |
| Batch number: 142266050003A | Sample number(s): 7563939-7563948, 7563950, 7563952 UNSPK: P563957 BKG: P563957 | | | | | | | | |
| Lead | 95 | 97 | 89-120 | 1 | 20 | 0.088 J | N.D. | 200* (1) | 20 |
| Batch number: 142266050004A | Sample number(s): 7563949, 7563951 UNSPK: 7563949 BKG: 7563949 | | | | | | | | |

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 08/21/14 at 06:29 PM

Group Number: 1495750

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

| <u>Analysis Name</u> | <u>MS</u> <u>%REC</u> | <u>MSD</u> <u>%REC</u> | <u>MS/MSD</u> <u>Limits</u> | <u>RPD</u> <u>RPD</u> | <u>RPD</u> <u>MAX</u> | <u>BKG</u> <u>Conc</u> | <u>DUP</u> <u>Conc</u> | <u>DUP</u> <u>RPD</u> | <u>Dup</u> <u>RPD</u> <u>Max</u> |
|----------------------|--------------------------|---------------------------|--------------------------------|--------------------------|--------------------------|---------------------------|---------------------------|--------------------------|-------------------------------------|
| Lead | 98 | 97 | 89-120 | 1 | 20 | 6.1 | 5.8 | 5 | 20 |

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PPL + Xylene (total) by 8260

Batch number: L142252AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---------|----------------------|-----------------------|------------|----------------------|
| 7563939 | 103 | 101 | 93 | 102 |
| 7563941 | 102 | 98 | 94 | 101 |
| 7563943 | 102 | 99 | 93 | 102 |
| 7563945 | 103 | 102 | 94 | 101 |
| 7563947 | 99 | 98 | 95 | 101 |
| 7563949 | 104 | 100 | 94 | 101 |
| 7563951 | 102 | 99 | 94 | 102 |
| Blank | 104 | 102 | 94 | 100 |
| LCS | 103 | 100 | 97 | 103 |
| LCSD | 103 | 99 | 95 | 101 |

Limits: 80-116 77-113 80-113 78-113

Analysis Name: NWTPH-Gx water C7-C12

Batch number: 14226A94A

| | Trifluorotoluene-F |
|---------|--------------------|
| 7563941 | 89 |
| 7563945 | 82 |
| 7563947 | 95 |
| 7563949 | 84 |
| 7563951 | 85 |
| Blank | 81 |
| LCS | 91 |
| MS | 95 |
| MSD | 89 |

Limits: 63-135

Analysis Name: NWTPH-Gx water C7-C12

Batch number: 14230C20A

| | Trifluorotoluene-F |
|---------|--------------------|
| 7563939 | 92 |
| 7563943 | 93 |
| Blank | 91 |
| LCS | 94 |
| MS | 111 |

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control SummaryClient Name: Atlantic Richfield c/o ARCADIS
Reported: 08/21/14 at 06:29 PM

Group Number: 1495750

Surrogate Quality Control

MSD 111

Limits: 63-135

*- Outside of specification

**-This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

acct# 13255 Cp# 1495750 sample# 7563939-53

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

| | | | | | |
|--|--|---|--|--|--|
| Section A Required Client Information: | | Section B Required Project Information: | | Section C Invoice Information: | |
| Company: ARCADIS | | Report To: Samuel Miles | | Attention: Richard Rodriguez | |
| Address: 1100 Olive Way Suite 800 Seattle, WA 98101 | | Copy To: Richard Rodriguez | | Company Name: ARCADIS | |
| Email To: Samuel.Miles@arcadis-us.com | | Purchase Order No. | | Address: 1100 Olive Way Suite 800, Seattle, WA | |
| Phone: 206-726-4720 Fax: 206-325-8218 | | Client Project ID: ARCO 5544 | | Lancaster Project Manager: Natalie Luciano | |
| Requested Due Date/TAT: 10 Day (Default) | | Project Number: GP09BPNA.WA39 | | Lancaster Profile # | |

| | |
|-------------------|--|
| Regulatory Agency | |
| State / Location | |
| WA | |

| ITEM# | SAMPLE ID One Character per box. (A-Z, 0-9/, -) Sample Ids must be unique | MATRIX Drinking Water Water Waste Water Product Soil/Solid Oil Wipe Air Other | CODE DW WT WW P SL OL WP AR OT TS | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED | | | | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives | | | | | | | | Analyses Test Y/N | Requested Analysis Filtered (Y/N) | | | | Residual Chlorine (Y/N) | | | | | |
|-------|--|--|---|---------------------------------------|-----------------------------|-----------|------|--------|------|---------------------------|-----------------|---------------|-------|------|-----|------|---------|----------|-------|-------------------|-----------------------------------|--------------|--------------|-------------------|-------------------------|-----------------------|--|--|---------|--|
| | | | | | | START | | END | | | | Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | | GRO (NWTPH-Gx) | BTEX (8260B) | MTBE (8260B) | Total Lead (6020) | | Dissolved Lead (6020) | | | | |
| | | | | | | DATE | TIME | DATE | TIME | | | | | | | | | | | | | | | | | | | | | |
| 1 | MW-2-08052014 | WT | G | | G | | | 8/5/14 | 0920 | 8 | | X | X | | | | | X | X | X | | | | | | | | | | |
| 2 | MW-5-08052014 | WT | G | | G | | | 8/5/14 | 1012 | 8 | | X | X | | | | | X | X | X | | | | | | | | | | |
| 3 | MW-6-08052014 | WT | G | | G | | | 8/5/14 | 1100 | 8 | | X | X | | | | | X | X | X | | | | | | | | | | |
| 4 | MW-11-08072014 | WT | G | | G | | | 8/7/14 | 1040 | 8 | | X | X | | | | | X | X | X | | | | | | | | | | |
| 5 | MW-12-08072014 | WT | G | | G | | | 8/7/14 | 0910 | 8 | | X | X | | | | | X | X | X | | | | | | | | | | |
| 6 | MW-13-08072014 | WT | G | | G | | | 8/7/14 | 0749 | 8 | | X | X | | | | | X | X | X | | | | | | | | | | |
| 7 | BP-5544-08052014 | WT | G | | G | | | 8/5/14 | - | 8 | | X | X | | | | | X | X | X | | | | | | | | | | |
| 8 | BP-5544-08052014 | WT | G | | G | | | 8/5/14 | 0706 | 3 | | | | X | | | | X | X | X | | | | | | | | | on hold | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS |
|---------------------|-------------------------------|------|------|---------------------------|---------|-------|-------------------|
| | Craig Peters | | | Vincent ELLE | 8/12/14 | 16:00 | |
| | | | | Cristina ELLE | 8/13/14 | 0940 | 9.7-18 Y Y Y |

| | | | | | |
|---|---------------------|-----------|-----------------------|-----------------------------|----------------------|
| SAMPLER NAME AND SIGNATURE | | TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) |
| PRINT Name of SAMPLER: Craig Peters | | | | | |
| SIGNATURE of SAMPLER: <i>Craig Peters</i> | DATE Signed: 8/7/14 | | | | |

Client: ARCADIS

ARCO 5544

Delivery and Receipt Information

Delivery Method: SeaTac Arrival Timestamp: 08/13/2014 9:40
 Number of Packages: 2 Number of Projects: 3
 State/Province of Origin: WA

Arrival Condition Summary

| | | | |
|--------------------------------------|------------|---------------------------------------|------------|
| Shipping Container Sealed: | <u>Yes</u> | Total Trip Blank Qty: | <u>3</u> |
| Custody Seal Present: | <u>Yes</u> | Trip Blank Type: | <u>HCL</u> |
| Custody Seal Intact: | <u>Yes</u> | Air Quality Samples Present: | <u>No</u> |
| Samples Chilled: | <u>Yes</u> | Air Quality Flow Controllers Present: | <u>N/A</u> |
| Paperwork Enclosed: | <u>Yes</u> | Flow Controller Quantity: | <u>0</u> |
| Samples Intact: | <u>Yes</u> | Air Quality Returns: | <u>N/A</u> |
| Missing Samples: | <u>No</u> | | |
| Extra Samples: | <u>No</u> | | |
| Discrepancy in Container Qty on COC: | <u>No</u> | | |
| Sample IDs on COC match Containers: | <u>Yes</u> | | |
| Sample Date/Times match COC: | <u>Yes</u> | | |
| VOA Vial Headspace ≥ 6mm: | <u>No</u> | | |
| VOA IDs (≥ 6mm): | <u>N/A</u> | | |

Unpacked by Corey Eshleman (3647) at 10:53 on 08/13/2014

Samples Chilled Details: ARCO 5544

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

| Cooler # | Thermometer ID | Corrected Temp | Therm. Type | Ice Type | Ice Present? | Ice Container | Samples | |
|----------|----------------|----------------|-------------|----------|--------------|---------------|--------------------------------|----------------|
| | | | | | | | Collected Same Day as Receipt? | Elevated Temp? |
| 1 | DT121 | 1.0 | DT | Wet | Y | Bagged | N | N |
| 2 | DT121 | 0.7 | DT | Wet | Y | Bagged | N | N |

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

| | | | |
|----------------------|-----------------------|-----------------|----------------------------------|
| RL | Reporting Limit | BMQL | Below Minimum Quantitation Level |
| N.D. | none detected | MPN | Most Probable Number |
| TNTC | Too Numerous To Count | CP Units | cobalt-chloroplatinate units |
| IU | International Units | NTU | nephelometric turbidity units |
| umhos/cm | micromhos/cm | ng | nanogram(s) |
| C | degrees Celsius | F | degrees Fahrenheit |
| meq | milliequivalents | lb. | pound(s) |
| g | gram(s) | kg | kilogram(s) |
| µg | microgram(s) | mg | milligram(s) |
| mL | milliliter(s) | L | liter(s) |
| m³ | cubic meter(s) | µL | microliter(s) |
| | | pg/L | picogram/liter |

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

Inorganic Qualifiers

| | | | |
|--------------|---|----------|---|
| A | TIC is a possible aldol-condensation product | B | Value is $<$ CRDL, but \geq IDL |
| B | Analyte was also detected in the blank | E | Estimated due to interference |
| C | Pesticide result confirmed by GC/MS | M | Duplicate injection precision not met |
| D | Compound quantitated on a diluted sample | N | Spike sample not within control limits |
| E | Concentration exceeds the calibration range of the instrument | S | Method of standard additions (MSA) used for calculation |
| N | Presumptive evidence of a compound (TICs only) | U | Compound was not detected |
| P | Concentration difference between primary and confirmation columns $>$ 25% | W | Post digestion spike out of control limits |
| U | Compound was not detected | * | Duplicate analysis not within control limits |
| X,Y,Z | Defined in case narrative | + | Correlation coefficient for MSA $<$ 0.995 |

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

August 08, 2014

Project: WA-5544

Submittal Date: 07/31/2014
Group Number: 1492739
PO Number: GP09BPNA.WA39
State of Sample Origin: WA

Client Sample Description

AUS-HB-4-5-S-072814 Soil

Lancaster Labs (LL) #

7549908

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

| | | |
|--------------------|--------------------|---------------------------|
| ELECTRONIC COPY TO | ARCADIS U.S., Inc. | Attn: Kyle Haslam |
| ELECTRONIC COPY TO | ARCADIS U.S., Inc. | Attn: Richard Rodriguez |
| ELECTRONIC COPY TO | ARCADIS U.S., Inc. | Attn: Ryan Brauchla |
| ELECTRONIC COPY TO | ARCADIS U.S., Inc. | Attn: Jonathan Flomerfelt |

Respectfully Submitted,



Natalie R. Luciano
Senior Specialist

(717) 556-7258

Project Name: WA-5544
LL Group #: 1492739

General Comments:

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client. The compliance signature is located on the cover page of the Analysis Reports.

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

No additional comments are necessary.

Sample Description: AUS-HB-4-5-S-072814 Soil
WA-5544 COC: R218755
19918 68th Ave South - Kent, WA

LL Sample # SW 7549908
LL Group # 1492739
Account # 13255

Project Name: WA-5544

Collected: 07/28/2014 12:30 by RB

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 07/31/2014 09:55

Reported: 08/08/2014 14:57

KENT1

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit* | Dry Limit of Quantitation | Dilution Factor |
|---|-------------------------------|------------|------------|-----------------------------|---------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B | | | | | | |
| 10237 | Benzene | 71-43-2 | 0.0058 J | 0.00064 | 0.0064 | 1.05 |
| 10237 | Ethylbenzene | 100-41-4 | N.D. | 0.0013 | 0.0064 | 1.05 |
| 10237 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.00064 | 0.0064 | 1.05 |
| 10237 | Toluene | 108-88-3 | 0.0033 J | 0.0013 | 0.0064 | 1.05 |
| 10237 | Xylene (Total) | 1330-20-7 | 0.019 | 0.0013 | 0.0064 | 1.05 |
| GC Volatiles ECY 97-602 NWTPH-Gx | | | | | | |
| 02005 | NWTPH-GX Soil C7-C12 | n.a. | 2.6 J | 1.4 | 7.1 | 29.25 |
| GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified | | | | | | |
| 08272 | Diesel Range Organics C12-C24 | n.a. | N.D. | 3.7 | 8.5 | 1 |
| 08272 | Heavy Range Organics C24-C40 | n.a. | N.D. | 12 | 37 | 1 |
| Wet Chemistry SM 2540 G-1997 | | | | | | |
| 00111 | Moisture | n.a. | 18.0 | 0.50 | 0.50 | 1 |
| Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis. | | | | | | |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|------------------------------|--------|--------------|------------------------|------------------------|-----------------|
| 10237 | BTEX, MTBE, EDC, EDB | SW-846 8260B | 1 | A142171AA | 08/05/2014 21:42 | Chelsea B Stong | 1.05 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 1 | 201421235251 | 07/28/2014 12:30 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 2 | 201421235251 | 07/28/2014 12:30 | Client Supplied | 1 |
| 07579 | GC/MS-5g Field Preserv.MeOH-NC | SW-846 5035A | 1 | 201421235251 | 07/28/2014 12:30 | Client Supplied | 1 |
| 02005 | NWTPH-GX Soil C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14217A34A | 08/06/2014 15:49 | Laura M Krieger | 29.25 |
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 1 | 201421235251 | 07/28/2014 12:30 | Client Supplied | n.a. |
| 08272 | NWTPH-Dx soil | ECY 97-602 NWTPH-Dx modified | 1 | 142120018A | 08/01/2014 16:45 | Glorines Suarez-Rivera | 1 |
| 11234 | WA DRO NW DX Soils (Non SG) | ECY 97-602 NWTPH-Dx 06/97 | 1 | 142120018A | 07/31/2014 18:30 | Sally L Appleyard | 1 |
| 00111 | Moisture | SM 2540 G-1997 | 1 | 14212820006B | 07/31/2014 19:39 | Scott W Freisher | 1 |

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 08/08/14 at 02:57 PM

Group Number: 1492739

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

| <u>Analysis Name</u> | <u>Blank Result</u> | <u>Blank MDL**</u> | <u>Blank LOQ</u> | <u>Report Units</u> | <u>LCS %REC</u> | <u>LCSD %REC</u> | <u>LCS/LCSD Limits</u> | <u>RPD</u> | <u>RPD Max</u> |
|-------------------------------|---------------------------|--------------------|------------------|---------------------|-----------------|------------------|------------------------|------------|----------------|
| Batch number: A142171AA | Sample number(s): 7549908 | | | | | | | | |
| Benzene | N.D. | 0.00050 | 0.0050 | mg/kg | 91 | | 80-120 | | |
| Ethylbenzene | N.D. | 0.0010 | 0.0050 | mg/kg | 91 | | 80-120 | | |
| Methyl Tertiary Butyl Ether | N.D. | 0.00050 | 0.0050 | mg/kg | 80 | | 69-126 | | |
| Toluene | N.D. | 0.0010 | 0.0050 | mg/kg | 91 | | 80-120 | | |
| Xylene (Total) | N.D. | 0.0010 | 0.0050 | mg/kg | 94 | | 80-120 | | |
| Batch number: 14217A34A | Sample number(s): 7549908 | | | | | | | | |
| NWTPH-GX Soil C7-C12 | N.D. | 1.0 | 5.0 | mg/kg | 76 | 74 | 65-120 | 3 | 30 |
| Batch number: 142120018A | Sample number(s): 7549908 | | | | | | | | |
| Diesel Range Organics C12-C24 | N.D. | 3.0 | 7.0 | mg/kg | 87 | | 60-120 | | |
| Heavy Range Organics C24-C40 | N.D. | 10. | 30 | mg/kg | | | | | |
| Batch number: 14212820006B | Sample number(s): 7549908 | | | | | | | | |
| Moisture | | | | | 100 | | 99-101 | | |

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

| <u>Analysis Name</u> | <u>MS %REC</u> | <u>MSD %REC</u> | <u>MS/MSD Limits</u> | <u>RPD</u> | <u>RPD MAX</u> | <u>BKG Conc</u> | <u>DUP Conc</u> | <u>DUP RPD</u> | <u>Dup RPD Max</u> |
|-------------------------------|--|-----------------|----------------------|------------|----------------|-----------------|-----------------|----------------|--------------------|
| Batch number: A142171AA | Sample number(s): 7549908 UNSPK: P550976 | | | | | | | | |
| Benzene | 101 | 96 | 55-143 | 1 | 30 | | | | |
| Ethylbenzene | 97 | 98 | 44-141 | 7 | 30 | | | | |
| Methyl Tertiary Butyl Ether | 93 | 91 | 55-129 | 4 | 30 | | | | |
| Toluene | 109 | 106 | 50-146 | 3 | 30 | | | | |
| Xylene (Total) | 97 | 99 | 44-136 | 7 | 30 | | | | |
| Batch number: 142120018A | Sample number(s): 7549908 BKG: P548346 | | | | | | | | |
| Diesel Range Organics C12-C24 | | | | | | N.D. | N.D. | 0 (1) | 20 |
| Heavy Range Organics C24-C40 | | | | | | N.D. | N.D. | 0 (1) | 20 |
| Batch number: 14212820006B | Sample number(s): 7549908 BKG: P548346 | | | | | | | | |
| Moisture | | | | | | 20.1 | 20.3 | 1 | 5 |

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 08/08/14 at 02:57 PM

Group Number: 1492739

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: NC UST Volatiles

Batch number: A142171AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---------|----------------------|-----------------------|------------|----------------------|
| 7549908 | 109 | 107 | 90 | 93 |
| Blank | 106 | 105 | 93 | 89 |
| LCS | 102 | 99 | 97 | 97 |
| MS | 105 | 107 | 105 | 86 |
| MSD | 103 | 103 | 104 | 86 |

Limits: 50-141 54-135 52-141 50-131

Analysis Name: NWTPH-GX Soil C7-C12

Batch number: 14217A34A

Trifluorotoluene-F

| | |
|---------|----|
| 7549908 | 51 |
| Blank | 90 |
| LCS | 80 |
| LCSD | 79 |

Limits: 50-142

Analysis Name: NWTPH-Dx soil

Batch number: 142120018A

Orthoterphenyl

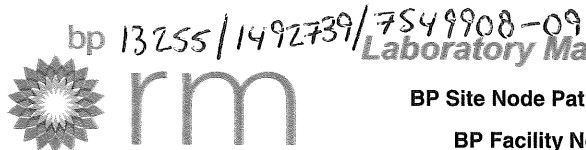
| | |
|---------|-----|
| 7549908 | 104 |
| Blank | 105 |
| DUP | 106 |
| LCS | 107 |

Limits: 50-150

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



BP Site Node Path: _____
BP Facility No: 5544

Req Due Date (mm/dd/yy): 5-DAY TAT Rush TAT: Yes No
Lab Work Order Number: _____

| | | |
|--|---|---|
| Lab Name: <u>Eurofins Lancaster Labs Env LLC</u> | Facility Address: <u>19918 65th Avenue South</u> | Consultant/Contractor: <u>ARCADIS</u> |
| Lab Address: <u>2425 New Holland Pike, Lancaster, PA 17601</u> | City, State, ZIP Code: <u>Kent, WA</u> | Consultant/Contractor Project No: <u>GPO9BPVA.WA39</u> |
| Lab PM: <u>Natalie Luciani</u> | Lead Regulatory Agency: <u>Ecology</u> | Address: <u>1100 Olive Way, Suite 800, Seattle, WA 98101</u> |
| Lab Phone: <u>717-556-7258</u> | California Global ID No.: | Consultant/Contractor PM: <u>R. Rodriguez</u> |
| Lab Shipping Acct: | Enfos Proposal No: | Phone: <u>206-726-4751</u> Email: <u>richard.rodriguez@arcadis-us.com</u> |
| Lab Bottle Order No: | Accounting Mode: Provision ___ OOC-BU ___ OOC-RM ___ | Email EDD To: <u>Jonathan.Florentfelt@arcadis-us.com</u> and to <u>lab.enfosdoc@bp.com</u> <u>ryan.brauchla@arcadis-us.com</u> |
| Other Info: | Stage: _____ Activity: _____ | Invoice To: BP ___ Contractor <input checked="" type="checkbox"/> |

| BP Project Manager (PM): | | | | Matrix | | No. Containers / Preservative | | | | | Requested Analyses | | | | | | | | Report Type & QC Level | | | | | | | | |
|--------------------------|-----------------------|---------|------|--------------|----------------|-------------------------------|--------------------------|---------------------------|-------------|-------|--------------------|-----|----------|----------------|-------------------|--------------------------------------|-------------------------------------|-----------------|------------------------|--------------|---------------|---------------|---|--|--|--|--|
| BP PM Phone: | | | | Soil / Solid | Water / Liquid | Air / Vapor | Is this location a well? | Total Number of Container | Unpreserved | H2SO4 | HNO3 | HCl | Methanol | GRO by NwTPHGx | BTEX/MTBE by 8021 | DRO/HO w/6 SGC ^{by NwTPHGx} | DRO/HO w/ SGC ^{by NwTPHGx} | EDB/EDL by 8021 | EPE-Lead by 6010B | TOC by 5310B | EPH by WA EPH | VPH by WA VPH | CPAHs & Total Naphthalenes ^{by 827025EM} | Standard <input checked="" type="checkbox"/> | | Full Data Package ___ | |
| BP PM Email: | | | | | | | | | | | | | | | | | | | | | | | | Comments | | | |
| Lab No. | Sample Description | Date | Time | | | | | | | | | | | | | | | | | | | | | | | | |
| | AUS-HB-3-2.5-S-072814 | 7/28/14 | 1100 | X | | N | 9 | 4 | | | | 3 | 2 | HOLD | | | | | | | | | | | | | |
| | AUS-HB-3-5-S-072814 | 7/28/14 | 1120 | X | | N | 9 | 4 | | | | 3 | 2 | HOLD | | | | | | | | | | | | | |
| | AUS-HB-4-2.5-S-072814 | 7/28/14 | 1210 | X | | N | 9 | 4 | | | | 3 | 2 | HOLD | | | | | | | | | | | | | |
| | AUS-HB-4-5-S-072814 | 7/28/14 | 1230 | X | | N | 9 | 4 | | | | 3 | 2 | X | X | X | HOLD | | | | | | | | | 5-DAY TAT on GRO, BTEX, and DRO/HO without silicagel cleanup | |
| | MW-11-5-S-072814 | 7/28/14 | 0845 | X | | Y | 9 | 4 | | | | 3 | 2 | HOLD | | | | | | | | | | | | | |
| | MW-12-5-S-072814 | 7/28/14 | 1440 | X | | Y | 9 | 4 | | | | 3 | 2 | HOLD | | | | | | | | | | | | | |
| | MW-13-5-S-072814 | 7/28/14 | 1320 | X | | Y | 9 | 4 | | | | 3 | 2 | HOLD | | | | | | | | | | | | | |
| | Trip Blank | - | - | | | | 5 | | | | | 3 | 2 | X | X | | | | | | X | | | | | HOLD | |

| | | | | | | | | |
|--|--------------------------------|--|----------------|-------------|-----------------------------|--|----------------|--------------|
| Sampler's Name: <u>Ryan Brauchla</u> | Relinquished By / Affiliation | | Date | Time | Accepted By / Affiliation | | Date | Time |
| Sampler's Company: <u>ARCADIS</u> | <u>Ryan Brauchla / ARCADIS</u> | | <u>7/30/14</u> | <u>9:07</u> | <u>Ryan Brauchla / ELLE</u> | | <u>7/30/14</u> | <u>09:10</u> |
| Shipment Method: <u>2nd Day Air</u> Ship Date: <u>7/29/14</u> | | | | | <u>Ryan Brauchla / ELLE</u> | | <u>7/31/14</u> | <u>4:55</u> |
| Shipment Tracking No: | | | | | | | | |

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: 0.5 °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

6# 1492739

Natalie Luciano

From: Rodriguez, Richard <Richard.Rodriguez@arcadis-us.com>
Sent: Wednesday, July 30, 2014 11:01 AM
To: Natalie Luciano; Flomerfelt, Jonathan
Subject: RE: Bottle requests by 7/25

Yes, this is acceptable

Thanks for letting us know
Rick

From: Natalie Luciano [<mailto:NatalieLuciano@eurofinsUS.com>]
Sent: Wednesday, July 30, 2014 7:44 AM
To: Flomerfelt, Jonathan
Cc: Rodriguez, Richard
Subject: RE: Bottle requests by 7/25

Hello Jonathan,

We got samples from WA-5544 today. The COC had 8021 for BTEX/MTBE. We've typically done these by 8260 especially since we cannot analyze EDB/EDC by 8021. I'm having them entered for 8260, please confirm that this is acceptable.

Can we use 8260 for the other sites as well?

Thank you,
Natalie Luciano
Senior Specialist, Environmental Client Services
Phone: +1 717-556-7258

Client: Arcadis

Delivery and Receipt Information

Delivery Method: SeaTac Arrival Timestamp: 07/31/2014 9:55
 Number of Packages: 1 Number of Projects: 1
 State/Province of Origin: WA

Arrival Condition Summary

| | | | |
|--------------------------------------|------------|---------------------------------------|------------------------|
| Shipping Container Sealed: | <u>Yes</u> | Total Trip Blank Qty: | <u>5</u> |
| Custody Seal Present: | <u>Yes</u> | Trip Blank Type: | <u>3-MeOH 2-NaHSO4</u> |
| Custody Seal Intact: | <u>Yes</u> | Air Quality Samples Present: | <u>No</u> |
| Samples Chilled: | <u>Yes</u> | Air Quality Flow Controllers Present: | <u>N/A</u> |
| Paperwork Enclosed: | <u>Yes</u> | Flow Controller Quantity: | <u>0</u> |
| Samples Intact: | <u>Yes</u> | Air Quality Returns: | <u>N/A</u> |
| Missing Samples: | <u>No</u> | | |
| Extra Samples: | <u>No</u> | | |
| Discrepancy in Container Qty on COC: | <u>No</u> | | |
| Sample IDs on COC match Containers: | <u>Yes</u> | | |
| Sample Date/Times match COC: | <u>Yes</u> | | |
| VOA Vial Headspace \geq 6mm: | <u>N/A</u> | | |
| VOA IDs (\geq 6mm): | <u>N/A</u> | | |

Unpacked by Brandy Barclay (2299) at 10:26 on 07/31/2014

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* All Temperatures in °C.

| Cooler # | Thermometer ID | Corrected Temp | Therm. Type | Ice Type | Ice Present? | Ice Container | Samples Collected Same Day as Receipt? | Elevated Temp? |
|----------|----------------|----------------|-------------|----------|--------------|---------------|--|----------------|
| 1 | DT146 | 0.5 | DT | Wet | Y | Bagged | N | N |

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

| | | | |
|-----------------|-----------------------|-----------------|----------------------------------|
| RL | Reporting Limit | BMQL | Below Minimum Quantitation Level |
| N.D. | none detected | MPN | Most Probable Number |
| TNTC | Too Numerous To Count | CP Units | cobalt-chloroplatinate units |
| IU | International Units | NTU | nephelometric turbidity units |
| umhos/cm | micromhos/cm | ng | nanogram(s) |
| C | degrees Celsius | F | degrees Fahrenheit |
| meq | milliequivalents | lb. | pound(s) |
| g | gram(s) | kg | kilogram(s) |
| µg | microgram(s) | mg | milligram(s) |
| mL | milliliter(s) | L | liter(s) |
| m3 | cubic meter(s) | µL | microliter(s) |
| | | pg/L | picogram/liter |

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

Inorganic Qualifiers

| | | | |
|--------------|---|----------|---|
| A | TIC is a possible aldol-condensation product | B | Value is $<$ CRDL, but \geq IDL |
| B | Analyte was also detected in the blank | E | Estimated due to interference |
| C | Pesticide result confirmed by GC/MS | M | Duplicate injection precision not met |
| D | Compound quantitated on a diluted sample | N | Spike sample not within control limits |
| E | Concentration exceeds the calibration range of the instrument | S | Method of standard additions (MSA) used for calculation |
| N | Presumptive evidence of a compound (TICs only) | U | Compound was not detected |
| P | Concentration difference between primary and confirmation columns $>25\%$ | W | Post digestion spike out of control limits |
| U | Compound was not detected | * | Duplicate analysis not within control limits |
| X,Y,Z | Defined in case narrative | + | Correlation coefficient for MSA <0.995 |

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

August 12, 2014

Project: WA-5544

Submittal Date: 07/30/2014
Group Number: 1492393
PO Number: GP09BPNA.WA39
State of Sample Origin: WA

Client Sample Description

AUS-SB-1-7.5-S-072914 Grab Soil
AUS-SB-2-5-S-072914 Grab Soil
AUS-SB-2-7.5-S-072914 Grab Soil
AUS-SB-2-12-S-072914 Grab Soil

Lancaster Labs (LL) #

7548346
7548347
7548348
7548349

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO
ELECTRONIC COPY TO
ELECTRONIC COPY TO

ARCADIS U.S., Inc.
ARCADIS U.S., Inc.
ARCADIS U.S., Inc.

Attn: Kyle Haslam
Attn: Richard Rodriguez
Attn: Ryan Brauchla

Respectfully Submitted,



Natalie R. Luciano
Senior Specialist

(717) 556-7258

Project Name: WA-5544
LL Group #: 1492393

General Comments:

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client. The compliance signature is located on the cover page of the Analysis Reports.

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

No additional comments are necessary.

Sample Description: AUS-SB-1-7.5-S-072914 Grab Soil
WA-5544 COC: R218754
19918 68th Ave S - Kent, WA

LL Sample # SW 7548346
LL Group # 1492393
Account # 13255

Project Name: WA-5544

Collected: 07/29/2014 11:50 by AB

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 07/30/2014 09:40

Reported: 08/12/2014 14:40

KWS17

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit* | Dry Limit of Quantitation | Dilution Factor |
|---|-------------------------------|------------|------------|-----------------------------|---------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B | | | | | | |
| 10237 | Benzene | 71-43-2 | 0.0071 | 0.00063 | 0.0063 | 1 |
| 10237 | Ethylbenzene | 100-41-4 | N.D. | 0.0013 | 0.0063 | 1 |
| 10237 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.00063 | 0.0063 | 1 |
| 10237 | Toluene | 108-88-3 | 0.0016 J | 0.0013 | 0.0063 | 1 |
| 10237 | Xylene (Total) | 1330-20-7 | 0.0014 J | 0.0013 | 0.0063 | 1 |
| GC Volatiles ECY 97-602 NWTPH-Gx | | | | | | |
| 02005 | NWTPH-GX Soil C7-C12 | n.a. | 5.8 J | 1.5 | 7.3 | 29.12 |
| GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified | | | | | | |
| 08272 | Diesel Range Organics C12-C24 | n.a. | N.D. | 3.8 | 8.8 | 1 |
| 08272 | Heavy Range Organics C24-C40 | n.a. | N.D. | 13 | 38 | 1 |
| Wet Chemistry SM 2540 G-1997 | | | | | | |
| 00111 | Moisture | n.a. | 20.1 | 0.50 | 0.50 | 1 |
| Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis. | | | | | | |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|------------------------------|--------|--------------|------------------------|------------------------|-----------------|
| 10237 | BTEX, MTBE, EDC, EDB | SW-846 8260B | 1 | A142163AA | 08/05/2014 05:36 | Christopher G Torres | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 1 | 201421135233 | 07/29/2014 11:50 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 2 | 201421135233 | 07/29/2014 11:50 | Client Supplied | 1 |
| 07579 | GC/MS-5g Field Preserv.MeOH-NC | SW-846 5035A | 1 | 201421135233 | 07/29/2014 11:50 | Client Supplied | 1 |
| 02005 | NWTPH-GX Soil C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14217A34A | 08/05/2014 18:46 | Marie D Beamenderfer | 29.12 |
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 1 | 201421135233 | 07/29/2014 11:50 | Client Supplied | n.a. |
| 08272 | NWTPH-Dx soil | ECY 97-602 NWTPH-Dx modified | 1 | 142120018A | 08/01/2014 18:13 | Glorines Suarez-Rivera | 1 |
| 11234 | WA DRO NW DX Soils (Non SG) | ECY 97-602 NWTPH-Dx 06/97 | 1 | 142120018A | 07/31/2014 18:30 | Sally L Appleyard | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: AUS-SB-1-7.5-S-072914 Grab Soil
WA-5544 COC: R218754
19918 68th Ave S - Kent, WA

LL Sample # SW 7548346
LL Group # 1492393
Account # 13255

Project Name: WA-5544

Collected: 07/29/2014 11:50 by AB

Atlantic Richfield c/o ARCADIS

Suite 600

Submitted: 07/30/2014 09:40

630 Plaza Drive

Reported: 08/12/2014 14:40

Highlands Ranch CO 80129

KWS17

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|---------------|----------------|--------|--------------|------------------------|------------------|-----------------|
| 00111 | Moisture | SM 2540 G-1997 | 1 | 14212820006B | 07/31/2014 19:39 | Scott W Freisher | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: AUS-SB-2-5-S-072914 Grab Soil
WA-5544 COC: R218754
19918 68th Ave S - Kent, WA

LL Sample # SW 7548347
LL Group # 1492393
Account # 13255

Project Name: WA-5544

Collected: 07/29/2014 09:10 by AB

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 07/30/2014 09:40

Reported: 08/12/2014 14:40

KWS25

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit* | Dry Limit of Quantitation | Dilution Factor |
|---|-------------------------------|------------|------------|-----------------------------|---------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B | | | | | | |
| 10237 | Benzene | 71-43-2 | 0.00099 J | 0.00060 | 0.0060 | 1.02 |
| 10237 | Ethylbenzene | 100-41-4 | N.D. | 0.0012 | 0.0060 | 1.02 |
| 10237 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.00060 | 0.0060 | 1.02 |
| 10237 | Toluene | 108-88-3 | N.D. | 0.0012 | 0.0060 | 1.02 |
| 10237 | Xylene (Total) | 1330-20-7 | N.D. | 0.0012 | 0.0060 | 1.02 |
| GC Volatiles ECY 97-602 NWTPH-Gx | | | | | | |
| 02005 | NWTPH-GX Soil C7-C12 | n.a. | N.D. | 1.4 | 6.8 | 28.56 |
| GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified | | | | | | |
| 08272 | Diesel Range Organics C12-C24 | n.a. | N.D. | 3.6 | 8.3 | 1 |
| 08272 | Heavy Range Organics C24-C40 | n.a. | 21 J | 12 | 36 | 1 |
| Wet Chemistry SM 2540 G-1997 | | | | | | |
| 00111 | Moisture | n.a. | 15.6 | 0.50 | 0.50 | 1 |
| Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis. | | | | | | |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|------------------------------|--------|--------------|------------------------|------------------------|-----------------|
| 10237 | BTEX, MTBE, EDC, EDB | SW-846 8260B | 1 | A142163AA | 08/05/2014 04:20 | Christopher G Torres | 1.02 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 1 | 201421135233 | 07/29/2014 09:10 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 2 | 201421135233 | 07/29/2014 09:10 | Client Supplied | 1 |
| 07579 | GC/MS-5g Field Preserv.MeOH-NC | SW-846 5035A | 1 | 201421135233 | 07/29/2014 09:10 | Client Supplied | 1 |
| 02005 | NWTPH-GX Soil C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14217A34A | 08/05/2014 19:22 | Marie D Beamenderfer | 28.56 |
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 1 | 201421135233 | 07/29/2014 09:10 | Client Supplied | n.a. |
| 08272 | NWTPH-Dx soil | ECY 97-602 NWTPH-Dx modified | 1 | 142120018A | 08/01/2014 18:35 | Glorines Suarez-Rivera | 1 |
| 11234 | WA DRO NW DX Soils (Non SG) | ECY 97-602 NWTPH-Dx 06/97 | 1 | 142120018A | 07/31/2014 18:30 | Sally L Appleyard | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: AUS-SB-2-5-S-072914 Grab Soil
WA-5544 COC: R218754
19918 68th Ave S - Kent, WA

LL Sample # SW 7548347
LL Group # 1492393
Account # 13255

Project Name: WA-5544

Collected: 07/29/2014 09:10 by AB

Atlantic Richfield c/o ARCADIS

Suite 600

Submitted: 07/30/2014 09:40

630 Plaza Drive

Reported: 08/12/2014 14:40

Highlands Ranch CO 80129

KWS25

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|---------------|----------------|--------|--------------|------------------------|------------------|-----------------|
| 00111 | Moisture | SM 2540 G-1997 | 1 | 14212820006B | 07/31/2014 19:39 | Scott W Freisher | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: AUS-SB-2-7.5-S-072914 Grab Soil
WA-5544 COC: R218754
19918 68th Ave S - Kent, WA

LL Sample # SW 7548348
LL Group # 1492393
Account # 13255

Project Name: WA-5544

Collected: 07/29/2014 09:45 by AB

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 07/30/2014 09:40

Reported: 08/12/2014 14:40

KWS27

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit* | Dry Limit of Quantitation | Dilution Factor |
|---|-------------------------------|------------|------------|-----------------------------|---------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B | | | | | | |
| 10237 | Benzene | 71-43-2 | 0.0015 J | 0.00061 | 0.0061 | 0.89 |
| 10237 | Ethylbenzene | 100-41-4 | N.D. | 0.0012 | 0.0061 | 0.89 |
| 10237 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.00061 | 0.0061 | 0.89 |
| 10237 | Toluene | 108-88-3 | N.D. | 0.0012 | 0.0061 | 0.89 |
| 10237 | Xylene (Total) | 1330-20-7 | N.D. | 0.0012 | 0.0061 | 0.89 |
| GC Volatiles ECY 97-602 NWTPH-Gx | | | | | | |
| 02005 | NWTPH-GX Soil C7-C12 | n.a. | N.D. | 1.7 | 8.4 | 30.88 |
| GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified | | | | | | |
| 08272 | Diesel Range Organics C12-C24 | n.a. | N.D. | 4.1 | 9.6 | 1 |
| 08272 | Heavy Range Organics C24-C40 | n.a. | N.D. | 14 | 41 | 1 |
| Wet Chemistry SM 2540 G-1997 | | | | | | |
| 00111 | Moisture | n.a. | 26.8 | 0.50 | 0.50 | 1 |
| Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis. | | | | | | |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|------------------------------|--------|--------------|------------------------|------------------------|-----------------|
| 10237 | BTEX, MTBE, EDC, EDB | SW-846 8260B | 1 | A142171AA | 08/05/2014 20:57 | Chelsea B Stong | 0.89 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 1 | 201421135233 | 07/29/2014 09:45 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 2 | 201421135233 | 07/29/2014 09:45 | Client Supplied | 1 |
| 07579 | GC/MS-5g Field Preserv.MeOH-NC | SW-846 5035A | 1 | 201421135233 | 07/29/2014 09:45 | Client Supplied | 1 |
| 02005 | NWTPH-GX Soil C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14217A34A | 08/05/2014 19:58 | Marie D Beamenderfer | 30.88 |
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 1 | 201421135233 | 07/29/2014 09:45 | Client Supplied | n.a. |
| 08272 | NWTPH-Dx soil | ECY 97-602 NWTPH-Dx modified | 1 | 142120018A | 08/01/2014 17:29 | Glorines Suarez-Rivera | 1 |
| 11234 | WA DRO NW DX Soils (Non SG) | ECY 97-602 NWTPH-Dx 06/97 | 1 | 142120018A | 07/31/2014 18:30 | Sally L Appleyard | 1 |
| 00111 | Moisture | SM 2540 G-1997 | 1 | 14212820006B | 07/31/2014 19:39 | Scott W Freisher | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: AUS-SB-2-12-S-072914 Grab Soil
WA-5544 COC: R218754
19918 68th Ave S - Kent, WA

LL Sample # SW 7548349
LL Group # 1492393
Account # 13255

Project Name: WA-5544

Collected: 07/29/2014 10:30 by AB

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 07/30/2014 09:40

Reported: 08/12/2014 14:40

KWS12

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit* | Dry Limit of Quantitation | Dilution Factor |
|---|-------------------------------|------------|------------|-----------------------------|---------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B | | | | | | |
| 10237 | Benzene | 71-43-2 | 0.0018 J | 0.00058 | 0.0058 | 0.8 |
| 10237 | Ethylbenzene | 100-41-4 | N.D. | 0.0012 | 0.0058 | 0.8 |
| 10237 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.00058 | 0.0058 | 0.8 |
| 10237 | Toluene | 108-88-3 | N.D. | 0.0012 | 0.0058 | 0.8 |
| 10237 | Xylene (Total) | 1330-20-7 | N.D. | 0.0012 | 0.0058 | 0.8 |
| GC Volatiles ECY 97-602 NWTPH-Gx | | | | | | |
| 02005 | NWTPH-GX Soil C7-C12 | n.a. | N.D. | 1.8 | 9.0 | 30.82 |
| GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified | | | | | | |
| 08272 | Diesel Range Organics C12-C24 | n.a. | N.D. | 4.4 | 10 | 1 |
| 08272 | Heavy Range Organics C24-C40 | n.a. | N.D. | 15 | 44 | 1 |
| Wet Chemistry SM 2540 G-1997 | | | | | | |
| 00111 | Moisture | n.a. | 31.2 | 0.50 | 0.50 | 1 |
| Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis. | | | | | | |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|------------------------------|--------|--------------|------------------------|------------------------|-----------------|
| 10237 | BTEX, MTBE, EDC, EDB | SW-846 8260B | 1 | A142171AA | 08/05/2014 21:19 | Chelsea B Stong | 0.8 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 1 | 201421135233 | 07/29/2014 10:30 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 2 | 201421135233 | 07/29/2014 10:30 | Client Supplied | 1 |
| 07579 | GC/MS-5g Field Preserv.MeOH-NC | SW-846 5035A | 1 | 201421135233 | 07/29/2014 10:30 | Client Supplied | 1 |
| 02005 | NWTPH-GX Soil C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14217A34A | 08/06/2014 10:15 | Marie D Beamenderfer | 30.82 |
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 1 | 201421135233 | 07/29/2014 10:30 | Client Supplied | n.a. |
| 08272 | NWTPH-Dx soil | ECY 97-602 NWTPH-Dx modified | 1 | 142120018A | 08/01/2014 17:07 | Glorines Suarez-Rivera | 1 |
| 11234 | WA DRO NW DX Soils (Non SG) | ECY 97-602 NWTPH-Dx 06/97 | 1 | 142120018A | 07/31/2014 18:30 | Sally L Appleyard | 1 |
| 00111 | Moisture | SM 2540 G-1997 | 1 | 14212820006B | 07/31/2014 19:39 | Scott W Freisher | 1 |

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 08/12/14 at 02:40 PM

Group Number: 1492393

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

| <u>Analysis Name</u> | <u>Blank Result</u> | <u>Blank MDL**</u> | <u>Blank LOQ</u> | <u>Report Units</u> | <u>LCS %REC</u> | <u>LCSD %REC</u> | <u>LCS/LCSD Limits</u> | <u>RPD</u> | <u>RPD Max</u> |
|-------------------------------|-----------------------------------|--------------------|------------------|---------------------|-----------------|------------------|------------------------|------------|----------------|
| Batch number: A142163AA | Sample number(s): 7548346-7548347 | | | | | | | | |
| Benzene | N.D. | 0.00050 | 0.0050 | mg/kg | 86 | 84 | 80-120 | 2 | 30 |
| Ethylbenzene | N.D. | 0.0010 | 0.0050 | mg/kg | 85 | 84 | 80-120 | 2 | 30 |
| Methyl Tertiary Butyl Ether | N.D. | 0.00050 | 0.0050 | mg/kg | 83 | 80 | 69-126 | 4 | 30 |
| Toluene | N.D. | 0.0010 | 0.0050 | mg/kg | 86 | 85 | 80-120 | 1 | 30 |
| Xylene (Total) | N.D. | 0.0010 | 0.0050 | mg/kg | 87 | 86 | 80-120 | 2 | 30 |
| Batch number: A142171AA | Sample number(s): 7548348-7548349 | | | | | | | | |
| Benzene | N.D. | 0.00050 | 0.0050 | mg/kg | 91 | | 80-120 | | |
| Ethylbenzene | N.D. | 0.0010 | 0.0050 | mg/kg | 91 | | 80-120 | | |
| Methyl Tertiary Butyl Ether | N.D. | 0.00050 | 0.0050 | mg/kg | 80 | | 69-126 | | |
| Toluene | N.D. | 0.0010 | 0.0050 | mg/kg | 91 | | 80-120 | | |
| Xylene (Total) | N.D. | 0.0010 | 0.0050 | mg/kg | 94 | | 80-120 | | |
| Batch number: 14217A34A | Sample number(s): 7548346-7548349 | | | | | | | | |
| NWTPH-GX Soil C7-C12 | N.D. | 1.0 | 5.0 | mg/kg | 76 | 74 | 65-120 | 3 | 30 |
| Batch number: 142120018A | Sample number(s): 7548346-7548349 | | | | | | | | |
| Diesel Range Organics C12-C24 | N.D. | 3.0 | 7.0 | mg/kg | 87 | | 60-120 | | |
| Heavy Range Organics C24-C40 | N.D. | 10. | 30 | mg/kg | | | | | |
| Batch number: 14212820006B | Sample number(s): 7548346-7548349 | | | | | | | | |
| Moisture | | | | | 100 | | 99-101 | | |

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

| <u>Analysis Name</u> | <u>MS %REC</u> | <u>MSD %REC</u> | <u>MS/MSD Limits</u> | <u>RPD</u> | <u>RPD MAX</u> | <u>BKG Conc</u> | <u>DUP Conc</u> | <u>DUP RPD</u> | <u>Dup RPD Max</u> |
|-------------------------------|--|-----------------|----------------------|------------|----------------|-----------------|-----------------|----------------|--------------------|
| Batch number: A142171AA | Sample number(s): 7548348-7548349 UNSPK: P550976 | | | | | | | | |
| Benzene | 101 | 96 | 55-143 | 1 | 30 | | | | |
| Ethylbenzene | 97 | 98 | 44-141 | 7 | 30 | | | | |
| Methyl Tertiary Butyl Ether | 93 | 91 | 55-129 | 4 | 30 | | | | |
| Toluene | 109 | 106 | 50-146 | 3 | 30 | | | | |
| Xylene (Total) | 97 | 99 | 44-136 | 7 | 30 | | | | |
| Batch number: 142120018A | Sample number(s): 7548346-7548349 BKG: 7548346 | | | | | | | | |
| Diesel Range Organics C12-C24 | | | | | | N.D. | N.D. | 0 (1) | 20 |
| Heavy Range Organics C24-C40 | | | | | | N.D. | N.D. | 0 (1) | 20 |

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 08/12/14 at 02:40 PM

Group Number: 1492393

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

| <u>Analysis Name</u> | <u>MS %REC</u> | <u>MSD %REC</u> | <u>MS/MSD Limits</u> | <u>RPD</u> | <u>RPD MAX</u> | <u>BKG Conc</u> | <u>DUP Conc</u> | <u>DUP RPD</u> | <u>Dup RPD Max</u> |
|----------------------------|-----------------------------------|-----------------|----------------------|------------|----------------|-----------------|-----------------|----------------|--------------------|
| Batch number: 14212820006B | Sample number(s): 7548346-7548349 | | | | BKG: 7548346 | | | | |
| Moisture | | | | | | 20.1 | 20.3 | 1 | 5 |

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: NC UST Volatiles
Batch number: A142163AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---------|----------------------|-----------------------|------------|----------------------|
| 7548346 | 106 | 106 | 92 | 93 |
| 7548347 | 108 | 111 | 92 | 89 |
| Blank | 103 | 104 | 94 | 91 |
| LCS | 100 | 100 | 98 | 97 |
| LCSD | 99 | 100 | 98 | 98 |
| Limits: | 50-141 | 54-135 | 52-141 | 50-131 |

Analysis Name: NC UST Volatiles
Batch number: A142171AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---------|----------------------|-----------------------|------------|----------------------|
| 7548348 | 108 | 106 | 92 | 87 |
| 7548349 | 111 | 110 | 92 | 88 |
| Blank | 106 | 105 | 93 | 89 |
| LCS | 102 | 99 | 97 | 97 |
| MS | 105 | 107 | 105 | 86 |
| MSD | 103 | 103 | 104 | 86 |
| Limits: | 50-141 | 54-135 | 52-141 | 50-131 |

Analysis Name: NWTPH-GX Soil C7-C12

Batch number: 14217A34A
Trifluorotoluene-F

| | |
|---------|----|
| 7548346 | 62 |
| 7548347 | 71 |
| 7548348 | 51 |
| 7548349 | 53 |
| Blank | 90 |
| LCS | 80 |
| LCSD | 79 |

Limits: 50-142

Analysis Name: NWTPH-Dx soil

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 08/12/14 at 02:40 PM

Group Number: 1492393

Surrogate Quality Control

Batch number: 142120018A
Orthoterphenyl

| | |
|---------|-----|
| 7548346 | 110 |
| 7548347 | 108 |
| 7548348 | 102 |
| 7548349 | 97 |
| Blank | 105 |
| DUP | 106 |
| LCS | 107 |

Limits: 50-150

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

G# 1492393

Natalie Luciano

From: Rodriguez, Richard <Richard.Rodriguez@arcadis-us.com>
Sent: Wednesday, July 30, 2014 11:01 AM
To: Natalie Luciano; Flomerfelt, Jonathan
Subject: RE: Bottle requests by 7/25

Yes, this is acceptable

Thanks for letting us know
Rick

From: Natalie Luciano [<mailto:NatalieLuciano@eurofinsUS.com>]
Sent: Wednesday, July 30, 2014 7:44 AM
To: Flomerfelt, Jonathan
Cc: Rodriguez, Richard
Subject: RE: Bottle requests by 7/25

Hello Jonathan,

We got samples from WA-5544 today. The COC had 8021 for BTEX/MTBE. We've typically done these by 8260 especially since we cannot analyze EDB/EDC by 8021. I'm having them entered for 8260, please confirm that this is acceptable.

Can we use 8260 for the other sites as well?

Thank you,
Natalie Luciano
Senior Specialist, Environmental Client Services
Phone: +1 717-556-7258

Client: BP

5544

Delivery and Receipt Information

Delivery Method: UPS Arrival Timestamp: 07/30/2014 9:40
 Number of Packages: 1 Number of Projects: 1
 State/Province of Origin: WA

Arrival Condition Summary

| | | | |
|--------------------------------------|------------|---------------------------------------|------------|
| Shipping Container Sealed: | <u>Yes</u> | Total Trip Blank Qty: | <u>0</u> |
| Custody Seal Present: | <u>Yes</u> | Trip Blank Type: | <u>N/A</u> |
| Custody Seal Intact: | <u>Yes</u> | Air Quality Samples Present: | <u>No</u> |
| Samples Chilled: | <u>Yes</u> | Air Quality Flow Controllers Present: | <u>N/A</u> |
| Paperwork Enclosed: | <u>Yes</u> | Flow Controller Quantity: | <u>0</u> |
| Samples Intact: | <u>Yes</u> | Air Quality Returns: | <u>N/A</u> |
| Missing Samples: | <u>No</u> | | |
| Extra Samples: | <u>No</u> | | |
| Discrepancy in Container Qty on COC: | <u>No</u> | | |
| Sample IDs on COC match Containers: | <u>Yes</u> | | |
| Sample Date/Times match COC: | <u>No</u> | | |
| VOA Vial Headspace ≥ 6mm: | <u>N/A</u> | | |
| VOA IDs (≥ 6mm): | <u>N/A</u> | | |

Unpacked by Corey Eshleman (3647) at 10:42 on 07/30/2014

Samples Chilled Details: 5544

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

| Cooler # | Thermometer ID | Corrected Temp | Therm. Type | Ice Type | Ice Present? | Ice Container | Samples | |
|----------|----------------|----------------|-------------|----------|--------------|---------------|--------------------------------|----------------|
| | | | | | | | Collected Same Day as Receipt? | Elevated Temp? |
| 1 | DT121 | 1.9 | DT | Wet | Y | Bagged | N | N |

Sample Date/Time Discrepancy Details: 5544

| <u>Sample ID on COC</u> | <u>Date/Time on Label</u> | <u>Comments</u> |
|-------------------------|---------------------------|-----------------|
| AUS-SB-2-7.5-S-072914 | 7/29/2014 09:20 | |

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

| | | | |
|----------------------|-----------------------|-----------------|----------------------------------|
| RL | Reporting Limit | BMQL | Below Minimum Quantitation Level |
| N.D. | none detected | MPN | Most Probable Number |
| TNTC | Too Numerous To Count | CP Units | cobalt-chloroplatinate units |
| IU | International Units | NTU | nephelometric turbidity units |
| umhos/cm | micromhos/cm | ng | nanogram(s) |
| C | degrees Celsius | F | degrees Fahrenheit |
| meq | milliequivalents | lb. | pound(s) |
| g | gram(s) | kg | kilogram(s) |
| µg | microgram(s) | mg | milligram(s) |
| mL | milliliter(s) | L | liter(s) |
| m³ | cubic meter(s) | µL | microliter(s) |
| | | pg/L | picogram/liter |

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

Inorganic Qualifiers

| | | | |
|--------------|---|----------|---|
| A | TIC is a possible aldol-condensation product | B | Value is $<$ CRDL, but \geq IDL |
| B | Analyte was also detected in the blank | E | Estimated due to interference |
| C | Pesticide result confirmed by GC/MS | M | Duplicate injection precision not met |
| D | Compound quantitated on a diluted sample | N | Spike sample not within control limits |
| E | Concentration exceeds the calibration range of the instrument | S | Method of standard additions (MSA) used for calculation |
| N | Presumptive evidence of a compound (TICs only) | U | Compound was not detected |
| P | Concentration difference between primary and confirmation columns $>$ 25% | W | Post digestion spike out of control limits |
| U | Compound was not detected | * | Duplicate analysis not within control limits |
| X,Y,Z | Defined in case narrative | + | Correlation coefficient for MSA $<$ 0.995 |

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ARCADIS

Appendix C

Groundwater Monitoring Field Data Sheets

WELL GAUGING DATA

Project # 141202-CPI Date 12/02/14 Client Arcadis

Site 19918 68th 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 TOO | VOC Notes |
|---------|------|-----------------|--------------|----------------------------------|--------------------------------------|------------------------------------|----------------------|----------------------------|--------------------------|-----------|
| MW-1 | 0930 | 2 | | | | | 7.61 | 18.82 | | 0.0 |
| MW-2 | 0956 | 2 | | | | 8.53 | 18.74 | 0.0 | | |
| MW-3 | 0945 | 2 | | | | 7.78 | 19.19 | 0.0 | | |
| MW-4 | 0920 | 2 | | | | 8.54 | 19.25 | 0.1 | | |
| MW-5 | 1015 | 2 | | | | 9.01 | 18.89 | 0.0 | | |
| MW-6 | 1056 | 2 | | | | 8.91 | 18.56 | 24.0 | | |
| MW-7 | 0908 | 2 | | | | 8.13 | 15.83 | 0.2 | | |
| MW-9 | 1021 | 2 | | | | 8.32 | 18.14 | 0.0 | | |
| MW-10 | 1044 | 2 | | | | 8.51 | 18.72 | 0.4 | | |
| MW-11 | 1005 | 2 | | | | 8.31 | 19.99 | 0.3 | | |
| MW-12 | 1030 | 2 | | | | 8.99 | 20.21 | 0.9 | | |
| MW-13 | 1035 | 2 | | | | 8.88 | 20.15 | ↓ | | 2.9 |
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LOW FLOW WELL MONITORING DATA SHEET

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| Project #: <u>141202-CPI</u> | Client: <u>Arcadi's</u> |
| Sampler: <u>CP</u> | Gauging Date: <u>12/02/14</u> |
| Well I.D.: <u>MW-2</u> | Well Diameter (in.): <u>2</u> 3 4 6 8 |
| Total Well Depth (ft.): <u>18.74</u> | Depth to Water (ft.): <u>8.53</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: <u>VSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1215 Flow Rate: 100 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.) |
|------|--------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|-------------------------|
| 1221 | 15.41 | 6.76 | 1115 | 12 | 1.99 | 243.6 | 600 | 8.60 |
| 1224 | 15.22 | 6.67 | 1114 | 9 | 1.59 | 235.0 | 900 | 8.64 |
| 1227 | 15.10 | 6.60 | 1113 | 10 | 1.34 | 228.2 | 1200 | 8.70 |
| 1230 | 15.09 | 6.58 | 1111 | 8 | 1.26 | 223.5 | 1500 | 8.72 |
| 1233 | 15.08 | 6.58 | 1110 | 7 | 1.19 | 221.4 | 1800 | 8.75 |
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| Did well dewater? Yes <input checked="" type="radio"/> No <input type="radio"/> | Amount actually evacuated: <u>1.8L</u> |
| Sampling Time: <u>1234</u> | Sampling Date: <u>12/2/14</u> |
| Sample I.D.: <u>MW-2-12022014</u> | Laboratory: <u>Lancaster</u> |
| Analyzed for: <input checked="" type="checkbox"/> TPH-D <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MIBE <input type="checkbox"/> TPH-D | Other: <u>SEE COC</u> |
| Equipment Blank I.D.: _____ @ _____ Time | Duplicate I.D.: <u>BD-5544-12022014</u> |

LOW FLOW WELL MONITORING DATA SHEET

| | |
|--------------------------------------|---------------------------------------|
| Project #: <u>141202-CP1</u> | Client: <u>Arcadis</u> |
| Sampler: <u>CP</u> | Gauging Date: <u>12/02/14</u> |
| Well I.D.: <u>MW-5</u> | Well Diameter (in.): <u>2</u> 3 4 6 8 |
| Total Well Depth (ft.): <u>18.89</u> | Depth to Water (ft.): <u>9.01</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: <u>VSI 556</u> |

Purge Method: 2" Grundfos Pump ; Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1306 Flow Rate: 100 mL/min Pump Depth: 14'

| Time | Temp. (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.) |
|-------------|------------------|-------------|------------------------------|---------------------|----------------|--------------|--------------------------------|-------------------------|
| <u>1312</u> | <u>14.08</u> | <u>6.40</u> | <u>949</u> | <u>28</u> | <u>1.73</u> | <u>236.8</u> | <u>600</u> | <u>9.20</u> |
| <u>1315</u> | <u>13.83</u> | <u>6.42</u> | <u>958</u> | <u>25</u> | <u>1.52</u> | <u>237.5</u> | <u>900</u> | <u>9.25</u> |
| <u>1318</u> | <u>13.07</u> | <u>6.41</u> | <u>957</u> | <u>24</u> | <u>1.55</u> | <u>235.1</u> | <u>1200</u> | <u>9.31</u> |
| <u>1321</u> | <u>13.01</u> | <u>6.41</u> | <u>954</u> | <u>19</u> | <u>1.39</u> | <u>229.8</u> | <u>1500</u> | <u>9.35</u> |
| <u>1324</u> | <u>12.97</u> | <u>6.41</u> | <u>953</u> | <u>18</u> | <u>1.33</u> | <u>226.1</u> | <u>1800</u> | <u>9.40</u> |
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Did well dewater? Yes No Amount actually evacuated: 1.8L

Sampling Time: 1325 Sampling Date: 12/2/14

Sample I.D.: MW-5-12022014 Laboratory: Lancaster

Analyzed for: TPH-C BTEX MIBE TPH-D Other: See COC

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

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------------------|---------------------------------------|
| Project #: <u>141202-CPI</u> | Client: <u>Arcadis</u> |
| Sampler: <u>CP</u> | Gauging Date: <u>12/02/14</u> |
| Well I.D.: <u>MW-6</u> | Well Diameter (in.): <u>2</u> 3 4 6 8 |
| Total Well Depth (ft.): <u>18.56</u> | Depth to Water (ft.): <u>8.91</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: <u>VSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1106 Flow Rate: 100 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.) |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|-------------------------|
| 1112 | 16.01 | 6.84 | 1373 | 98 | 2.20 | 162.4 | 600 | 9.21 |
| 1115 | 16.06 | 6.75 | 1339 | 8 | 1.95 | 169.3 | 900 | 9.30 |
| 1118 | 17.06 | 6.74 | 1338 | 7 | 1.70 | 179.3 | 1200 | 9.36 |
| 1121 | 17.15 | 6.74 | 1343 | 7 | 1.48 | 183.0 | 1500 | 9.41 |
| 1124 | 16.81 | 6.72 | 1332 | 6 | 1.35 | 190.6 | 1800 | 9.50 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: <u>1.8L</u> |
| Sampling Time: <u>1125</u> | Sampling Date: <u>12/2/14</u> |
| Sample I.D.: <u>MW-6-12022014</u> | Laboratory: <u>Lancaster</u> |
| Analyzed for: <input checked="" type="checkbox"/> TPH-C <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MTBE <input type="checkbox"/> TPH-D | Other: <u>See COC</u> |
| Equipment Blank I.D.: _____ @ _____ Time | Duplicate I.D.: _____ |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------------------|---------------------------------------|
| Project #: <u>141202-CPI</u> | Client: <u>Arcadis</u> |
| Sampler: <u>CP</u> | Gauging Date: <u>12/02/14</u> |
| Well I.D.: <u>MW-11</u> | Well Diameter (in.): <u>2</u> 3 4 6 8 |
| Total Well Depth (ft.): <u>19.99</u> | Depth to Water (ft.): <u>8.31</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: <u>VSI 556</u> |

Purge Method: 2" Grundfos Pump ; Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1457 Flow Rate: 100 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 <u>ml</u>) | Depth to Water (ft.) |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--|-------------------------|
| 1503 | 11.64 | 6.47 | 699 | 49 | 1.99 | 217.3 | 600 | 8.51 |
| 1506 | 11.53 | 6.44 | 693 | 46 | 1.55 | 204.8 | 900 | 8.51 |
| 1509 | 11.41 | 6.42 | 694 | 40 | 1.38 | 199.6 | 1200 | 8.52 |
| 1512 | 11.40 | 6.41 | 693 | 36 | 1.34 | 197.5 | 1500 | 8.54 |
| 1515 | 11.38 | 6.40 | 693 | 34 | 1.27 | 195.3 | 1800 | 8.54 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: <u>1.8L</u> |
| Sampling Time: <u>1516</u> | Sampling Date: <u>12/2/14</u> |
| Sample I.D.: <u>MW-11-12022014</u> | Laboratory: <u>Lancaster</u> |
| Analyzed for: <input checked="" type="checkbox"/> TPH-C <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MTBE <input type="checkbox"/> TPH-D | Other: <u>See COC</u> |
| Equipment Blank I.D.: _____ @ _____ Time | Duplicate I.D.: _____ |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------------------|---------------------------------------|
| Project #: <u>141202-CPI</u> | Client: <u>Arcadis</u> |
| Sampler: <u>CP</u> | Gauging Date: <u>12/02/14</u> |
| Well I.D.: <u>MW-12</u> | Well Diameter (in.): <u>2</u> 3 4 6 8 |
| Total Well Depth (ft.): <u>20.21</u> | Depth to Water (ft.): <u>8.99</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: <u>VST 556</u> |

Purge Method: 2" Grundfos Pump ; Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1350 Flow Rate: 100 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.) |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|-------------------------|
| 1356 | 15.46 | 6.17 | 997 | 20 | 1.69 | 227.8 | 600 | 9.15 |
| 1359 | 13.29 | 6.21 | 991 | 40 | 2.00 | 229.9 | 900 | 9.25 |
| 1402 | 13.58 | 6.26 | 1001 | 39 | 2.00 | 229.1 | 1200 | 9.32 |
| 1405 | 13.47 | 6.27 | 998 | 29 | 1.85 | 224.1 | 1500 | 9.40 |
| 1408 | 13.53 | 6.27 | 995 | 27 | 1.67 | 219.4 | 1800 | 9.50 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: <u>1.8L</u> |
| Sampling Time: <u>1409</u> | Sampling Date: <u>12/2/14</u> |
| Sample I.D.: <u>MW-12-12022014</u> | Laboratory: <u>Lancaster</u> |
| Analyzed for: <input checked="" type="checkbox"/> TPH-C <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MIBE <input type="checkbox"/> TPH-D | Other: <u>See COC</u> |
| Equipment Blank I.D.: _____ @ _____ Time | Duplicate I.D.: _____ |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------------------|---------------------------------------|
| Project #: <u>141202-CPI</u> | Client: <u>Arcadis</u> |
| Sampler: <u>CP</u> | Gauging Date: <u>12/02/14</u> |
| Well I.D.: <u>MW-13</u> | Well Diameter (in.): <u>2</u> 3 4 6 8 |
| Total Well Depth (ft.): <u>20.11</u> | Depth to Water (ft.): <u>8.88</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: <u>VSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1424 Flow Rate: 100 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.) |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|-------------------------|
| 1430 | 13.88 | 6.39 | 848 | 32 | 1.49 | 220.0 | 600 | 9.11 |
| 1433 | 13.68 | 6.40 | 848 | 32 | 1.37 | 211.1 | 900 | 9.19 |
| 1436 | 13.56 | 6.41 | 847 | 30 | 1.29 | 206.1 | 1200 | 9.25 |
| 1439 | 13.63 | 6.41 | 845 | 31 | 1.19 | 199.7 | 1500 | 9.32 |
| 1442 | 13.72 | 6.41 | 842 | 31 | 1.12 | 200.1 | 1800 | |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: <u>1.8L</u> |
| Sampling Time: <u>1443</u> | Sampling Date: <u>12/2/14</u> |
| Sample I.D.: <u>MW-13 - 12022014</u> | Laboratory: <u>Lancaster</u> |
| Analyzed for: <input checked="" type="checkbox"/> TPH-C <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MIBE <input type="checkbox"/> TPH-D | Other: <u>See COC</u> |
| Equipment Blank I.D.: _____ @ _____ Time | Duplicate I.D.: _____ |

WELLHEAD INSPECTION FORM

Client: Arcadis Site: 19918 68th Ave S. Kent WA Date: 12/02/14
 Job #: 141202-CPI Technician: C Peters Page 1 of 1

| Well ID | Well Inspected - No Corrective Action Required | Check indicates deficiency | | | | | | | | | | 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) | | |
|---------|--|----------------------------|---------------------|--------------|--------------------------|--------------------------|------------------------|-------------------------|---------------|------------------|-------------|---------------------------------------|--|-------------|--------------------------|
| | | 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) |
| 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 | | | | | | | | | | | | | | |
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NOTES: _____

TASK ORDER SHEET (TOS)

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|-----------------------|---|----------------------|------------------------|
| Client: | BP/ARCO | ARCADIS Proj No: | GP09BPNAWA39 |
| ARCADIS PM: | Richard Rodriguez | Lab Release No.: | |
| Client Facility No: | BP ARCO 5544 | Project Lab | Lancaster Laboratories |
| Site Contact/Tel# | NA | | Lancaster, PA |
| Street Address: | 19918 68th Ave., S, Kenty, WA | | |
| Fieldwork Dates: | 12/2/2014 | Facility/Field Hours | dawn to dusk |
| Description of Tasks: | Gauging and Low-Flow Groundwater Sampling | | |

Pre-Mob Checklist

- Take Site Field Book and record site activities in the field book
- Check to see that equipment is operating properly prior to leaving office
- At minimum, take all equipment listed in the equipment required checklist shown below. Feel free to take additional equipment
- Review HASP, Update all JLAs as deemed necessary (whenever changing conditions observed)

Onsite Checklist:

Groundwater Monitoring

- Review and sign HASP - conduct tailgate safety meeting
- Walk site and report any unusual situations (ie drums)
- Review Task Order and ensure tasks listed are completed
- Check well heads and vaults for damage, staining, spills, or other issues.
- Collect PID readings and gauge wells.
- Collect no-purge samples from wells.
- Coordinate Sample delivery with Lancaster.

Pre-Departure Checklist:

- Ensure well plugs and replaced and vaults are secured.
- Decontaminate tools and equipment.
- Store and secure tools, equipment, and supplies for travel.
- Ensure gauging and sampling forms are accurate and completed.
- Ensure chain of custody is accurate and complete.
- Ensure bill of lading is accurate and complete.
- If drum was used, ensure drum bung/lid is secured, drum is properly labeled, and drum inventory is completed.
- Walk around vehicle and site and inspect for forgotten or unsecured items.

Decon Procedures: Standard

Equipment Required:

| | | |
|---|--|---|
| <input checked="" type="checkbox"/> YSI/Horiba/Myron | <input checked="" type="checkbox"/> Generator (small) | <input checked="" type="checkbox"/> PPE |
| <input checked="" type="checkbox"/> CAMERA (Digital) w/ Charger | <input checked="" type="checkbox"/> First Aid Kit w/ Eyewash | <input checked="" type="checkbox"/> PE & Silicon Tubing |
| <input type="checkbox"/> Electronic Water Level Meter | <input checked="" type="checkbox"/> Absorbent Pads | <input type="checkbox"/> Summa Canisters |
| <input checked="" type="checkbox"/> DISPOSABLE GLOVES | <input type="checkbox"/> Battery Packs | <input type="checkbox"/> Absorbent Socks |
| <input checked="" type="checkbox"/> Oil-Water Interface Probe | <input type="checkbox"/> Metal Detector | <input checked="" type="checkbox"/> Decon supplies |
| <input checked="" type="checkbox"/> Disposable Bailers | <input checked="" type="checkbox"/> Traffic Control-Cones | <input type="checkbox"/> Garden Cart |
| <input checked="" type="checkbox"/> String or line | <input type="checkbox"/> Locks | <input type="checkbox"/> Vacuum Gauges |
| <input checked="" type="checkbox"/> Secondary containment for samples | <input checked="" type="checkbox"/> Peristaltic Pump | <input checked="" type="checkbox"/> Water Level Meter |
| <input checked="" type="checkbox"/> PID | <input checked="" type="checkbox"/> Fire Extinguisher | <input type="checkbox"/> WELL CAPS 2" |

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|-----------------------------|----------------------------------|------------------------|
| Name <i>Craig Peters</i> | Signature <i>Craig Peters</i> | Date <i>12/2/14</i> |
|-----------------------------|----------------------------------|------------------------|

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

| | | | | | |
|---|--|--|----------------------------|--|-----------------------|
| Section A Requested Client Information: | | Section B Requested Project Information: | | Section C Invoice Information: | |
| Company: ARCADIS | Address: 1100 Olive Way Suite 800 Seattle, WA 98101 | Report To: Samuel Miles | Copy To: Richard Rodriguez | Attention: Richard Rodriguez | Company Name: ARCADIS |
| Email To: Samuel.Miles@arcadis-us.com | Phone: 206-726-4720 Fax 206-325-8218 | Client Project ID: ARCO 5544 | Purchase Order No: | Address: 1100 Olive Way Suite 800, Seattle, WA | Regulatory Agency: |
| Requested Due Date/TAT: 10 Day (Default) | | Project Number: GP098PNA-WA39 | | Lancaster Project Manager: Natalie Luchant | State/Location: WA |
| | | | | Lancaster Profile: | |

| ITEM# | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED | | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives | | | | | | | Analyses Test | Requested Analysis Filtered (Y/N) | Residual Chlorine (Y/N) | SAMPLE CONDITIONS | |
|-------|---------------------------------------|-----------------------------|------------|----------|---------------------------|-----------------|---------------|------|-----|------|---------|----------|-------|---------------|-----------------------------------|-------------------------|-------------------|-------------|
| | | | START DATE | END DATE | | | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | | | | | Unpreserved |
| 1 | MW-2(12022014) | WT | 12/2/14 | 12:34 | | 12 | | | | | | | | | | | | |
| 2 | MW-5(12022014) | WT | 12/2/14 | 13:25 | | 12 | | | | | | | | | | | | |
| 3 | MW-6(12022014) | WT | 12/2/14 | 11:25 | | 12 | | | | | | | | | | | | |
| 4 | MW-1(12022014) | WT | 12/2/14 | 15:16 | | 12 | | | | | | | | | | | | |
| 5 | MW-12(12022014) | WT | 12/2/14 | 14:09 | | 12 | | | | | | | | | | | | |
| 6 | MW-13(12022014) | WT | 12/2/14 | 14:43 | | 12 | | | | | | | | | | | | |
| 7 | BD-5544(12022014) | WT | | | | 12 | | | | | | | | | | | | |
| 8 | TB-5544(12022014) | WT | | | | 12 | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | |

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|--|--|----------------------|------|---------------------------------------|------|------|-----------|-----------------------|-----------------------------|----------------------|--|
| REQUISISHED BY / AFFILIATION <i>Greg Pat</i> | | DATE 12/2/14 | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) | |
| SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: <i>Greg Pat</i> | | DATE Signed: 12/2/14 | | SIGNATURE of SAMPLER: <i>Greg Pat</i> | | | | | | | |

****ON HOLD - Contact Arcadis for instructions**

WELL GAUGING DATA

Project # 140805-C81 Date 8/5/14 Client Arcadis

Site 19918 68th 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 | VOC Notes |
|---------|------|-----------------|--------------|----------------------------------|--------------------------------------|------------------------------------|----------------------|----------------------------|--------------------------|-----------|
| MW-1 | 0720 | 2 | | | | | 9.05 | 19.08 | | 0.0 |
| MW-2 | 0730 | 2 | | | | | 10.04 | 18.79 | | .7 |
| MW-3 | 0740 | 2 | | | | | 9.57 | 19.05 | | .1 |
| MW-4 | 0745 | 2 | | | | | 9.93 | 19.29 | | .1 |
| MW-5 | 0753 | 2 | | | | | 10.35 | 18.88 | | .1 |
| MW-6 | 0800 | 2 | | | | | 10.31 | 18.55 | | 25.1 |
| MW-9 | 0805 | 2 | | | | | 9.71 | 18.14 | | 0.0 |
| MW-10 | 0812 | 2 | | | | | 9.85 | 18.73 | | .5 |
| MW-11 | 0820 | 2 | | | | | 9.82 | 19.25 | | .2 |
| MW-12 | 0824 | 2 | | | | | 10.25 | 20.21 | | 1.0 |
| MW-13 | 0835 | 2 | | | | | 10.21 | 19.81 | √ | 3.4 |
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LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------------------|---|
| Project #: <u>140805-CPI</u> | Client: <u>Avcoad's</u> |
| Sampler: <u>CP</u> | Gauging Date: <u>8/5/14</u> |
| Well I.D.: <u>MW-2</u> | Well Diameter (in.): <u>(2)</u> 3 4 6 8 |
| Total Well Depth (ft.): <u>18.79</u> | Depth to Water (ft.): <u>10.04</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: <u>VST 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0902 Flow Rate: 100 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.) |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|-------------------------|
| 0905 | 19.20 | 6.36 | 838 | 17 | 1.61 | 173.8 | 300 | 10.58 |
| 0908 | 18.99 | 6.22 | 827 | 18 | 1.24 | 174.6 | 600 | 10.60 |
| 0911 | 19.13 | 6.16 | 830 | 13 | 1.18 | 169.2 | 900 | 10.02 |
| 0914 | 19.23 | 6.13 | 834 | 12 | .86 | 165.3 | 1200 | 10.62 |
| 0917 | 19.27 | 6.10 | 839 | 11 | 1.60 | 163.2 | 1500 | 10.63 |
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| Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Amount actually evacuated: <u>1.5L</u> |
| Sampling Time: <u>0920</u> | Sampling Date: <u>8/5/14</u> |
| Sample I.D.: <u>MW-2-08052014</u> | Laboratory: <u>Lancaster</u> |
| Analyzed for: <input checked="" type="checkbox"/> TPH-G <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MTBE <input type="checkbox"/> TPH-D | Other: <u>See COC</u> |
| Equipment Blank I.D.: _____ @ _____ Time | Duplicate I.D.: <u>BD-5544-08052014</u> |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------------------|---|
| Project #: <u>140805-CP1</u> | Client: <u>Acadix</u> |
| Sampler: <u>CP</u> | Gauging Date: <u>8/5/14</u> |
| Well I.D.: <u>MW-5</u> | Well Diameter (in.): <u>(2)</u> 3 4 6 8 |
| Total Well Depth (ft.): <u>18.88</u> | Depth to Water (ft.): <u>10.35</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0955 Flow Rate: 100 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.) |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|-------------------------|
| 0958 | 18.27 | 6.03 | 703 | 150 | 1.24 | 239.8 | 300 | 10.51 |
| 1001 | 18.33 | 6.02 | 774 | 148 | 1.41 | 242.2 | 600 | 10.51 |
| 1004 | 18.41 | 6.03 | 786 | 147 | 1.66 | 244.4 | 900 | 10.53 |
| 1007 | 18.32 | 6.03 | 794 | 145 | 2.01 | 243.8 | 1200 | 10.58 |
| 1010 | 17.79 | 6.04 | 804 | 135 | 1.71 | 241.3 | 1500 | 10.72 |
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Did well dewater? Yes No Amount actually evacuated: 1.5L

Sampling Time: 1012 Sampling Date: 8/5/14

Sample I.D.: MW-5-08052014 Laboratory: Lancaster

Analyzed for: TPA-C BTEX MTBE TPH-D Other: see coc

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

LOW FLOW WELL MONITORING DATA SHEET

| | |
|--------------------------------------|---|
| Project #: <u>140805-CP1</u> | Client: <u>Acadix</u> |
| Sampler: <u>CP</u> | Gauging Date: <u>8/5/14</u> |
| Well I.D.: <u>MW-6</u> | Well Diameter (in.): <u>(2)</u> 3 4 6 8 |
| Total Well Depth (ft.): <u>18.55</u> | Depth to Water (ft.): <u>10.31</u> |
| Depth to Free Product: <u>.</u> | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1043 Flow Rate: 100 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.) |
|------|--------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|-------------------------|
| 1046 | 19.07 | 6.21 | 1029 | 20 | 1.71 | 287.1 | 300 | 10.64 |
| 1049 | 18.87 | 6.22 | 1030 | 7 | 1.50 | 277.8 | 600 | 10.73 |
| 1052 | 18.88 | 6.23 | 1030 | 5 | 1.41 | 270.3 | 900 | 10.73 |
| 1055 | 18.83 | 6.24 | 1031 | 5 | 1.84 | 263.8 | 1200 | 10.76 |
| 1058 | 18.77 | 6.24 | 1030 | 5 | 1.75 | 262.4 | 1500 | 10.80 |
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Did well dewater? Yes (No) Amount actually evacuated: 1.5 L
 Sampling Time: 1100 Sampling Date: 8/5/14
 Sample I.D.: MW-6-08052014 Laboratory: Lancaster
 Analyzed for: TPH BTEX MIB TPH-D Other: See COC
 Equipment Blank I.D.: _____ @ _____ Time Duplicate I.D.: _____

WELL DEVELOPMENT DATA SHEET

| | |
|---|--|
| Project #: <u>140805-CP1</u> | Client: <u>Arcadis</u> |
| Developer: <u>CP</u> | Date Developed: <u>8/6/14</u> |
| Well I.D. <u>MW-11</u> | Well Diameter: (circle one) <u>(2)</u> 3 4 6 |
| Total Well Depth: Before <u>19.25</u> After <u>19.45</u> | Depth to Water: Before <u>9.82</u> After <u>10.25</u> |
| Reason not developed: | If Free Product, thickness: |
| Additional Notations: | |

Volume Conversion Factor (VCF):
 $\{12 \times (d^2/4) \times \pi\} / 231$
 where
 12 = in / foot
 d = diameter (in.)
 $\pi = 3.1416$
 231 = in³/gal

| Well dia. | VCF |
|-----------|------|
| 2" = | 0.16 |
| 3" = | 0.37 |
| 4" = | 0.65 |
| 6" = | 1.47 |
| 10" = | 4.08 |
| 12" = | 6.87 |

| | | | | |
|---------------|---|-------------------|---|-----------|
| <u>1.5</u> | X | <u>10</u> | = | <u>15</u> |
| 1 Case Volume | | Specified Volumes | | gallons |

Purging Device: Bailer Electric Submersible
 Middleburg Suction Pump

Type of Installed Pump _____
 Other equipment used _____

| TIME | TEMP (F) | pH | Cond. (mS or μ S) | TURBIDITY (NTUs) | VOLUME REMOVED: | NOTATIONS: |
|-------------------------------------|----------|---------------------|--------------------------|-----------------------------|--------------------|---------------------------------------|
| - surged well for 15 min w/ 2" swab | | | | | | |
| 0950 | 62.0 | 6.29 | 823.9 | 71000 | 1.5 | Dark grey |
| 0952 | 61.5 | 6.35 | 857.6 | 71000 | 3.0 | agitated well bottom w/pump Dark grey |
| 0954 | 60.7 | 6.36 | 904.8 | 71000 | 4.5 | Dark grey |
| 0956 | 61.6 | 6.53 | 870.6 | 71000 | 6.0 | agitated well bottom w/pump Dark grey |
| 0958 | 62.3 | 6.50 | 956.1 | 71000 | 7.5 | Dark grey |
| 1000 | 62.3 | 6.57 | 962.7 | 71000 | 9.0 | agitated well bottom w/pump Dark grey |
| 1002 | 62.3 | 6.59 | 938.5 | 71000 | 10.5 | Dark grey |
| 1004 | 62.2 | 6.62 | 995.1 | 71000 | 12.0 | agitated well bottom w/pump Dark grey |
| 1006 | 61.8 | 6.63 | 1016 | 71000 | 13.5 | Dark grey |
| 1008 | 61.7 | 6.65 | 1007 | 71000 | 15.0 | Dark grey |
| | | | | | | |
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| Did Well Dewater? <u>NO</u> | | If yes, note above. | | Gallons Actually Evacuated: | | |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------------------|---|
| Project #: <u>140805-01</u> | Client: <u>Arcadis</u> |
| Sampler: <u>CP</u> | Gauging Date: <u>8/7/14</u> |
| Well I.D.: <u>MW-11</u> | Well Diameter (in.): <u>Ø</u> 3 4 6 8 _____ |
| Total Well Depth (ft.): <u>19.25</u> | Depth to Water (ft.): <u>9.82</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>P/C</u> Grade | Flow Cell Type: <u>VSF 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1023 Flow Rate: 100 mL/min Pump Depth: 12'

| 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.) |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|-------------------------|
| 1026 | 17.71 | 6.25 | 728 | 71000 | 19.49 | 474.3 | 300 | 10.03 |
| 1029 | 18.04 | 6.22 | 728 | 71000 | 14.14 | 461.9 | 600 | 10.03 |
| 1032 | 18.08 | 6.18 | 738 | 71000 | 11.11 | 431.8 | 900 | 10.03 |
| 1035 | 17.94 | 6.17 | 754 | 71000 | 10.05 | 412.2 | 1200 | 9.98 |
| 1038 | 17.87 | 6.16 | 769 | 71000 | 8.37 | 405.3 | 1500 | 9.98 |
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|---|--|
| Did well dewater? Yes <u>No</u> | Amount actually evacuated: <u>1.5L</u> |
| Sampling Time: <u>1040</u> | Sampling Date: <u>8/7/14</u> |
| Sample I.D.: <u>MW-11-08072014</u> | Laboratory: <u>Cancaster</u> |
| Analyzed for: <u>TPH-G</u> <u>BTEX</u> <u>MTBE</u> <u>TPH-D</u> | Other: <u>See COS</u> |
| Equipment Blank I.D.: _____ @ _____ Time | Duplicate I.D.: _____ |

WELL DEVELOPMENT DATA SHEET

| | |
|---|---|
| Project #: <u>140805-0p1</u> | Client: <u>Arcoad:5</u> |
| Developer: <u>CP</u> | Date Developed: <u>8/6/14</u> |
| Well I.D. <u>MW-13</u> | Well Diameter: (circle one) <u>(2)</u> 3 4 6 |
| Total Well Depth: Before <u>19.81</u> After <u>20.15</u> | Depth to Water: Before <u>10.21</u> After <u>13.32</u> |
| Reason not developed: | If Free Product, thickness: |
| Additional Notations: | |

Volume Conversion Factor (VCF):
 $\{12 \times (d^2/4) \times \pi\} / 231$
 where
 12 = in / foot
 d = diameter (in.)
 $\pi = 3.1416$
 231 = in³/gal

| Well dia. | VCF |
|-----------|------|
| 2" = | 0.16 |
| 3" = | 0.37 |
| 4" = | 0.65 |
| 6" = | 1.47 |
| 10" = | 4.08 |
| 12" = | 6.87 |

| | | | | |
|---------------|---|-------------------|---|-----------|
| <u>1.5</u> | X | <u>10</u> | = | <u>15</u> |
| 1 Case Volume | | Specified Volumes | | gallons |

Purging Device: Bailer Electric Submersible
 Middleburg Suction Pump

Type of Installed Pump _____
 Other equipment used _____

| TIME | TEMP (F) | pH | Cond. (mS or μ S) | TURBIDITY (NTUs) | VOLUME REMOVED: | NOTATIONS: |
|--|-------------|---------------------|--------------------------|-----------------------------|--------------------|--|
| <u>- surged well for 15 min w/ 2" swab</u> | | | | | | |
| <u>0635</u> | <u>63.1</u> | <u>7.85</u> | <u>817.4</u> | <u>71000</u> | <u>1.5</u> | <u>Dark grey</u> |
| <u>0638</u> | <u>61.9</u> | <u>7.81</u> | <u>897.1</u> | <u>71000</u> | <u>3.0</u> | <u>agitated well bottom w/pump Dark grey</u> |
| <u>0641</u> | <u>61.2</u> | <u>7.69</u> | <u>689.7</u> | <u>71000</u> | <u>4.5</u> | <u>Dark grey</u> |
| <u>0644</u> | <u>60.6</u> | <u>7.61</u> | <u>612.2</u> | <u>71000</u> | <u>6.0</u> | <u>agitated well bottom w/pump Dark grey</u> |
| <u>0647</u> | <u>60.2</u> | <u>7.52</u> | <u>426.2</u> | <u>71000</u> | <u>7.5</u> | <u>Dark grey</u> |
| <u>0650</u> | <u>60.0</u> | <u>7.45</u> | <u>399.7</u> | <u>71000</u> | <u>9.0</u> | <u>agitated well bottom w/pump Dark grey</u> |
| <u>0653</u> | <u>59.9</u> | <u>7.38</u> | <u>424.2</u> | <u>71000</u> | <u>10.5</u> | <u>Dark grey</u> |
| <u>0656</u> | <u>59.9</u> | <u>7.35</u> | <u>397.1</u> | <u>71000</u> | <u>12.0</u> | <u>agitated well bottom w/pump Dark grey</u> |
| <u>0659</u> | <u>59.9</u> | <u>7.27</u> | <u>416.9</u> | <u>71000</u> | <u>13.5</u> | <u>Dark grey</u> |
| <u>0702</u> | <u>59.9</u> | <u>7.21</u> | <u>400.3</u> | <u>71000</u> | <u>15.0</u> | <u>Dark grey</u> |
| | | | | | | |
| | | | | | | |
| Did Well Dewater? <u>no</u> | | If yes, note above. | | Gallons Actually Evacuated: | | |

LOW FLOW WELL MONITORING DATA SHEET

| | |
|--------------------------------------|---|
| Project #: <u>140805-CPI</u> | Client: <u>Arcadic</u> |
| Sampler: <u>CP</u> | Gauging Date: <u>8/7/14</u> |
| Well I.D.: <u>MW-13</u> | Well Diameter (in.): <u>(2)</u> 3 4 6 8 |
| Total Well Depth (ft.): <u>20.15</u> | Depth to Water (ft.): <u>10.21</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVS</u> Grade | Flow Cell Type: <u>VSF 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0731 Flow Rate: 100 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.) |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|-------------------------|
| 0734 | 16.73 | 5.93 | 349 | >1000 | 3.47 | 211.7 | 300 | 11.45 |
| 0737 | 16.70 | 5.61 | 353 | >1000 | 3.59 | 235.6 | 600 | 11.40 |
| 0740 | 16.94 | 5.51 | 352 | >1000 | 3.63 | 245.8 | 900 | 11.40 |
| 0743 | 17.01 | 5.49 | 354 | >1000 | 4.52 | 251.4 | 1200 | 11.55 |
| 0746 | 16.76 | 5.64 | 355 | 904 | 9.60 | 264.1 | 1500 | 11.60 |
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| Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Amount actually evacuated: <u>1.5L</u> |
| Sampling Time: <u>0749</u> | Sampling Date: <u>8/7/14</u> |
| Sample I.D.: <u>MW-13-08072014</u> | Laboratory: <u>Lancaster</u> |
| Analyzed for: <input checked="" type="checkbox"/> TPH-G <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MIBE <input type="checkbox"/> TPH-D | Other: <u>Seeco</u> |
| Equipment Blank I.D.: _____ @ _____ Time | Duplicate I.D.: _____ |

WELL DEVELOPMENT DATA SHEET

| | |
|---|---|
| Project #: 140805-CPI | Client: Arcadio |
| Developer: CP | Date Developed: 8/6/14 |
| Well I.D. MW-12 | Well Diameter: (circle one) ② 3 4 6 |
| Total Well Depth: Before 20.21 After 20.22 | Depth to Water: Before 10.25 After 13.75 |
| Reason not developed: | If Free Product, thickness: |
| Additional Notations: | |

Volume Conversion Factor (VCF):
 $\{12 \times (d^2/4) \times \pi\} / 231$
 where
 12 = in / foot
 d = diameter (in.)
 $\pi = 3.1416$
 231 = in³/gal

| Well dia. | VCF |
|-----------|------|
| 2" = | 0.16 |
| 3" = | 0.37 |
| 4" = | 0.65 |
| 6" = | 1.47 |
| 10" = | 4.08 |
| 12" = | 6.87 |

| | | | | |
|---------------|---|-------------------|---|-----------|
| <u>2.0</u> | X | <u>10</u> | = | <u>20</u> |
| 1 Case Volume | | Specified Volumes | | gallons |

Purging Device: Bailer Electric Submersible
 Middleburg Suction Pump

Type of Installed Pump _____
 Other equipment used _____

| TIME | TEMP (F) | pH | Cond. (mS or μ S) | TURBIDITY (NTUs) | VOLUME REMOVED: | NOTATIONS: |
|-------------------------------------|----------|---------------------|--------------------------|-----------------------------|--------------------|--|
| - surged well for 15 min w/ 2" swab | | | | | | |
| 0820 | 61.4 | 6.59 | 1031 | >1000 | 2.0 | Dark Grey |
| 0822 | 60.7 | 6.74 | 787.7 | >1000 | 4.0 | agitated well bottom w/ pump Dark Grey |
| 0824 | 60.0 | 6.67 | 843.5 | >1000 | 6.0 | Dark Grey |
| 0826 | 59.6 | 6.63 | 793.2 | >1000 | 8.0 | agitated well bottom w/ pump Dark grey |
| 0828 | 59.3 | 6.61 | 778.4 | >1000 | 10.0 | Dark Grey |
| 0830 | 59.1 | 6.61 | 777.4 | >1000 | 12.0 | agitated well bottom w/ pump Dark grey |
| 0832 | 59.0 | 6.58 | 782.0 | >1000 | 14.0 | Dark Grey |
| 0834 | 59.0 | 6.55 | 767.7 | >1000 | 16.0 | agitated well bottom w/ pump Dark grey |
| 0836 | 59.0 | 6.50 | 764.5 | >1000 | 18.0 | Dark grey |
| 0838 | 58.9 | 6.46 | 785.6 | >1000 | 20.0 | Dark grey |
| | | | | | | |
| | | | | | | |
| Did Well Dewater? NO | | If yes, note above. | | Gallons Actually Evacuated: | | |

LOW FLOW WELL MONITORING DATA SHEET

| | |
|--------------------------------------|---|
| Project #: <u>140805-CPI</u> | Client: <u>Arcadis</u> |
| Sampler: <u>CP</u> | Gauging Date: <u>8/7/14</u> |
| Well I.D.: <u>MW-12</u> | Well Diameter (in.): <u>(2)</u> 3 4 6 8 |
| Total Well Depth (ft.): <u>20.22</u> | Depth to Water (ft.): <u>10.25</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVO</u> Grade | Flow Cell Type: <u>4CE 556</u> |

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

Start Purge Time: 0853 Flow Rate: 100 ml/min Pump Depth: 12'

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or <u>ml</u>) | Depth to Water (ft.) |
|-------------|---------------------|-------------|------------------------------|---------------------|----------------|--------------|--|-------------------------|
| <u>0856</u> | <u>16.06</u> | <u>5.76</u> | <u>772</u> | <u>>1000</u> | <u>4.74</u> | <u>479.9</u> | <u>300</u> | <u>11.10</u> |
| <u>0859</u> | <u>16.08</u> | <u>5.81</u> | <u>778</u> | <u>>1000</u> | <u>50.60</u> | <u>450.6</u> | <u>600</u> | <u>10.98</u> |
| <u>0902</u> | <u>16.09</u> | <u>5.84</u> | <u>780</u> | <u>>1000</u> | <u>41.51</u> | <u>447.1</u> | <u>900</u> | <u>10.89</u> |
| <u>0905</u> | <u>16.08</u> | <u>5.86</u> | <u>780</u> | <u>>1000</u> | <u>33.13</u> | <u>427.2</u> | <u>1200</u> | <u>10.85</u> |
| <u>0908</u> | <u>16.07</u> | <u>5.87</u> | <u>779</u> | <u>923</u> | <u>25.04</u> | <u>417.9</u> | <u>1500</u> | <u>10.80</u> |
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| Did well dewater? Yes <u>No</u> | Amount actually evacuated: <u>1.5L</u> |
| Sampling Time: <u>0910</u> | Sampling Date: <u>8/7/14</u> |
| Sample I.D.: <u>MW-12-08072014</u> | Laboratory: <u>Lancaster</u> |
| Analyzed for: <u>TPH-G</u> <u>BTEX</u> <u>MTBE</u> TPH-D | Other: <u>See COC</u> |
| Equipment Blank I.D.: _____ @ _____ Time | Duplicate I.D.: _____ |

WELLHEAD INSPECTION FORM

Client: Arcadis Site: 19918 68th Ave S. Kent Date: 8/5/14
 Job #: 140805-CR1 Technician: CP Page 1 of 1

| Well ID | Well Inspected - No Corrective Action Required | Check indicates deficiency | | | | | | | | | | | Well Not Inspected (explain in notes) | Notes <small>(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)</small> | | |
|---------|--|----------------------------|---------------------|--------------|--------------------------|--------------------------|------------------------|-------------------------|---------------|------------------|-------------|-------------|---------------------------------------|---|--------------------------|--|
| | | 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) | |
| MW-1 | X | | | | | | | | | | | | | | | |
| MW-2 | X | | | | | | | | | | | | | | | |
| MW-3 | X | | | | | | | | | | | | | | | |
| MW-4 | X | | | | | | | | | | | | | | | |
| MW-5 | X | | | | | | | | | | | | | | | |
| MW-6 | X | | | | | | | | | | | | | | | |
| MW-9 | X | | | | | | | | | | | | | | | |
| MW-10 | X | | | | | | | | | | | | | | | |
| MW-11 | X | | | | | | | | | | | | | | | |
| MW-12 | X | | | | | | | | | | | | | | | |
| MW-13 | X | | | | | | | | | | | | | | | |
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NOTES: _____

WELL GAUGING DATA

Project # 140514-JB2 Date 5-14-14 Client Arcadis

Site 19918 68th 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 TOB | VOC Notes |
|---------|------|-----------------|--------------|----------------------------------|--------------------------------------|------------------------------------|----------------------|----------------------------|-------------------------------------|-----------|
| mw-1 | 1148 | 2" | | | | | 7.51 | 19.08 | | 0.1 |
| mw-2 | 1157 | 2" | | | | | 7.98 | 18.79 | | 0.1 |
| mw-3 | 1204 | 2" | | | | | 7.39 | 19.05 | | 0.0 |
| mw-4 | 1211 | 2" | | | | | 8.41 | 19.29 | | 0.0 |
| mw-5 | 1226 | 2" | | | | | 8.44 | 18.88 | | 0.0 |
| mw-6 | 1235 | 2" | | | | | 8.05 | 18.55 | | 9.1 |
| mw-9 | 1243 | 2" | | | | | 7.84 | 18.14 | | 0.0 |
| mw-10 | 1300 | 2" | | | | | 7.52 | 18.73 | | 0.0 |
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LOW FLOW WELL MONITORING DATA SHEET

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|-------------------------------|-------------------------------------|
| Project #: 140514-JB2 | Client: Arcadis |
| Sampler: J. Blackburn | Gauging Date: 5-14-14 |
| Well I.D.: mw-2 | Well Diameter (in.): (2) 3 4 6 8 |
| Total Well Depth (ft.): 18.79 | Depth to Water (ft.): 7.98 |
| Depth to Free Product: — | Thickness of Free Product (feet): — |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump ; Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1337 Flow Rate: 200 m Pump Depth: 11 ft

| 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.) |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|-------------------------|
| 1340 | 17.91 | 5.59 | 1054 | 50 | 0.88 | 137.7 | 600 | 8.39 |
| 1343 | 17.86 | 5.52 | 1062 | 63 | 0.52 | 134.6 | 1200 | 8.49 |
| 1346 | 18.11 | 5.59 | 1083 | 51 | 0.51 | 128.1 | 1800 | 8.59 |
| 1349 | 18.14 | 5.67 | 1099 | 42 | 0.50 | 122.0 | 2400 | 8.68 |
| 1352 | 18.15 | 5.72 | 1109 | 40 | 0.42 | 119.9 | 3000 | 8.78 |
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|---|----------------------------------|
| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: 3L |
| Sampling Time: 1400 | Sampling Date: 5-14-14 |
| Sample I.D.: mw-2-05142014 | Laboratory: Lancaster |
| Analyzed for: TRLO BTEX MTBE TPH-D | Other: see COC |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: 30-5544-05142014 |

LOW FLOW WELL MONITORING DATA SHEET

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|---------------------------------|-------------------------------------|
| Project #: 140514-JBZ | Client: Arcadis |
| Sampler: J. Blackburn | Gauging Date: 5-14-14 |
| Well I.D.: mw-5 | Well Diameter (in.): ② 3 4 6 8 |
| Total Well Depth (ft.): 18.88 | Depth to Water (ft.): 8.44 |
| Depth to Free Product: — | Thickness of Free Product (feet): — |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1420 Flow Rate: 200 ml Pump Depth: 12 ft

| Time | Temp. (<u>°C</u> or °F) | pH | Cond. (mS/cm or <u>µS/cm</u>) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or <u>ml</u>) | Depth to Water (ft.) |
|------|-----------------------------|------|-----------------------------------|---------------------|----------------|-------------|--|-------------------------|
| 1423 | 15.81 | 5.69 | 1045 | 146 | 1.33 | 126.1 | 600 | 8.94 |
| 1426 | 15.87 | 5.57 | 1077 | 145 | 0.61 | 129.4 | 1200 | 8.94 |
| 1429 | 15.85 | 5.57 | 1108 | 142 | 0.43 | 127.0 | 1800 | 8.94 |
| 1432 | 16.43 | 5.66 | 1135 | 140 | 0.64 | 118.0 | 2400 | 8.94 |
| 1435 | 16.34 | 5.72 | 1144 | 138 | 0.58 | 115.9 | 3000 | 8.99 |
| 1438 | 16.42 | 5.77 | 1149 | 135 | 0.63 | 113.4 | 3600 | 8.99 |
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Did well dewater? Yes No Amount actually evacuated: 3.6L
 Sampling Time: 1445 Sampling Date: 5-14-14
 Sample I.D.: mw-5-05142014 Laboratory: Lancaster
 Analyzed for: TPH-G BTEX MTBE TPH-D Other: See COC
 Equipment Blank I.D.: @ Time Duplicate I.D.: _____

LOW FLOW WELL MONITORING DATA SHEET

| | |
|--|--|
| Project #: 140514-JBZ | Client: Arcadis |
| Sampler: J. Blackburn | Gauging Date: 5-14-14 |
| Well I.D.: mw-6 | Well Diameter (in.): <input checked="" type="radio"/> 2 3 4 6 8 ___ |
| Total Well Depth (ft.): 18.55 | Depth to Water (ft.): 8.05 |
| Depth to Free Product: — | Thickness of Free Product (feet): — |
| Referenced to: <input checked="" type="radio"/> PVO Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1456 Flow Rate: 200 ml Pump Depth: 12 ft

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or <u>µS/cm</u>) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to Water (ft.) |
|------|---------------------|------|-----------------------------------|---------------------|----------------|-------------|--------------------------------|-------------------------|
| 1459 | 18.41 | 6.22 | 1915 | 18 | 0.32 | 92.8 | 600 | 8.43 |
| 1502 | 18.28 | 6.14 | 1930 | 5 | 0.25 | 87.0 | 1200 | 8.53 |
| 1505 | 18.24 | 6.11 | 1936 | 4 | 0.25 | 76.0 | 1800 | 8.56 |
| 1508 | 18.34 | 6.14 | 1938 | 3 | 0.26 | 61.2 | 2400 | 8.60 |
| 1511 | 18.40 | 6.18 | 1940 | 3 | 0.19 | 58.4 | 3000 | 8.63 |
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|--|--------------------------------|
| Did well dewater? Yes <input checked="" type="radio"/> No | Amount actually evacuated: 3 L |
| Sampling Time: 1518 | Sampling Date: 5-14-14 |
| Sample I.D.: mw-6-05142014 | Laboratory: Lancaster |
| Analyzed for: <input checked="" type="checkbox"/> TPH-G <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MTBE <input type="checkbox"/> TPH-D | Other: See Col |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

WELLHEAD INSPECTION FORM

Client: Accadis Site: 19918 68th Ave S Date: 5-14-14
 Job #: 140514-JBZ Technician: Justin Blackburn Page 1 of 1

| Well ID | Well Inspected - No Corrective Action Required | Check indicates deficiency | | | | | | | | | | Well Not Inspected (explain in notes) | Notes <small>(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)</small> | | |
|--------------|--|----------------------------|---------------------|--------------|--------------------------|--------------------------|------------------------|-------------------------|---------------|------------------|-------------|---------------------------------------|---|-------------|--------------------------|
| | | 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) |
| <u>mw-1</u> | <u>X</u> | | | | | | | | | | | | | | |
| <u>mw-2</u> | <u>X</u> | | | | | | | | | | | | | | |
| <u>mw-3</u> | <u>X</u> | | | | | | | | | | | | | | |
| <u>mw-4</u> | <u>X</u> | | | | | | | | | | | | | | |
| <u>mw-5</u> | <u>X</u> | | | | | | | | | | | | | | |
| <u>mw-6</u> | <u>X</u> | | | | | | | | | | | | | | |
| <u>mw-9</u> | <u>X</u> | | | | | | | | | | | | | | |
| <u>mw-10</u> | <u>X</u> | | | | | | | | | | | | | | |
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NOTES: _____

ARCADIS Groundwater Sampling Form

Page of

Project No. GP09BPNA.WA39 N0000 Well ID MW-2

Date 2/12/2014

Project Name/Locator Former ARCO 5544 / 19918 68th Ave South, Kent, WA

Weather Clear

Measuring Pt. TOC Screen Setting (ft-bmp) - Casing Diameter (in.) 2

Well Material PVC SS

Static Water Level (ft-btoc) 9.25 Total Depth (ft-btoc) 18.83 Water Column/ Gallons in Well

Initial PID Reading (ppm) 0.0

TOC Elevation - Pump Intake (ft-btoc) Purge Method: LFP

Sample Method Grab

Pump On/Off 1225 Volumes Purged ~1.0 gal Centrifugal Submersible Other

Sample Time: Label 1245 Replicate/ Code No.
Start
End

Sampled by RwL

| Time | Minutes Elapsed | Rate (gpm) (mL/min) | Depth to Water (ft) | Gallons Purged | pH | Cond. (µMhos) (mS/cm) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Temp. (°F) | Redox (mV) | Appearance | |
|----------------------------------|-----------------|---------------------|---------------------|----------------|------|-----------------------|-----------------|-------------------------|------------|------------|------------|------|
| | | | | | | | | | | | Color | Odor |
| 1230 | 0 | 200 | 8.99 | - | 6.68 | 719 | - | 0.86 | 15.8 | 212.0 | clear | - |
| 1233 | 3 | | | | 6.67 | 717 | - | 0.43 | 15.9 | 212.0 | 1 | 1 |
| 1236 | 6 | | | | 6.66 | 712 | - | 0.39 | 15.9 | 212.0 | 1 | 1 |
| 1239 | 9 | | | | 6.67 | 711 | - | 0.37 | 15.9 | 212.0 | 1 | 1 |
| 1242 | 12 | | 9.70 | | 6.66 | 711 | - | 0.37 | 16.0 | 211.8 | 1 | 1 |
| SAMPLE @ 1245 1245 | | | | | | | | | | | | |

| Constituents Sampled | Container | Number | Preservative |
|----------------------|-------------|--------|--------------|
| GRO/BTEX | Voa | 6 | HCL |
| T-Pb | 250 ml Poly | 1 | HNO3 |
| D-Pb | 250 ml Poly | 1 | Unpreserved |
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Well Casing Volumes

| | | | | | |
|--------------|--------------|-------------|-------------|-------------|-----------|
| Gallons/Foot | 1" = 0.04 | 1.5" = 0.09 | 2.5" = 0.26 | 3.5" = 0.50 | 6" = 1.47 |
| | 1.25" = 0.06 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | |

Well Information

| | |
|--|--|
| Well Location: <u>SE Pump</u> | Well Locked at Arrival: Yes / <input checked="" type="checkbox"/> No |
| Condition of Well: <u>Good</u> | Well Locked at Departure: Yes / <input checked="" type="checkbox"/> No |
| Well Completion: <u>Flush Mount / Stick Up</u> | Key Number To Well: <u> </u> |

ARCADIS Groundwater Sampling Form

Page of

Project No. GP09BPNA.WA39 N0000

Well ID MW-5

Date 2/12/2014

Project Name/Locator Former ARCO 5544 / 19918 68th Ave South, Kent, WA

Weather Clear

Measuring Pt. TOC Screen Setting (ft-bmp) - Casing Diameter (in.) 2

Well Material X PVC
SS

Static Water Level (ft-btoc) 8.79 Total Depth (ft-btoc) 18.75 Water Column/ Gallons in Well

Initial PID Reading (ppm) 0.0

TOC Elevation Pump Intake (ft-btoc) ~13 Purge Method: LFP

Sample Method Grab

Pump On/Off 1147 Volumes Purged ~1.0 gal Centrifugal Submersible Other

Sample Time: Label 1215 Replicate/ Code No.
Start End

Sampled by RWL

| Time | Minutes Elapsed | Rate (gpm) (mL/min) | Depth to Water (ft) | Gallons Purged | pH | Cond. (µMhos) (mS/cm) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Temp. (°F) | Redox (mV) | Appearance | |
|---------------|-----------------|---------------------|---------------------|----------------|------|-----------------------|-----------------|-------------------------|------------|------------|------------|------|
| | | | | | | | | | | | Color | Odor |
| 1148 | 0 | 200 | 9.73 | | 6.81 | 731 | - | 1.99 | 14.2 | 220.8 | Brown | - |
| 1151 | 3 | | | | 6.59 | 720 | - | 1.00 | 14.3 | 219.2 | 1 | 1 |
| 1154 | 6 | | | | 6.50 | 715 | - | 0.72 | 14.4 | 217.4 | 1 | 1 |
| 1157 | 9 | | | | 6.53 | 713 | - | 0.65 | 14.3 | 216.5 | 1 | 1 |
| 1200 | 12 | | 9.90 | | 6.52 | 710 | - | 0.61 | 14.3 | 215.7 | 1 | 1 |
| SAMPLE @ 1215 | | | | | | | | | | | | |

| Constituents Sampled | Container | Number | Preservative |
|----------------------|-------------|--------|--------------|
| GRO/BTEX | Voa | 6 | HCL |
| T-Pb | 250 ml Poly | 1 | HNO3 |
| D-Pb | 250 ml Poly | 1 | Unpreserved |
| | | | |
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Well Casing Volumes

| | | | | | |
|--------------|--------------|-------------|-------------|-------------|-----------|
| Gallons/Foot | 1" = 0.04 | 1.5" = 0.09 | 2.5" = 0.26 | 3.5" = 0.50 | 6" = 1.47 |
| | 1.25" = 0.06 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | |

Well Information

Well Location: N end pump islands Well Locked at Arrival: Yes / (No)

Condition of Well: and Well Locked at Departure: Yes / (No)

Well Completion: Flush Mount / Stick Up Key Number To Well:

ARCADIS Groundwater Sampling Form

Project No. GP09BPNA.WA39 N0000 Well ID MW-6

Date 2/12/2014

Project Name/Locatiou Former ARCO 5544 / 19918 68th Ave South, Kent, WA Weather Clear

Measuring Pt. TOC Screen Setting (ft-bmp) -- Casing Diameter (in.) 2 Well Material PVC SS

Static Water Level (ft-btoc) 9.14 Total Depth (ft-btoc) 18.50 Water Column/ Gallons in Well _____ Initial PID Reading (ppm) 185

TOC Elevation _____ Pump Intake (ft-btoc) ~14' Purge Method: LFP Sample Method Grab

Pump On/Off 1047 Volumes Purged ~1.4 gal Centrifugal _____ Submersible _____ Other _____

Sample Time: Label 1115 Replicate/ Code No. DUP-1 Start 1045 End _____ Sampled by RwL

| Time | Minutes Elapsed | Rate (gpm) (mL/min) | Depth to Water (ft) | Gallons Purged | pH | Cond. (µMhos) (mS/cm) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Temp. (°F) | Redox (mV) | Appearance | |
|---------------|-----------------|---------------------|---------------------|----------------|------|-----------------------|-----------------|-------------------------|------------|------------|------------|------|
| | | | | | | | | | | | Color | Odor |
| 1048 | - | 200 | 9.20 | - | 6.91 | 105.6 | - | 1.94 | 16.0 | 216.3 | Clear | - |
| 1051 | 3 | | | | 6.59 | 101.6 | - | 0.71 | 16.1 | 213.3 | lt brown | - |
| 1054 | 6 | | | | 6.55 | 99.3 | - | 0.49 | 16.2 | 212.8 | " | - |
| 1057 | 9 | | | | 6.56 | 98.7 | - | 0.47 | 16.2 | 211.5 | " | - |
| 1100 | 12 | | 9.85 | | 6.55 | 98.2 | - | 0.46 | 16.2 | 211.0 | " | - |
| SAMPLE @ 1115 | | | | | | | | | | | | |
| DUP-1 | | | | | | | | | | | | |
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| Constituents Sampled | Container | Number | Preservative |
|----------------------|-------------|--------|--------------|
| GRO/BTEX | Voa | 6 | HCL |
| T-Pb | 250 ml Poly | 1 | HNO3 |
| D-Pb | 250 ml Poly | 1 | Unpreserved |
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Well Casing Volumes

| | | | | | |
|--------------|--------------|-------------|-------------|-------------|-----------|
| Gallons/Foot | 1" = 0.04 | 1.5" = 0.09 | 2.5" = 0.26 | 3.5" = 0.50 | 6" = 1.47 |
| | 1.25" = 0.06 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | |

Well Information

Well Location: SW Pump Well Locked at Arrival: Yes / No

Condition of Well: Good Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up Key Number To Well: _____

Appendix D

**Groundwater Laboratory Reports and
Chain-of-Custody Documentation**

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

December 24, 2014

Project: WA-5544

Submittal Date: 12/05/2014
Group Number: 1523505
PO Number: GP09BPNA.WA39
State of Sample Origin: WA

| <u>Client Sample Description</u> | <u>Lancaster Labs (LL) #</u> |
|----------------------------------|------------------------------|
| MW-2(12/02/2014) Water | 7700338 |
| MW-5(12/02/2014) Water | 7700340 |
| MW-6(12/02/2014) Water | 7700342 |
| MW-11(12/02/2014) Water | 7700344 |
| MW-12(12/02/2014) Water | 7700346 |
| MW-13(12/02/2014) Water | 7700348 |
| BD-5544(12/02/2014) Water | 7700350 |

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/> .

ELECTRONIC COPY TO
ELECTRONIC COPY TO
ARCADIS U.S., Inc.
ARCADIS U.S., Inc.

Attn: Richard Rodriguez

Attn: Sam Miles

Respectfully Submitted,



Natalie R. Luciano
Senior Specialist

(717) 556-7258

Project Name: WA-5544
LL Group #: 1523505

General Comments:

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client. The compliance signature is located on the cover page of the Analysis Reports.

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

No additional comments are necessary.

Sample Description: MW-2 (12/02/2014) Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7700338
LL Group # 1523505
Account # 13255

Project Name: WA-5544

Collected: 12/02/2014 12:34 by CP

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 12/05/2014 16:06

Reported: 12/24/2014 12:17

68K02

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------------------------------|-------------------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | SW-846 8260B | | ug/l | ug/l | ug/l | |
| 10335 | Benzene | 71-43-2 | 4.5 | 0.50 | 1.0 | 1 |
| 10335 | Ethylbenzene | 100-41-4 | 540 | 5.0 | 10 | 10 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Toluene | 108-88-3 | 3.6 | 0.50 | 1.0 | 1 |
| 10335 | Xylene (Total) | 1330-20-7 | 1,000 | 5.0 | 10 | 10 |
| GC Volatiles | | | | | | |
| | ECY 97-602 NWTPH-Gx | | ug/l | ug/l | ug/l | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 8,900 | 250 | 1,300 | 5 |
| GC Petroleum Hydrocarbons | | | | | | |
| | ECY 97-602 NWTPH-Dx modified | | ug/l | ug/l | ug/l | |
| 08271 | Diesel Range Organics C12-C24 | n.a. | 3,300 | 28 | 94 | 1 |
| 08271 | Heavy Range Organics C24-C40 | n.a. | 180 | J 66 | 230 | 1 |
| GC Petroleum Hydrocarbons w/Si | | | | | | |
| | ECY 97-602 NWTPH-Dx modified | | ug/l | ug/l | ug/l | |
| 02211 | DRO C12-C24 w/Si Gel | n.a. | 1,500 | 28 | 94 | 1 |
| 02211 | HRO C24-C40 w/Si Gel | n.a. | N.D. | 66 | 230 | 1 |
| Metals | | | | | | |
| | SW-846 6020 | | ug/l | ug/l | ug/l | |
| 06035 | Lead | 7439-92-1 | 0.12 | J 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|---------------------------------|--------|------------|------------------------|--------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | W143441AA | 12/10/2014 10:37 | Sarah A Guill | 1 |
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | W143441AA | 12/10/2014 18:06 | Sarah A Guill | 10 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | W143441AA | 12/10/2014 10:37 | Sarah A Guill | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 2 | W143441AA | 12/10/2014 18:06 | Sarah A Guill | 10 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14342C20A | 12/08/2014 22:16 | Brett W Kenyon | 5 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14342C20A | 12/08/2014 22:16 | Brett W Kenyon | 5 |
| 08271 | NWTPH-Dx water | ECY 97-602 NWTPH-Dx modified | 1 | 143420025A | 12/10/2014 23:52 | Lisa A Reinert | 1 |
| 02211 | NWTPH-Dx water w/Si Gel | ECY 97-602 NWTPH-Dx modified | 1 | 143420024A | 12/23/2014 20:25 | Christine E Dolman | 1 |
| 02135 | Extraction - DRO Water Special | ECY 97-602 NWTPH-Dx 06/97 | 1 | 143420024A | 12/09/2014 10:30 | Denise L Trimby | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-2 (12/02/2014) Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7700338
LL Group # 1523505
Account # 13255

Project Name: WA-5544

Collected: 12/02/2014 12:34 by CP

Atlantic Richfield c/o ARCADIS

Suite 600

Submitted: 12/05/2014 16:06

630 Plaza Drive

Reported: 12/24/2014 12:17

Highlands Ranch CO 80129

68K02

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|------------------------------|--------|---------------|------------------------|-----------------|-----------------|
| 11197 | WA DRO NW DX Ext (Non SG) | ECY 97-602 NWTPH-Dx 06/97 | 1 | 143420025A | 12/09/2014 10:30 | Denise L Trimby | 1 |
| 06035 | Lead | SW-846 6020 | 1 | 143436050004A | 12/11/2014 03:33 | Tara L Snyder | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 143436050004 | 12/10/2014 13:33 | James L Mertz | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-5 (12/02/2014) Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7700340
LL Group # 1523505
Account # 13255

Project Name: WA-5544

Collected: 12/02/2014 13:25 by CP

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 12/05/2014 16:06

Reported: 12/24/2014 12:17

68K05

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|--|-------------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B | | | | | | |
| 10335 | Benzene | 71-43-2 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Ethylbenzene | 100-41-4 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | 31 | 0.50 | 1.0 | 1 |
| 10335 | Toluene | 108-88-3 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Xylene (Total) | 1330-20-7 | N.D. | 0.50 | 1.0 | 1 |
| GC Volatiles ECY 97-602 NWTPH-Gx | | | | | | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 93 J | 50 | 250 | 1 |
| GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified | | | | | | |
| 08271 | Diesel Range Organics C12-C24 | n.a. | 220 | 28 | 93 | 1 |
| 08271 | Heavy Range Organics C24-C40 | n.a. | N.D. | 65 | 230 | 1 |
| GC Petroleum Hydrocarbons w/Si ECY 97-602 NWTPH-Dx modified | | | | | | |
| 02211 | DRO C12-C24 w/Si Gel | n.a. | 67 J | 28 | 93 | 1 |
| 02211 | HRO C24-C40 w/Si Gel | n.a. | N.D. | 65 | 230 | 1 |
| Metals SW-846 6020 | | | | | | |
| 06035 | Lead | 7439-92-1 | 0.25 J | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------|--------|------------|------------------------|--------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | W143442AA | 12/11/2014 03:20 | Amanda K Richards | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | W143442AA | 12/11/2014 03:20 | Amanda K Richards | 1 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 | 1 | 14342C20A | 12/08/2014 15:31 | Brett W Kenyon | 1 |
| | | NWTPH-Gx | | | | | |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14342C20A | 12/08/2014 15:31 | Brett W Kenyon | 1 |
| 08271 | NWTPH-Dx water | ECY 97-602 | 1 | 143420025A | 12/10/2014 23:08 | Lisa A Reinert | 1 |
| | | NWTPH-Dx modified | | | | | |
| 02211 | NWTPH-Dx water w/Si Gel | ECY 97-602 | 1 | 143420024A | 12/23/2014 19:42 | Christine E Dolman | 1 |
| | | NWTPH-Dx modified | | | | | |
| 02135 | Extraction - DRO Water Special | ECY 97-602 | 1 | 143420024A | 12/09/2014 10:30 | Denise L Trimby | 1 |
| | | NWTPH-Dx 06/97 | | | | | |
| 11197 | WA DRO NW DX Ext (Non SG) | ECY 97-602 | 1 | 143420025A | 12/09/2014 10:30 | Denise L Trimby | 1 |
| | | NWTPH-Dx 06/97 | | | | | |

*=This limit was used in the evaluation of the final result

Sample Description: MW-5 (12/02/2014) Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7700340
LL Group # 1523505
Account # 13255

Project Name: WA-5544

Collected: 12/02/2014 13:25 by CP

Atlantic Richfield c/o ARCADIS

Suite 600

Submitted: 12/05/2014 16:06

630 Plaza Drive

Reported: 12/24/2014 12:17

Highlands Ranch CO 80129

68K05

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|---------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 143436050004A | 12/11/2014 03:35 | Tara L Snyder | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 143436050004 | 12/10/2014 13:33 | James L Mertz | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-6 (12/02/2014) Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7700342
LL Group # 1523505
Account # 13255

Project Name: WA-5544

Collected: 12/02/2014 11:25 by CP

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 12/05/2014 16:06

Reported: 12/24/2014 12:17

68K06

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|--|-------------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B | | | | | | |
| 10335 | Benzene | 71-43-2 | 5.0 | 0.50 | 1.0 | 1 |
| 10335 | Ethylbenzene | 100-41-4 | 110 | 0.50 | 1.0 | 1 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | 2.6 | 0.50 | 1.0 | 1 |
| 10335 | Toluene | 108-88-3 | 2.7 | 0.50 | 1.0 | 1 |
| 10335 | Xylene (Total) | 1330-20-7 | 330 | 0.50 | 1.0 | 1 |
| GC Volatiles ECY 97-602 NWTPH-Gx | | | | | | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 8,500 | 250 | 1,300 | 5 |
| GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified | | | | | | |
| 08271 | Diesel Range Organics C12-C24 | n.a. | 2,200 | 28 | 93 | 1 |
| 08271 | Heavy Range Organics C24-C40 | n.a. | 210 J | 65 | 230 | 1 |
| GC Petroleum Hydrocarbons w/Si ECY 97-602 NWTPH-Dx modified | | | | | | |
| 02211 | DRO C12-C24 w/Si Gel | n.a. | 1,100 | 28 | 93 | 1 |
| 02211 | HRO C24-C40 w/Si Gel | n.a. | N.D. | 65 | 230 | 1 |
| Metals SW-846 6020 | | | | | | |
| 06035 | Lead | 7439-92-1 | 0.083 J | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------|--------|------------|------------------------|--------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | W143441AA | 12/10/2014 11:25 | Sarah A Guill | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | W143441AA | 12/10/2014 11:25 | Sarah A Guill | 1 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 | 1 | 14342C20A | 12/08/2014 23:10 | Brett W Kenyon | 5 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14342C20A | 12/08/2014 23:10 | Brett W Kenyon | 5 |
| 08271 | NWTPH-Dx water | ECY 97-602 | 1 | 143420025A | 12/11/2014 00:15 | Lisa A Reinert | 1 |
| 02211 | NWTPH-Dx water w/Si Gel | NWTPH-Dx modified | 1 | 143420024A | 12/23/2014 20:47 | Christine E Dolman | 1 |
| 02135 | Extraction - DRO Water Special | ECY 97-602 | 1 | 143420024A | 12/09/2014 10:30 | Denise L Trimby | 1 |
| 11197 | WA DRO NW DX Ext (Non SG) | NWTPH-Dx 06/97 | 1 | 143420025A | 12/09/2014 10:30 | Denise L Trimby | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-6 (12/02/2014) Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7700342
LL Group # 1523505
Account # 13255

Project Name: WA-5544

Collected: 12/02/2014 11:25 by CP

Atlantic Richfield c/o ARCADIS

Suite 600

Submitted: 12/05/2014 16:06

630 Plaza Drive

Reported: 12/24/2014 12:17

Highlands Ranch CO 80129

68K06

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|---------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 143436050004A | 12/11/2014 03:40 | Tara L Snyder | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 143436050004 | 12/10/2014 13:33 | James L Mertz | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-11(12/02/2014) Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7700344
LL Group # 1523505
Account # 13255

Project Name: WA-5544

Collected: 12/02/2014 15:16 by CP

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 12/05/2014 16:06

Reported: 12/24/2014 12:17

68K11

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|--|-------------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B | | | | | | |
| 10335 | Benzene | 71-43-2 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Ethylbenzene | 100-41-4 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Toluene | 108-88-3 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Xylene (Total) | 1330-20-7 | N.D. | 0.50 | 1.0 | 1 |
| GC Volatiles ECY 97-602 NWTPH-Gx | | | | | | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | N.D. | 50 | 250 | 1 |
| GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified | | | | | | |
| 08271 | Diesel Range Organics C12-C24 | n.a. | N.D. | 28 | 94 | 1 |
| 08271 | Heavy Range Organics C24-C40 | n.a. | N.D. | 66 | 230 | 1 |
| GC Petroleum Hydrocarbons w/Si ECY 97-602 NWTPH-Dx modified | | | | | | |
| 02211 | DRO C12-C24 w/Si Gel | n.a. | N.D. | 28 | 94 | 1 |
| 02211 | HRO C24-C40 w/Si Gel | n.a. | N.D. | 66 | 230 | 1 |
| Metals SW-846 6020 | | | | | | |
| 06035 | Lead | 7439-92-1 | 0.34 J | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------|--------|------------|------------------------|--------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | W143441AA | 12/10/2014 11:48 | Sarah A Guill | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | W143441AA | 12/10/2014 11:48 | Sarah A Guill | 1 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 | 1 | 14342C20A | 12/08/2014 15:58 | Brett W Kenyon | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14342C20A | 12/08/2014 15:58 | Brett W Kenyon | 1 |
| 08271 | NWTPH-Dx water | ECY 97-602 | 1 | 143420025A | 12/10/2014 22:46 | Lisa A Reinert | 1 |
| 02211 | NWTPH-Dx water w/Si Gel | NWTPH-Dx modified | 1 | 143420024A | 12/23/2014 19:20 | Christine E Dolman | 1 |
| 02135 | Extraction - DRO Water Special | ECY 97-602 | 1 | 143420024A | 12/09/2014 10:30 | Denise L Trimby | 1 |
| 11197 | WA DRO NW DX Ext (Non SG) | NWTPH-Dx 06/97 | 1 | 143420025A | 12/09/2014 10:30 | Denise L Trimby | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-11(12/02/2014) Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7700344
LL Group # 1523505
Account # 13255

Project Name: WA-5544

Collected: 12/02/2014 15:16 by CP

Atlantic Richfield c/o ARCADIS

Suite 600

Submitted: 12/05/2014 16:06

630 Plaza Drive

Reported: 12/24/2014 12:17

Highlands Ranch CO 80129

68K11

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|---------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 143436050004A | 12/11/2014 03:42 | Tara L Snyder | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 143436050004 | 12/10/2014 13:33 | James L Mertz | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-12 (12/02/2014) Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7700346
LL Group # 1523505
Account # 13255

Project Name: WA-5544

Collected: 12/02/2014 14:09 by CP

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 12/05/2014 16:06

Reported: 12/24/2014 12:17

68K12

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|--|-------------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B | | | | | | |
| 10335 | Benzene | 71-43-2 | 310 | 5.0 | 10 | 10 |
| 10335 | Ethylbenzene | 100-41-4 | 270 | 0.50 | 1.0 | 1 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | 96 | 0.50 | 1.0 | 1 |
| 10335 | Toluene | 108-88-3 | 0.75 J | 0.50 | 1.0 | 1 |
| 10335 | Xylene (Total) | 1330-20-7 | 360 | 0.50 | 1.0 | 1 |
| GC Volatiles ECY 97-602 NWTPH-Gx | | | | | | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 2,000 | 50 | 250 | 1 |
| GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified | | | | | | |
| 08271 | Diesel Range Organics C12-C24 | n.a. | 960 | 28 | 93 | 1 |
| 08271 | Heavy Range Organics C24-C40 | n.a. | 130 J | 65 | 230 | 1 |
| GC Petroleum Hydrocarbons w/Si ECY 97-602 NWTPH-Dx modified | | | | | | |
| 02211 | DRO C12-C24 w/Si Gel | n.a. | 430 | 28 | 93 | 1 |
| 02211 | HRO C24-C40 w/Si Gel | n.a. | N.D. | 65 | 230 | 1 |
| Metals SW-846 6020 | | | | | | |
| 06035 | Lead | 7439-92-1 | 0.53 J | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|---------------------------------|--------|------------|------------------------|--------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | W143441AA | 12/10/2014 12:12 | Sarah A Guill | 1 |
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | W143441AA | 12/10/2014 18:29 | Sarah A Guill | 10 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | W143441AA | 12/10/2014 12:12 | Sarah A Guill | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 2 | W143441AA | 12/10/2014 18:29 | Sarah A Guill | 10 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14342C20A | 12/08/2014 21:49 | Brett W Kenyon | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14342C20A | 12/08/2014 21:49 | Brett W Kenyon | 1 |
| 08271 | NWTPH-Dx water | ECY 97-602 NWTPH-Dx modified | 1 | 143420025A | 12/10/2014 23:30 | Lisa A Reinert | 1 |
| 02211 | NWTPH-Dx water w/Si Gel | ECY 97-602 NWTPH-Dx modified | 1 | 143420024A | 12/23/2014 20:03 | Christine E Dolman | 1 |
| 02135 | Extraction - DRO Water Special | ECY 97-602 NWTPH-Dx 06/97 | 1 | 143420024A | 12/09/2014 10:30 | Denise L Trimby | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-12 (12/02/2014) Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7700346
LL Group # 1523505
Account # 13255

Project Name: WA-5544

Collected: 12/02/2014 14:09 by CP

Atlantic Richfield c/o ARCADIS

Suite 600

Submitted: 12/05/2014 16:06

630 Plaza Drive

Reported: 12/24/2014 12:17

Highlands Ranch CO 80129

68K12

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|------------------------------|--------|---------------|------------------------|-----------------|-----------------|
| 11197 | WA DRO NW DX Ext (Non SG) | ECY 97-602 NWTPH-Dx 06/97 | 1 | 143420025A | 12/09/2014 10:30 | Denise L Trimby | 1 |
| 06035 | Lead | SW-846 6020 | 1 | 143436050004A | 12/11/2014 03:43 | Tara L Snyder | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 143436050004 | 12/10/2014 13:33 | James L Mertz | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-13 (12/02/2014) Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7700348
LL Group # 1523505
Account # 13255

Project Name: WA-5544

Collected: 12/02/2014 14:43 by CP

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 12/05/2014 16:06

Reported: 12/24/2014 12:17

68K13

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|--|-------------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B | | | | | | |
| 10335 | Benzene | 71-43-2 | 1.2 | 0.50 | 1.0 | 1 |
| 10335 | Ethylbenzene | 100-41-4 | 91 | 0.50 | 1.0 | 1 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | 25 | 0.50 | 1.0 | 1 |
| 10335 | Toluene | 108-88-3 | 0.92 J | 0.50 | 1.0 | 1 |
| 10335 | Xylene (Total) | 1330-20-7 | 690 | 0.50 | 1.0 | 1 |
| GC Volatiles ECY 97-602 NWTPH-Gx | | | | | | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 11,000 | 250 | 1,300 | 5 |
| GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified | | | | | | |
| 08271 | Diesel Range Organics C12-C24 | n.a. | 1,700 | 28 | 95 | 1 |
| 08271 | Heavy Range Organics C24-C40 | n.a. | 230 J | 66 | 240 | 1 |
| GC Petroleum Hydrocarbons w/Si ECY 97-602 NWTPH-Dx modified | | | | | | |
| 02211 | DRO C12-C24 w/Si Gel | n.a. | 950 | 28 | 95 | 1 |
| 02211 | HRO C24-C40 w/Si Gel | n.a. | N.D. | 66 | 240 | 1 |
| Metals SW-846 6020 | | | | | | |
| 06035 | Lead | 7439-92-1 | 0.19 J | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------|--------|------------|------------------------|--------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | W143441AA | 12/10/2014 12:35 | Sarah A Guill | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | W143441AA | 12/10/2014 12:35 | Sarah A Guill | 1 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 | 1 | 14342C20A | 12/08/2014 23:37 | Brett W Kenyon | 5 |
| | | NWTPH-Gx | | | | | |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14342C20A | 12/08/2014 23:37 | Brett W Kenyon | 5 |
| 08271 | NWTPH-Dx water | ECY 97-602 | 1 | 143420025A | 12/11/2014 00:37 | Lisa A Reinert | 1 |
| | | NWTPH-Dx modified | | | | | |
| 02211 | NWTPH-Dx water w/Si Gel | ECY 97-602 | 1 | 143420024A | 12/23/2014 21:15 | Christine E Dolman | 1 |
| | | NWTPH-Dx modified | | | | | |
| 02135 | Extraction - DRO Water Special | ECY 97-602 | 1 | 143420024A | 12/09/2014 10:30 | Denise L Trimby | 1 |
| | | NWTPH-Dx 06/97 | | | | | |
| 11197 | WA DRO NW DX Ext (Non SG) | ECY 97-602 | 1 | 143420025A | 12/09/2014 10:30 | Denise L Trimby | 1 |
| | | NWTPH-Dx 06/97 | | | | | |

*=This limit was used in the evaluation of the final result

Sample Description: MW-13 (12/02/2014) Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7700348
LL Group # 1523505
Account # 13255

Project Name: WA-5544

Collected: 12/02/2014 14:43 by CP

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 12/05/2014 16:06

Reported: 12/24/2014 12:17

68K13

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|---------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 143436050004A | 12/11/2014 03:45 | Tara L Snyder | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 143436050004 | 12/10/2014 13:33 | James L Mertz | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: **BD-5544 (12/02/2014) Water**
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # **WW 7700350**
 LL Group # **1523505**
 Account # **13255**

Project Name: **WA-5544**

Collected: 12/02/2014 by CP

Atlantic Richfield c/o ARCADIS
 Suite 600
 630 Plaza Drive
 Highlands Ranch CO 80129

Submitted: 12/05/2014 16:06

Reported: 12/24/2014 12:17

68KFD

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|--|-------------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B | | | | | | |
| 10335 | Benzene | 71-43-2 | 4.1 | 0.50 | 1.0 | 1 |
| 10335 | Ethylbenzene | 100-41-4 | 490 | 5.0 | 10 | 10 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | 0.59 J | 0.50 | 1.0 | 1 |
| 10335 | Toluene | 108-88-3 | 2.5 | 0.50 | 1.0 | 1 |
| 10335 | Xylene (Total) | 1330-20-7 | 830 | 5.0 | 10 | 10 |
| GC Volatiles ECY 97-602 NWTPH-Gx | | | | | | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 9,300 | 250 | 1,300 | 5 |
| GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified | | | | | | |
| 08271 | Diesel Range Organics C12-C24 | n.a. | 2,400 | 28 | 94 | 1 |
| 08271 | Heavy Range Organics C24-C40 | n.a. | 220 J | 66 | 230 | 1 |
| GC Petroleum Hydrocarbons w/Si ECY 97-602 NWTPH-Dx modified | | | | | | |
| 02211 | DRO C12-C24 w/Si Gel | n.a. | 1,300 | 28 | 94 | 1 |
| 02211 | HRO C24-C40 w/Si Gel | n.a. | N.D. | 66 | 230 | 1 |
| Metals SW-846 6020 | | | | | | |
| 06035 | Lead | 7439-92-1 | 0.32 J | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|---------------------------------|--------|------------|------------------------|--------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | W143441AA | 12/10/2014 12:59 | Sarah A Guill | 1 |
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | W143441AA | 12/10/2014 18:53 | Sarah A Guill | 10 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | W143441AA | 12/10/2014 12:59 | Sarah A Guill | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 2 | W143441AA | 12/10/2014 18:53 | Sarah A Guill | 10 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14342C20A | 12/09/2014 00:04 | Brett W Kenyon | 5 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14342C20A | 12/09/2014 00:04 | Brett W Kenyon | 5 |
| 08271 | NWTPH-Dx water | ECY 97-602 NWTPH-Dx modified | 1 | 143420025A | 12/11/2014 00:59 | Lisa A Reinert | 1 |
| 02211 | NWTPH-Dx water w/Si Gel | ECY 97-602 NWTPH-Dx modified | 1 | 143420024A | 12/23/2014 21:37 | Christine E Dolman | 1 |
| 02135 | Extraction - DRO Water Special | ECY 97-602 NWTPH-Dx 06/97 | 1 | 143420024A | 12/09/2014 10:30 | Denise L Trimby | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: **BD-5544 (12/02/2014) Water**
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # **WW 7700350**
 LL Group # **1523505**
 Account # **13255**

Project Name: **WA-5544**

Collected: 12/02/2014 by CP

Atlantic Richfield c/o ARCADIS

Submitted: 12/05/2014 16:06

Suite 600

Reported: 12/24/2014 12:17

630 Plaza Drive

Highlands Ranch CO 80129

68KFD

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|------------------------------|--------|---------------|------------------------|-----------------|-----------------|
| 11197 | WA DRO NW DX Ext (Non SG) | ECY 97-602 NWTPH-Dx 06/97 | 1 | 143420025A | 12/09/2014 10:30 | Denise L Trimby | 1 |
| 06035 | Lead | SW-846 6020 | 1 | 143436050004A | 12/11/2014 03:47 | Tara L Snyder | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 143436050004 | 12/10/2014 13:33 | James L Mertz | 1 |

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 12/24/14 at 12:17 PM

Group Number: 1523505

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

| <u>Analysis Name</u> | <u>Blank Result</u> | <u>Blank MDL**</u> | <u>Blank LOQ</u> | <u>Report Units</u> | <u>LCS %REC</u> | <u>LCSD %REC</u> | <u>LCS/LCSD Limits</u> | <u>RPD</u> | <u>RPD Max</u> |
|-------------------------------|---|--------------------|------------------|---------------------|-----------------|------------------|------------------------|------------|----------------|
| Batch number: W143441AA | Sample number(s): 7700338,7700342,7700344,7700346,7700348,7700350 | | | | | | | | |
| Benzene | N.D. | 0.50 | 1.0 | ug/l | 104 | 104 | 78-120 | 0 | 30 |
| Ethylbenzene | N.D. | 0.50 | 1.0 | ug/l | 105 | 107 | 79-120 | 1 | 30 |
| Methyl Tertiary Butyl Ether | N.D. | 0.50 | 1.0 | ug/l | 100 | 101 | 75-120 | 2 | 30 |
| Toluene | N.D. | 0.50 | 1.0 | ug/l | 106 | 107 | 80-120 | 1 | 30 |
| Xylene (Total) | N.D. | 0.50 | 1.0 | ug/l | 105 | 105 | 80-120 | 0 | 30 |
| Batch number: W143442AA | Sample number(s): 7700340 | | | | | | | | |
| Benzene | N.D. | 0.50 | 1.0 | ug/l | 103 | | 78-120 | | |
| Ethylbenzene | N.D. | 0.50 | 1.0 | ug/l | 106 | | 79-120 | | |
| Methyl Tertiary Butyl Ether | N.D. | 0.50 | 1.0 | ug/l | 100 | | 75-120 | | |
| Toluene | N.D. | 0.50 | 1.0 | ug/l | 106 | | 80-120 | | |
| Xylene (Total) | N.D. | 0.50 | 1.0 | ug/l | 105 | | 80-120 | | |
| Batch number: 14342C20A | Sample number(s): 7700338,7700340,7700342,7700344,7700346,7700348,7700350 | | | | | | | | |
| NWTPH-Gx water C7-C12 | N.D. | 50. | 250 | ug/l | 99 | 99 | 75-135 | 0 | 30 |
| Batch number: 143420025A | Sample number(s): 7700338,7700340,7700342,7700344,7700346,7700348,7700350 | | | | | | | | |
| Diesel Range Organics C12-C24 | N.D. | 30. | 100 | ug/l | 67 | 71 | 50-113 | 5 | 20 |
| Heavy Range Organics C24-C40 | N.D. | 70. | 250 | ug/l | | | | | |
| Batch number: 143420024A | Sample number(s): 7700338,7700340,7700342,7700344,7700346,7700348,7700350 | | | | | | | | |
| DRO C12-C24 w/Si Gel | N.D. | 30. | 100 | ug/l | 77 | 90 | 32-117 | 16 | 20 |
| HRO C24-C40 w/Si Gel | N.D. | 70. | 250 | ug/l | | | | | |
| Batch number: 143436050004A | Sample number(s): 7700338,7700340,7700342,7700344,7700346,7700348,7700350 | | | | | | | | |
| Lead | N.D. | 0.082 | 1.0 | ug/l | 102 | | 80-120 | | |

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

| <u>Analysis Name</u> | <u>MS %REC</u> | <u>MSD %REC</u> | <u>MS/MSD Limits</u> | <u>RPD</u> | <u>RPD MAX</u> | <u>BKG Conc</u> | <u>DUP Conc</u> | <u>DUP RPD</u> | <u>Dup RPD Max</u> |
|-----------------------------|--|-----------------|----------------------|------------|----------------|-----------------|-----------------|----------------|--------------------|
| Batch number: W143442AA | Sample number(s): 7700340 UNSPK: P700108 | | | | | | | | |
| Benzene | 112 | 115 | 72-134 | 3 | 30 | | | | |
| Ethylbenzene | 111 | 115 | 71-134 | 3 | 30 | | | | |
| Methyl Tertiary Butyl Ether | 105 | 110 | 72-126 | 5 | 30 | | | | |
| Toluene | 111 | 113 | 80-125 | 2 | 30 | | | | |
| Xylene (Total) | 112 | 114 | 79-125 | 2 | 30 | | | | |

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 12/24/14 at 12:17 PM

Group Number: 1523505

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

| <u>Analysis Name</u> | <u>MS %REC</u> | <u>MSD %REC</u> | <u>MS/MSD Limits</u> | <u>RPD</u> | <u>RPD MAX</u> | <u>BKG Conc</u> | <u>DUP Conc</u> | <u>DUP RPD</u> | <u>Dup RPD Max</u> |
|-----------------------------|---|-----------------|----------------------|------------|----------------|-----------------|-----------------|----------------|--------------------|
| Batch number: 143436050004A | Sample number(s): 7700338,7700340,7700342,7700344,7700346,7700348,7700350 UNSPK: P700636 BKG: P700636 | | | | | | | | |
| Lead | 104 | 103 | 75-125 | 1 | 20 | 0.23 | J 0.23 | J 3 (1) | 20 |

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs 8260 BTEX/MTBE
Batch number: W143441AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---------|----------------------|-----------------------|------------|----------------------|
| 7700338 | 101 | 100 | 98 | 101 |
| 7700342 | 100 | 103 | 99 | 102 |
| 7700344 | 100 | 90 | 98 | 99 |
| 7700346 | 98 | 100 | 99 | 98 |
| 7700348 | 97 | 93 | 99 | 100 |
| 7700350 | 101 | 104 | 99 | 101 |
| Blank | 101 | 102 | 99 | 99 |
| LCS | 100 | 100 | 100 | 99 |
| LCSD | 98 | 97 | 101 | 98 |
| Limits: | 80-116 | 77-113 | 80-113 | 78-113 |

Analysis Name: VOCs 8260 BTEX/MTBE
Batch number: W143442AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---------|----------------------|-----------------------|------------|----------------------|
| 7700340 | 100 | 101 | 99 | 100 |
| Blank | 98 | 98 | 99 | 98 |
| LCS | 99 | 96 | 101 | 98 |
| MS | 102 | 102 | 100 | 102 |
| MSD | 101 | 100 | 99 | 100 |
| Limits: | 80-116 | 77-113 | 80-113 | 78-113 |

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 14342C20A

| | Trifluorotoluene-F |
|---------|--------------------|
| 7700338 | 88 |
| 7700340 | 86 |
| 7700342 | 91 |
| 7700344 | 88 |
| 7700346 | 89 |
| 7700348 | 81 |
| 7700350 | 90 |
| Blank | 87 |
| LCS | 90 |
| LCSD | 91 |
| Limits: | 63-135 |

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 12/24/14 at 12:17 PM

Group Number: 1523505

Surrogate Quality Control

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 143420024A
Orthoterphenyl

| | |
|---------|-----|
| 7700338 | 107 |
| 7700340 | 108 |
| 7700342 | 94 |
| 7700344 | 105 |
| 7700346 | 109 |
| 7700348 | 107 |
| 7700350 | 107 |
| Blank | 102 |
| LCS | 102 |
| LCSD | 118 |

Limits: 50-150

Analysis Name: NWTPH-Dx water
Batch number: 143420025A
Orthoterphenyl

| | |
|---------|-----|
| 7700338 | 97 |
| 7700340 | 87 |
| 7700342 | 98 |
| 7700344 | 88 |
| 7700346 | 103 |
| 7700348 | 105 |
| 7700350 | 95 |
| Blank | 89 |
| LCS | 95 |
| LCSD | 97 |

Limits: 50-150

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

acct# 13255 Cup# 1523505 sample# 7700338-52

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

| | | |
|--|---|--|
| Section A Required Client Information: | Section B Required Project Information: | Section C Invoice Information: |
| Company: ARCADIS | Report To: Samuel Miles | Attention: Richard Rodriguez |
| Address: 1100 Olive Way Suite 800 Seattle, WA 98101 | Copy To: Richard Rodriguez | Company Name: ARCADIS |
| Email To: Samuel.Miles@arcadis-us.com | Purchase Order No. | Address: 1100 Olive Way Suite 800, Seattle, WA |
| Phone: 206-726-4720 Fax 206-325-8218 | Client Project ID: ARCO 5544 | Lancaster Project Manager Natalie Lucianc |
| Requested Due Date/TAT: 10 Day (Default) | Project Number: GP09BPNA.WA39 | Lancaster Profile: |

Regulatory Agency

State / Location
WA

| ITEM# | SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique | MATRIX Drinking Water Water Waste Water Product Soil/Solid Oil Wipe Air Other | CODE DW WT WW P SL OL WP AR OT TS | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED | | | | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives | | | | | | | Analyses Test Y/N | Requested Analysis Filtered (Y/N) | Residual Chlorine (Y/N) | **ON HOLD - Contact Arcadis for instructions | | | | | | | | |
|-------|--|--|---|---------------------------------------|-----------------------------|-----------|------|---------|------|---------------------------|-----------------|---------------|-------|------|-----|------|---------|----------|----------------------|-----------------------------------|-------------------------|--|-------|---|---|---|--|--|---------|--|
| | | | | | | DATE | TIME | DATE | TIME | | | Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | | | | | Other | | | | | | | |
| 1 | MW-2(12/02/2014) | WT | | | | | | 12/2/14 | 1234 | 12 | 1 | | 1 | 10 | | | | | X | X | X | X | X | X | X | X | | | | |
| 2 | MW-5(12/02/2014) | WT | | | | | | | 1325 | 12 | 1 | | 1 | 10 | | | | | X | X | X | X | X | X | X | X | | | | |
| 3 | MW-6(12/02/2014) | WT | | | | | | | 1125 | 12 | 1 | | 1 | 10 | | | | | X | X | X | X | X | X | X | X | | | | |
| 4 | MW-11(12/02/2014) | WT | | | | | | | 1516 | 12 | 1 | | 1 | 10 | | | | | X | X | X | X | X | X | X | X | | | | |
| 5 | MW-12(12/02/2014) | WT | | | | | | | 1409 | 12 | 1 | | 1 | 10 | | | | | X | X | X | X | X | X | X | X | | | | |
| 6 | MW-13(12/02/2014) | WT | | | | | | | 1443 | 12 | 1 | | 1 | 10 | | | | | X | X | X | X | X | X | X | X | | | | |
| 7 | BD-5544(12/02/2014) | WT | | | | | | | - | 12 | 1 | | 1 | 10 | | | | | X | X | X | X | X | X | X | X | | | | |
| 8 | TB-5544(12/02/2014) | WT | | | | | | | 0845 | | | | | | | | | | X | X | X | | | | | | | | on Hold | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS |
|---------------------|-------------------------------|---------|------|---------------------------|---------|------|-------------------|
| | Craig Peters BTS | 12/2/14 | | Vincent ELLE | 12/4/14 | 9:00 | |
| | | | | Paul G. GLE | 12/5/14 | 1606 | 0.3-3.0 y y y |

| | | | | | |
|---|----------------------|-----------|-----------------------|-----------------------------|----------------------|
| SAMPLER NAME AND SIGNATURE | | TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) |
| PRINT Name of SAMPLER: Craig Peters | | | | | |
| SIGNATURE of SAMPLER: <i>Craig Peters</i> | DATE Signed: 12/2/14 | | | | |

Client: Arcadis

Delivery and Receipt Information

Delivery Method: SeaTac Arrival Timestamp: 12/05/2014 16:06
 Number of Packages: 6 Number of Projects: 1
 State/Province of Origin: WA

Arrival Condition Summary

| | | | |
|--------------------------------------|-----|-------------------------------------|-----------|
| Shipping Container Sealed: | Yes | Sample IDs on COC match Containers: | Yes |
| Custody Seal Present: | Yes | Sample Date/Times match COC: | Yes |
| Custody Seal Intact: | Yes | VOA Vial Headspace \geq 6mm: | Yes |
| Samples Chilled: | Yes | VOA IDs (\geq 6mm): | See Below |
| Paperwork Enclosed: | Yes | Total Trip Blank Qty: | 2 |
| Samples Intact: | Yes | Trip Blank Type: | HCl |
| Missing Samples: | No | Air Quality Samples Present: | No |
| Extra Samples: | No | | |
| Discrepancy in Container Qty on COC: | No | | |

VOA Vial IDs (Headspace \geq 6mm): Trip Blank Vials

Unpacked by Patrick Engle (3472) at 20:57 on 12/05/2014

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

| Cooler # | Thermometer ID | Corrected Temp | Therm. Type | Ice Type | Ice Present? | Ice Container | Elevated Temp? |
|----------|----------------|----------------|-------------|----------|--------------|---------------|----------------|
| 1 | DT121 | 0.3 | DT | Wet | Y | Bagged | N |
| 2 | DT121 | 0.5 | DT | Wet | Y | Bagged | N |
| 3 | DT121 | 1.1 | DT | Wet | Y | Bagged | N |
| 4 | DT121 | 0.4 | DT | Wet | Y | Bagged | N |
| 5 | DT121 | 3.1 | DT | Wet | Y | Bagged | N |
| 6 | DT121 | 0.6 | DT | Wet | Y | Bagged | N |

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

| | | | |
|----------------------|-----------------------|-----------------|----------------------------------|
| RL | Reporting Limit | BMQL | Below Minimum Quantitation Level |
| N.D. | none detected | MPN | Most Probable Number |
| TNTC | Too Numerous To Count | CP Units | cobalt-chloroplatinate units |
| IU | International Units | NTU | nephelometric turbidity units |
| umhos/cm | micromhos/cm | ng | nanogram(s) |
| C | degrees Celsius | F | degrees Fahrenheit |
| meq | milliequivalents | lb. | pound(s) |
| g | gram(s) | kg | kilogram(s) |
| µg | microgram(s) | mg | milligram(s) |
| mL | milliliter(s) | L | liter(s) |
| m³ | cubic meter(s) | µL | microliter(s) |
| | | pg/L | picogram/liter |

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

- A** TIC is a possible aldol-condensation product
- B** Analyte was also detected in the blank
- C** Pesticide result confirmed by GC/MS
- D** Compound quantitated on a diluted sample
- E** Concentration exceeds the calibration range of the instrument
- N** Presumptive evidence of a compound (TICs only)
- P** Concentration difference between primary and confirmation columns $>25\%$
- U** Compound was not detected
- X,Y,Z** Defined in case narrative

Inorganic Qualifiers

- B** Value is $<$ CRDL, but \geq IDL
- E** Estimated due to interference
- M** Duplicate injection precision not met
- N** Spike sample not within control limits
- S** Method of standard additions (MSA) used for calculation
- U** Compound was not detected
- W** Post digestion spike out of control limits
- *** Duplicate analysis not within control limits
- +** Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

August 21, 2014

Project: WA-5544

Submittal Date: 08/13/2014
Group Number: 1495750
PO Number: GP09BPNA.WA39
State of Sample Origin: WA

| <u>Client Sample Description</u> | <u>Lancaster Labs (LL) #</u> |
|--------------------------------------|------------------------------|
| MW-2-08052014 Grab Water | 7563939 |
| MW-2-08052014 Filtered Grab Water | 7563940 |
| MW-5-08052014 Grab Water | 7563941 |
| MW-5-08052014 Filtered Grab Water | 7563942 |
| MW-6-08052014 Grab Water | 7563943 |
| MW-6-08052014 Filtered Grab Water | 7563944 |
| MW-11-08072014 Grab Water | 7563945 |
| MW-11-08072014 Filtered Grab Water | 7563946 |
| MW-12-08072014 Grab Water | 7563947 |
| MW-12-08072014 Filtered Grab Water | 7563948 |
| MW-13-08072014 Grab Water | 7563949 |
| MW-13-08072014 Filtered Grab Water | 7563950 |
| BD-5544-08052014 Grab Water | 7563951 |
| BD-5544-08052014 Filtered Grab Water | 7563952 |

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

| | | |
|--------------------|--------------------------------|-------------------------|
| ELECTRONIC COPY TO | ARCADIS U.S., Inc. | Attn: Sam Miles |
| ELECTRONIC COPY TO | ARCADIS U.S., Inc. | Attn: Richard Rodriguez |
| ELECTRONIC COPY TO | Atlantic Richfield c/o ARCADIS | Attn: Rory Henneck |
| ELECTRONIC COPY TO | ARCADIS U.S., Inc. | Attn: Kyle Haslam |

Respectfully Submitted,



Natalie R. Luciano
Senior Specialist

(717) 556-7258

Project Name: WA-5544
LL Group #: 1495750

General Comments:

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client. The compliance signature is located on the cover page of the Analysis Reports.

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:**SW-846 8260B, GC/MS Volatiles**

Sample #s: 7563943

Reporting limits were raised due to sample foaming.

SW-846 6020, Metals

Batch #: 142266050003A (Sample number(s): 7563939-7563948, 7563950, 7563952 UNSPK: P563957 BKG: P563957)

The duplicate RPD for the following analyte(s) exceeded the acceptance window:
Lead

SW-846 6020, Metals Dissolved

Batch #: 142266050003A (Sample number(s): 7563939-7563948, 7563950, 7563952 UNSPK: P563957 BKG: P563957)

The duplicate RPD for the following analyte(s) exceeded the acceptance window:
Lead

Sample Description: MW-2-08052014 Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563939
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/05/2014 09:20 by CP

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

68K02

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|------------------------|-----------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | SW-846 8260B | | ug/l | ug/l | ug/l | |
| 10335 | Benzene | 71-43-2 | 5.7 | 2.5 | 5.0 | 5 |
| 10335 | Ethylbenzene | 100-41-4 | 920 | 2.5 | 5.0 | 5 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 2.5 | 5.0 | 5 |
| 10335 | Toluene | 108-88-3 | 3.9 J | 2.5 | 5.0 | 5 |
| 10335 | Xylene (Total) | 1330-20-7 | 2,700 | 2.5 | 5.0 | 5 |
| GC Volatiles | | | | | | |
| | ECY 97-602 NWTPH-Gx | | ug/l | ug/l | ug/l | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 21,000 | 250 | 1,300 | 5 |
| Metals | | | | | | |
| | SW-846 6020 | | ug/l | ug/l | ug/l | |
| 06035 | Lead | 7439-92-1 | 0.37 J | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|----------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | L142252AA | 08/14/2014 01:49 | Andrea E Lando | 5 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | L142252AA | 08/14/2014 01:49 | Andrea E Lando | 5 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14230C20A | 08/19/2014 19:39 | Marie D Beamenderfer | 5 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14230C20A | 08/19/2014 19:39 | Marie D Beamenderfer | 5 |
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:47 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-2-08052014 Filtered Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563940
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/05/2014 09:20 by CP

Atlantic Richfield c/o ARCADIS

Submitted: 08/13/2014 09:40

Suite 600

Reported: 08/21/2014 18:29

630 Plaza Drive

Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 06035 | Lead | SW-846 6020 7439-92-1 | ug/l N.D. | ug/l 0.082 | ug/l 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:15 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-5-08052014 Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563941
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/05/2014 10:12 by CP

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

68K05

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|------------------------|-----------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | SW-846 8260B | | ug/l | ug/l | ug/l | |
| 10335 | Benzene | 71-43-2 | 1.3 | 0.50 | 1.0 | 1 |
| 10335 | Ethylbenzene | 100-41-4 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | 1.5 | 0.50 | 1.0 | 1 |
| 10335 | Toluene | 108-88-3 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Xylene (Total) | 1330-20-7 | 1.8 | 0.50 | 1.0 | 1 |
| GC Volatiles | | | | | | |
| | ECY 97-602 NWTPH-Gx | | ug/l | ug/l | ug/l | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 330 | 50 | 250 | 1 |
| Metals | | | | | | |
| | SW-846 6020 | | ug/l | ug/l | ug/l | |
| 06035 | Lead | 7439-92-1 | 0.086 J | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | L142252AA | 08/14/2014 02:11 | Andrea E Lando | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | L142252AA | 08/14/2014 02:11 | Andrea E Lando | 1 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14226A94A | 08/15/2014 16:15 | Marie D Beamenderfer | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14226A94A | 08/15/2014 16:15 | Marie D Beamenderfer | 1 |
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:49 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-5-08052014 Filtered Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563942
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/05/2014 10:12 by CP

Atlantic Richfield c/o ARCADIS

Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 06035 | Lead | 7439-92-1 | 0.10 J | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:17 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-6-08052014 Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563943
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/05/2014 11:00 by CP

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

68K06

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---|-----------------------------|----------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | | SW-846 8260B | ug/l | ug/l | ug/l | |
| 10335 | Benzene | 71-43-2 | 3.6 J | 2.5 | 5.0 | 5 |
| 10335 | Ethylbenzene | 100-41-4 | 120 | 2.5 | 5.0 | 5 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 2.5 | 5.0 | 5 |
| 10335 | Toluene | 108-88-3 | N.D. | 2.5 | 5.0 | 5 |
| 10335 | Xylene (Total) | 1330-20-7 | 230 | 2.5 | 5.0 | 5 |
| Reporting limits were raised due to sample foaming. | | | | | | |
| GC Volatiles | | | | | | |
| | | ECY 97-602 NWTPH-Gx | ug/l | ug/l | ug/l | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 7,500 | 250 | 1,300 | 5 |
| Metals | | | | | | |
| | | SW-846 6020 | ug/l | ug/l | ug/l | |
| 06035 | Lead | 7439-92-1 | 0.15 J | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | L142252AA | 08/14/2014 02:33 | Andrea E Lando | 5 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | L142252AA | 08/14/2014 02:33 | Andrea E Lando | 5 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14230C20A | 08/19/2014 20:06 | Marie D Beamenderfer | 5 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14230C20A | 08/19/2014 20:06 | Marie D Beamenderfer | 5 |
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:50 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-6-08052014 Filtered Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563944
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/05/2014 11:00 by CP

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 06035 | Lead | 7439-92-1 | N.D. | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:22 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-11-08072014 Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563945
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/07/2014 10:40 by CP

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

68K11

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|------------------------|-----------------------------|----------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | | SW-846 8260B | ug/l | ug/l | ug/l | |
| 10335 | Benzene | 71-43-2 | 0.75 J | 0.50 | 1.0 | 1 |
| 10335 | Ethylbenzene | 100-41-4 | 0.68 J | 0.50 | 1.0 | 1 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Toluene | 108-88-3 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Xylene (Total) | 1330-20-7 | 1.4 | 0.50 | 1.0 | 1 |
| GC Volatiles | | | | | | |
| | | ECY 97-602 NWTPH-Gx | ug/l | ug/l | ug/l | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | N.D. | 50 | 250 | 1 |
| Metals | | | | | | |
| | | SW-846 6020 | ug/l | ug/l | ug/l | |
| 06035 | Lead | 7439-92-1 | 38.6 | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | L142252AA | 08/14/2014 02:55 | Andrea E Lando | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | L142252AA | 08/14/2014 02:55 | Andrea E Lando | 1 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14226A94A | 08/15/2014 12:51 | Marie D Beamenderfer | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14226A94A | 08/15/2014 12:51 | Marie D Beamenderfer | 1 |
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:52 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-11-08072014 Filtered Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563946
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/07/2014 10:40 by CP

Atlantic Richfield c/o ARCADIS

Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 06035 | Lead | SW-846 6020 7439-92-1 | ug/l 2.7 | ug/l 0.082 | ug/l 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:24 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-12-08072014 Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563947
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/07/2014 09:10 by CP

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

68K12

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|------------------------|-----------------------------|----------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | | SW-846 8260B | ug/l | ug/l | ug/l | |
| 10335 | Benzene | 71-43-2 | 700 | 5.0 | 10 | 10 |
| 10335 | Ethylbenzene | 100-41-4 | 280 | 5.0 | 10 | 10 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | 88 | 0.50 | 1.0 | 1 |
| 10335 | Toluene | 108-88-3 | 2.1 | 0.50 | 1.0 | 1 |
| 10335 | Xylene (Total) | 1330-20-7 | 580 | 5.0 | 10 | 10 |
| GC Volatiles | | | | | | |
| | | ECY 97-602 NWTPH-Gx | ug/l | ug/l | ug/l | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 3,100 | 250 | 1,300 | 5 |
| Metals | | | | | | |
| | | SW-846 6020 | ug/l | ug/l | ug/l | |
| 06035 | Lead | 7439-92-1 | 4.7 | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|----------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | L142252AA | 08/14/2014 04:23 | Andrea E Lando | 1 |
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | N142262AA | 08/15/2014 05:14 | Amanda K Richards | 10 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | L142252AA | 08/14/2014 04:23 | Andrea E Lando | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 2 | N142262AA | 08/15/2014 05:14 | Amanda K Richards | 10 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14226A94A | 08/15/2014 17:31 | Marie D Beamenderfer | 5 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14226A94A | 08/15/2014 17:31 | Marie D Beamenderfer | 5 |
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:54 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-12-08072014 Filtered Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563948
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/07/2014 09:10 by CP

Atlantic Richfield c/o ARCADIS

Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 06035 | Lead | 7439-92-1 | 0.15 J | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:25 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-13-08072014 Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563949
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/07/2014 07:49 by CP

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

68K13

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|------------------------|-----------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | SW-846 8260B | | ug/l | ug/l | ug/l | |
| 10335 | Benzene | 71-43-2 | 2.0 | 0.50 | 1.0 | 1 |
| 10335 | Ethylbenzene | 100-41-4 | 12 | 0.50 | 1.0 | 1 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | 90 | 0.50 | 1.0 | 1 |
| 10335 | Toluene | 108-88-3 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Xylene (Total) | 1330-20-7 | 94 | 0.50 | 1.0 | 1 |
| GC Volatiles | | | | | | |
| | ECY 97-602 NWTPH-Gx | | ug/l | ug/l | ug/l | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 1,000 | 50 | 250 | 1 |
| Metals | | | | | | |
| | SW-846 6020 | | ug/l | ug/l | ug/l | |
| 06035 | Lead | 7439-92-1 | 6.1 | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | L142252AA | 08/14/2014 04:45 | Andrea E Lando | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | L142252AA | 08/14/2014 04:45 | Andrea E Lando | 1 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14226A94A | 08/15/2014 14:58 | Marie D Beamenderfer | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14226A94A | 08/15/2014 14:58 | Marie D Beamenderfer | 1 |
| 06035 | Lead | SW-846 6020 | 1 | 142266050004A | 08/19/2014 10:00 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050004 | 08/17/2014 10:28 | James L Mertz | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-13-08072014 Filtered Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563950
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/07/2014 07:49 by CP

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 08/13/2014 09:40

630 Plaza Drive

Reported: 08/21/2014 18:29

Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 06035 | Lead | 7439-92-1 | 0.30 J | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:27 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: **BD-5544-08052014 Grab Water**
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # **WW 7563951**
 LL Group # **1495750**
 Account # **13255**

Project Name: **WA-5544**

Collected: 08/05/2014 by CP

Atlantic Richfield c/o ARCADIS
 Suite 600
 630 Plaza Drive
 Highlands Ranch CO 80129

Submitted: 08/13/2014 09:40

Reported: 08/21/2014 18:29

68KFD

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|------------------------|-----------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | SW-846 8260B | | ug/l | ug/l | ug/l | |
| 10335 | Benzene | 71-43-2 | 6.2 | 1.0 | 2.0 | 2 |
| 10335 | Ethylbenzene | 100-41-4 | 920 | 10 | 20 | 20 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 1.0 | 2.0 | 2 |
| 10335 | Toluene | 108-88-3 | 4.0 | 1.0 | 2.0 | 2 |
| 10335 | Xylene (Total) | 1330-20-7 | 2,600 | 10 | 20 | 20 |
| GC Volatiles | | | | | | |
| | ECY 97-602 NWTPH-Gx | | ug/l | ug/l | ug/l | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 17,000 | 250 | 1,300 | 5 |
| Metals | | | | | | |
| | SW-846 6020 | | ug/l | ug/l | ug/l | |
| 06035 | Lead | 7439-92-1 | 0.49 J | 0.082 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|----------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | L142252AA | 08/14/2014 05:07 | Andrea E Lando | 2 |
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | L142252AA | 08/14/2014 05:29 | Andrea E Lando | 20 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | L142252AA | 08/14/2014 05:07 | Andrea E Lando | 2 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 2 | L142252AA | 08/14/2014 05:29 | Andrea E Lando | 20 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14226A94A | 08/15/2014 18:47 | Marie D Beamenderfer | 5 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14226A94A | 08/15/2014 18:47 | Marie D Beamenderfer | 5 |
| 06035 | Lead | SW-846 6020 | 1 | 142266050004A | 08/19/2014 10:20 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050004 | 08/17/2014 10:28 | James L Mertz | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: BD-5544-08052014 Filtered Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7563952
LL Group # 1495750
Account # 13255

Project Name: WA-5544

Collected: 08/05/2014 by CP

Atlantic Richfield c/o ARCADIS

Submitted: 08/13/2014 09:40

Suite 600

Reported: 08/21/2014 18:29

630 Plaza Drive

Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 06035 | Lead | SW-846 6020 7439-92-1 | ug/l N.D. | ug/l 0.082 | ug/l 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 142266050003A | 08/20/2014 10:29 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 142266050003 | 08/18/2014 09:00 | Micaela L Dishong | 1 |

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 08/21/14 at 06:29 PM

Group Number: 1495750

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

| <u>Analysis Name</u> | <u>Blank Result</u> | <u>Blank MDL**</u> | <u>Blank LOQ</u> | <u>Report Units</u> | <u>LCS %REC</u> | <u>LCSD %REC</u> | <u>LCS/LCSD Limits</u> | <u>RPD</u> | <u>RPD Max</u> |
|-----------------------------|---|--------------------|------------------|---------------------|-----------------|------------------|------------------------|------------|----------------|
| Batch number: L142252AA | Sample number(s): 7563939, 7563941, 7563943, 7563945, 7563947, 7563949, 7563951 | | | | | | | | |
| Benzene | N.D. | 0.50 | 1.0 | ug/l | 105 | 103 | 78-120 | 1 | 30 |
| Ethylbenzene | N.D. | 0.50 | 1.0 | ug/l | 97 | 94 | 79-120 | 3 | 30 |
| Methyl Tertiary Butyl Ether | N.D. | 0.50 | 1.0 | ug/l | 105 | 105 | 75-120 | 0 | 30 |
| Toluene | N.D. | 0.50 | 1.0 | ug/l | 97 | 96 | 80-120 | 1 | 30 |
| Xylene (Total) | N.D. | 0.50 | 1.0 | ug/l | 97 | 95 | 80-120 | 3 | 30 |
| Batch number: N142262AA | Sample number(s): 7563947 | | | | | | | | |
| Benzene | N.D. | 0.50 | 1.0 | ug/l | 102 | 101 | 78-120 | 1 | 30 |
| Ethylbenzene | N.D. | 0.50 | 1.0 | ug/l | 99 | 102 | 79-120 | 3 | 30 |
| Xylene (Total) | N.D. | 0.50 | 1.0 | ug/l | 101 | 105 | 80-120 | 3 | 30 |
| Batch number: 14226A94A | Sample number(s): 7563941, 7563945, 7563947, 7563949, 7563951 | | | | | | | | |
| NWTPH-Gx water C7-C12 | N.D. | 50. | 250 | ug/l | 97 | | 75-135 | | |
| Batch number: 14230C20A | Sample number(s): 7563939, 7563943 | | | | | | | | |
| NWTPH-Gx water C7-C12 | N.D. | 50. | 250 | ug/l | 104 | | 75-135 | | |
| Batch number: 142266050003A | Sample number(s): 7563939-7563948, 7563950, 7563952 | | | | | | | | |
| Lead | N.D. | 0.082 | 1.0 | ug/l | 98 | | 90-110 | | |
| Batch number: 142266050004A | Sample number(s): 7563949, 7563951 | | | | | | | | |
| Lead | N.D. | 0.082 | 1.0 | ug/l | 103 | | 90-110 | | |

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

| <u>Analysis Name</u> | <u>MS %REC</u> | <u>MSD %REC</u> | <u>MS/MSD Limits</u> | <u>RPD</u> | <u>RPD MAX</u> | <u>BKG Conc</u> | <u>DUP Conc</u> | <u>DUP RPD</u> | <u>Dup RPD Max</u> |
|-----------------------------|---|-----------------|----------------------|------------|----------------|-----------------|-----------------|----------------|--------------------|
| Batch number: 14226A94A | Sample number(s): 7563941, 7563945, 7563947, 7563949, 7563951 UNSPK: 7563947 | | | | | | | | |
| NWTPH-Gx water C7-C12 | 100 | 95 | 75-135 | 3 | 30 | | | | |
| Batch number: 14230C20A | Sample number(s): 7563939, 7563943 UNSPK: P566637 | | | | | | | | |
| NWTPH-Gx water C7-C12 | 119 | 119 | 75-135 | 0 | 30 | | | | |
| Batch number: 142266050003A | Sample number(s): 7563939-7563948, 7563950, 7563952 UNSPK: P563957 BKG: P563957 | | | | | | | | |
| Lead | 95 | 97 | 89-120 | 1 | 20 | 0.088 J | N.D. | 200* (1) | 20 |
| Batch number: 142266050004A | Sample number(s): 7563949, 7563951 UNSPK: 7563949 BKG: 7563949 | | | | | | | | |

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 08/21/14 at 06:29 PM

Group Number: 1495750

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

| <u>Analysis Name</u> | <u>MS</u> <u>%REC</u> | <u>MSD</u> <u>%REC</u> | <u>MS/MSD</u> <u>Limits</u> | <u>RPD</u> <u>RPD</u> | <u>RPD</u> <u>MAX</u> | <u>BKG</u> <u>Conc</u> | <u>DUP</u> <u>Conc</u> | <u>DUP</u> <u>RPD</u> | <u>Dup</u> <u>RPD</u> <u>Max</u> |
|----------------------|--------------------------|---------------------------|--------------------------------|--------------------------|--------------------------|---------------------------|---------------------------|--------------------------|-------------------------------------|
| Lead | 98 | 97 | 89-120 | 1 | 20 | 6.1 | 5.8 | 5 | 20 |

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PPL + Xylene (total) by 8260

Batch number: L142252AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---------|----------------------|-----------------------|------------|----------------------|
| 7563939 | 103 | 101 | 93 | 102 |
| 7563941 | 102 | 98 | 94 | 101 |
| 7563943 | 102 | 99 | 93 | 102 |
| 7563945 | 103 | 102 | 94 | 101 |
| 7563947 | 99 | 98 | 95 | 101 |
| 7563949 | 104 | 100 | 94 | 101 |
| 7563951 | 102 | 99 | 94 | 102 |
| Blank | 104 | 102 | 94 | 100 |
| LCS | 103 | 100 | 97 | 103 |
| LCSD | 103 | 99 | 95 | 101 |

Limits: 80-116 77-113 80-113 78-113

Analysis Name: NWT PH-Gx water C7-C12

Batch number: 14226A94A

| | Trifluorotoluene-F |
|---------|--------------------|
| 7563941 | 89 |
| 7563945 | 82 |
| 7563947 | 95 |
| 7563949 | 84 |
| 7563951 | 85 |
| Blank | 81 |
| LCS | 91 |
| MS | 95 |
| MSD | 89 |

Limits: 63-135

Analysis Name: NWT PH-Gx water C7-C12

Batch number: 14230C20A

| | Trifluorotoluene-F |
|---------|--------------------|
| 7563939 | 92 |
| 7563943 | 93 |
| Blank | 91 |
| LCS | 94 |
| MS | 111 |

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control SummaryClient Name: Atlantic Richfield c/o ARCADIS
Reported: 08/21/14 at 06:29 PM

Group Number: 1495750

Surrogate Quality Control

MSD 111

Limits: 63-135

*- Outside of specification

**-This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Client: ARCADIS

ARCO 5544

Delivery and Receipt Information

Delivery Method: SeaTac Arrival Timestamp: 08/13/2014 9:40
 Number of Packages: 2 Number of Projects: 3
 State/Province of Origin: WA

Arrival Condition Summary

| | | | |
|--------------------------------------|------------|---------------------------------------|------------|
| Shipping Container Sealed: | <u>Yes</u> | Total Trip Blank Qty: | <u>3</u> |
| Custody Seal Present: | <u>Yes</u> | Trip Blank Type: | <u>HCL</u> |
| Custody Seal Intact: | <u>Yes</u> | Air Quality Samples Present: | <u>No</u> |
| Samples Chilled: | <u>Yes</u> | Air Quality Flow Controllers Present: | <u>N/A</u> |
| Paperwork Enclosed: | <u>Yes</u> | Flow Controller Quantity: | <u>0</u> |
| Samples Intact: | <u>Yes</u> | Air Quality Returns: | <u>N/A</u> |
| Missing Samples: | <u>No</u> | | |
| Extra Samples: | <u>No</u> | | |
| Discrepancy in Container Qty on COC: | <u>No</u> | | |
| Sample IDs on COC match Containers: | <u>Yes</u> | | |
| Sample Date/Times match COC: | <u>Yes</u> | | |
| VOA Vial Headspace ≥ 6mm: | <u>No</u> | | |
| VOA IDs (≥ 6mm): | <u>N/A</u> | | |

Unpacked by Corey Eshleman (3647) at 10:53 on 08/13/2014

Samples Chilled Details: ARCO 5544

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

| Cooler # | Thermometer ID | Corrected Temp | Therm. Type | Ice Type | Ice Present? | Ice Container | Samples | |
|----------|----------------|----------------|-------------|----------|--------------|---------------|--------------------------------|----------------|
| | | | | | | | Collected Same Day as Receipt? | Elevated Temp? |
| 1 | DT121 | 1.0 | DT | Wet | Y | Bagged | N | N |
| 2 | DT121 | 0.7 | DT | Wet | Y | Bagged | N | N |

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

| | | | |
|----------------------|-----------------------|-----------------|----------------------------------|
| RL | Reporting Limit | BMQL | Below Minimum Quantitation Level |
| N.D. | none detected | MPN | Most Probable Number |
| TNTC | Too Numerous To Count | CP Units | cobalt-chloroplatinate units |
| IU | International Units | NTU | nephelometric turbidity units |
| umhos/cm | micromhos/cm | ng | nanogram(s) |
| C | degrees Celsius | F | degrees Fahrenheit |
| meq | milliequivalents | lb. | pound(s) |
| g | gram(s) | kg | kilogram(s) |
| µg | microgram(s) | mg | milligram(s) |
| mL | milliliter(s) | L | liter(s) |
| m³ | cubic meter(s) | µL | microliter(s) |
| | | pg/L | picogram/liter |

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

- A** TIC is a possible aldol-condensation product
- B** Analyte was also detected in the blank
- C** Pesticide result confirmed by GC/MS
- D** Compound quantitated on a diluted sample
- E** Concentration exceeds the calibration range of the instrument
- N** Presumptive evidence of a compound (TICs only)
- P** Concentration difference between primary and confirmation columns $>25\%$
- U** Compound was not detected
- X,Y,Z** Defined in case narrative

Inorganic Qualifiers

- B** Value is $<$ CRDL, but \geq IDL
- E** Estimated due to interference
- M** Duplicate injection precision not met
- N** Spike sample not within control limits
- S** Method of standard additions (MSA) used for calculation
- U** Compound was not detected
- W** Post digestion spike out of control limits
- *** Duplicate analysis not within control limits
- +** Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

May 28, 2014

Project: WA-5544

Submittal Date: 05/16/2014
Group Number: 1475049
PO Number: GP09BPNA.WA39
State of Sample Origin: WA

| <u>Client Sample Description</u> | <u>Lancaster Labs (LL) #</u> |
|--------------------------------------|------------------------------|
| MW-2-05142014 Grab Water | 7467119 |
| MW-2-05142014 Filtered Grab Water | 7467120 |
| MW-5-05142014 Grab Water | 7467121 |
| MW-5-05142014 Filtered Grab Water | 7467122 |
| MW-6-05142014 Grab Water | 7467123 |
| MW-6-05142014 Filtered Grab Water | 7467124 |
| BD-5544-05142014 Grab Water | 7467125 |
| BD-5544-05142014 Filtered Grab Water | 7467126 |

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

| | | |
|--------------------|--------------------------------|--------------------|
| ELECTRONIC COPY TO | ARCADIS U.S., Inc. | Attn: Sam Miles |
| ELECTRONIC COPY TO | Atlantic Richfield c/o ARCADIS | Attn: Rory Henneck |
| ELECTRONIC COPY TO | ARCADIS U.S., Inc. | Attn: Kyle Haslam |

Respectfully Submitted,



Natalie R. Luciano
Senior Specialist

(717) 556-7258

Project Name: WA-5544
LLI Group #: 1475049

General Comments:

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client. The compliance signature is located on the cover page of the Analysis Reports.

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:**SW-846 8260B, GC/MS Volatiles**

Sample #s: 7467123

Reporting limits were raised due to interference from the sample matrix.

Sample Description: MW-2-05142014 Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7467119
LL Group # 1475049
Account # 13255

Project Name: WA-5544

Collected: 05/14/2014 14:00 by JB

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 05/16/2014 16:15

630 Plaza Drive

Reported: 05/28/2014 16:51

Highlands Ranch CO 80129

68K02

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|------------------------|-----------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | SW-846 8260B | | ug/l | ug/l | ug/l | |
| 10335 | Benzene | 71-43-2 | 2.6 | 0.50 | 1.0 | 1 |
| 10335 | Ethylbenzene | 100-41-4 | 210 | 0.50 | 1.0 | 1 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Toluene | 108-88-3 | 0.79 J | 0.50 | 1.0 | 1 |
| 10335 | Xylene (Total) | 1330-20-7 | 730 | 0.50 | 1.0 | 1 |
| GC Volatiles | | | | | | |
| | ECY 97-602 NWTPH-Gx | | ug/l | ug/l | ug/l | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 5,200 | 50 | 250 | 1 |
| Metals | | | | | | |
| | SW-846 6020 | | ug/l | ug/l | ug/l | |
| 06035 | Lead | 7439-92-1 | 0.18 J | 0.085 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | T141422AA | 05/22/2014 22:03 | Amanda K Richards | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | T141422AA | 05/22/2014 22:03 | Amanda K Richards | 1 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14142B94A | 05/23/2014 21:32 | Marie D Beamenderfer | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14142B94A | 05/23/2014 21:32 | Marie D Beamenderfer | 1 |
| 06035 | Lead | SW-846 6020 | 1 | 141396050002A | 05/21/2014 04:31 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 141396050002 | 05/19/2014 23:30 | Annamaria Kuhns | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-2-05142014 Filtered Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7467120
LL Group # 1475049
Account # 13255

Project Name: WA-5544

Collected: 05/14/2014 14:00 by JB

Atlantic Richfield c/o ARCADIS

Suite 600

Submitted: 05/16/2014 16:15

630 Plaza Drive

Reported: 05/28/2014 16:51

Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 06035 | Lead | 7439-92-1 | N.D. | 0.085 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-----------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 141396050002A | 05/21/2014 04:33 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 141396050002 | 05/19/2014 23:30 | Annamaria Kuhns | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-5-05142014 Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7467121
LL Group # 1475049
Account # 13255

Project Name: WA-5544

Collected: 05/14/2014 14:45 by JB

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 05/16/2014 16:15

630 Plaza Drive

Reported: 05/28/2014 16:51

Highlands Ranch CO 80129

68K05

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|------------------------|-----------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | SW-846 8260B | | ug/l | ug/l | ug/l | |
| 10335 | Benzene | 71-43-2 | 2.3 | 0.50 | 1.0 | 1 |
| 10335 | Ethylbenzene | 100-41-4 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | 1.2 | 0.50 | 1.0 | 1 |
| 10335 | Toluene | 108-88-3 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Xylene (Total) | 1330-20-7 | N.D. | 0.50 | 1.0 | 1 |
| GC Volatiles | | | | | | |
| | ECY 97-602 NWTPH-Gx | | ug/l | ug/l | ug/l | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 100 J | 50 | 250 | 1 |
| Metals | | | | | | |
| | SW-846 6020 | | ug/l | ug/l | ug/l | |
| 06035 | Lead | 7439-92-1 | 0.12 J | 0.085 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-------------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | T141422AA | 05/22/2014 22:27 | Amanda K Richards | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | T141422AA | 05/22/2014 22:27 | Amanda K Richards | 1 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14142B94A | 05/23/2014 17:43 | Marie D Beamenderfer | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14142B94A | 05/23/2014 17:43 | Marie D Beamenderfer | 1 |
| 06035 | Lead | SW-846 6020 | 1 | 141396050002A | 05/21/2014 04:34 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 141396050002 | 05/19/2014 23:30 | Annamaria Kuhns | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-5-05142014 Filtered Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7467122
LL Group # 1475049
Account # 13255

Project Name: WA-5544

Collected: 05/14/2014 14:45 by JB

Atlantic Richfield c/o ARCADIS

Suite 600

Submitted: 05/16/2014 16:15

630 Plaza Drive

Reported: 05/28/2014 16:51

Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 06035 | Lead | 7439-92-1 | 0.21 J | 0.085 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-----------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 141396050002A | 05/21/2014 04:36 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 141396050002 | 05/19/2014 23:30 | Annamaria Kuhns | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-6-05142014 Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7467123
LL Group # 1475049
Account # 13255

Project Name: WA-5544

Collected: 05/14/2014 15:18 by JB

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 05/16/2014 16:15

630 Plaza Drive

Reported: 05/28/2014 16:51

Highlands Ranch CO 80129

68K06

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|--|-----------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | SW-846 8260B | | ug/l | ug/l | ug/l | |
| 10335 | Benzene | 71-43-2 | N.D. | 2.5 | 5.0 | 5 |
| 10335 | Ethylbenzene | 100-41-4 | 57 | 2.5 | 5.0 | 5 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 2.5 | 5.0 | 5 |
| 10335 | Toluene | 108-88-3 | N.D. | 2.5 | 5.0 | 5 |
| 10335 | Xylene (Total) | 1330-20-7 | 420 | 2.5 | 5.0 | 5 |
| Reporting limits were raised due to interference from the sample matrix. | | | | | | |
| GC Volatiles | | | | | | |
| | ECY 97-602 NWTPH-Gx | | ug/l | ug/l | ug/l | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 14,000 | 250 | 1,300 | 5 |
| Metals | | | | | | |
| | SW-846 6020 | | ug/l | ug/l | ug/l | |
| 06035 | Lead | 7439-92-1 | 0.17 J | 0.085 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|----------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | T141422AA | 05/23/2014 00:50 | Amanda K Richards | 5 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | T141422AA | 05/23/2014 00:50 | Amanda K Richards | 5 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14142B94A | 05/23/2014 23:40 | Marie D Beamenderfer | 5 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14142B94A | 05/23/2014 23:40 | Marie D Beamenderfer | 5 |
| 06035 | Lead | SW-846 6020 | 1 | 141396050002A | 05/21/2014 04:09 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 141396050002 | 05/19/2014 23:30 | Annamaria Kuhns | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-6-05142014 Filtered Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7467124
LL Group # 1475049
Account # 13255

Project Name: WA-5544

Collected: 05/14/2014 15:18 by JB

Atlantic Richfield c/o ARCADIS

Suite 600

Submitted: 05/16/2014 16:15

630 Plaza Drive

Reported: 05/28/2014 16:51

Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 06035 | Lead | 7439-92-1 | N.D. | 0.085 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-----------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 141396050002A | 05/21/2014 04:38 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 141396050002 | 05/19/2014 23:30 | Annamaria Kuhns | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: **BD-5544-05142014 Grab Water**
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # **WW 7467125**
 LL Group # **1475049**
 Account # **13255**

Project Name: **WA-5544**

Collected: 05/14/2014 by JB

Atlantic Richfield c/o ARCADIS
 Suite 600
 630 Plaza Drive
 Highlands Ranch CO 80129

Submitted: 05/16/2014 16:15

Reported: 05/28/2014 16:51

68KBD

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|------------------------|-----------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | SW-846 8260B | | ug/l | ug/l | ug/l | |
| 10335 | Benzene | 71-43-2 | 2.8 | 0.50 | 1.0 | 1 |
| 10335 | Ethylbenzene | 100-41-4 | 230 | 0.50 | 1.0 | 1 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.50 | 1.0 | 1 |
| 10335 | Toluene | 108-88-3 | 0.99 J | 0.50 | 1.0 | 1 |
| 10335 | Xylene (Total) | 1330-20-7 | 710 | 5.0 | 10 | 10 |
| GC Volatiles | | | | | | |
| | ECY 97-602 NWTPH-Gx | | ug/l | ug/l | ug/l | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 5,100 | 250 | 1,300 | 5 |
| Metals | | | | | | |
| | SW-846 6020 | | ug/l | ug/l | ug/l | |
| 06035 | Lead | 7439-92-1 | 0.16 J | 0.085 | 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|----------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | T141422AA | 05/23/2014 02:01 | Amanda K Richards | 1 |
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | T141422AA | 05/23/2014 02:25 | Amanda K Richards | 10 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | T141422AA | 05/23/2014 02:01 | Amanda K Richards | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 2 | T141422AA | 05/23/2014 02:25 | Amanda K Richards | 10 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14142B94B | 05/28/2014 14:40 | Marie D Beamenderfer | 5 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14142B94B | 05/28/2014 14:40 | Marie D Beamenderfer | 5 |
| 06035 | Lead | SW-846 6020 | 1 | 141396050002A | 05/21/2014 04:40 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 141396050002 | 05/19/2014 23:30 | Annamaria Kuhns | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: BD-5544-05142014 Filtered Grab Water
WA-5544
19918 68th Ave S - Kent, WA

LL Sample # WW 7467126
LL Group # 1475049
Account # 13255

Project Name: WA-5544

Collected: 05/14/2014 by JB

Atlantic Richfield c/o ARCADIS

Submitted: 05/16/2014 16:15

Suite 600

Reported: 05/28/2014 16:51

630 Plaza Drive

Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 06035 | Lead | SW-846 6020 7439-92-1 | ug/l 0.094 J | ug/l 0.085 | ug/l 1.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|----------------------------|-----------------------|--------|---------------|------------------------|-----------------|-----------------|
| 06035 | Lead | SW-846 6020 | 1 | 141396050002A | 05/21/2014 04:42 | Choon Y Tian | 1 |
| 06050 | ICP/MS SW-846 Water Digest | SW-846 3010A modified | 1 | 141396050002 | 05/19/2014 23:30 | Annamaria Kuhns | 1 |

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 05/28/14 at 04:51 PM

Group Number: 1475049

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

| <u>Analysis Name</u> | <u>Blank Result</u> | <u>Blank MDL**</u> | <u>Blank LOQ</u> | <u>Report Units</u> | <u>LCS %REC</u> | <u>LCSD %REC</u> | <u>LCS/LCSD Limits</u> | <u>RPD</u> | <u>RPD Max</u> |
|-----------------------------|---|--------------------|------------------|---------------------|-----------------|------------------|------------------------|------------|----------------|
| Batch number: T141422AA | Sample number(s): 7467119,7467121,7467123,7467125 | | | | | | | | |
| Benzene | N.D. | 0.50 | 1.0 | ug/l | 111 | 108 | 78-120 | 3 | 30 |
| Ethylbenzene | N.D. | 0.50 | 1.0 | ug/l | 96 | 100 | 79-120 | 4 | 30 |
| Methyl Tertiary Butyl Ether | N.D. | 0.50 | 1.0 | ug/l | 94 | 93 | 75-120 | 1 | 30 |
| Toluene | N.D. | 0.50 | 1.0 | ug/l | 99 | 102 | 80-120 | 3 | 30 |
| Xylene (Total) | N.D. | 0.50 | 1.0 | ug/l | 87 | 89 | 80-120 | 3 | 30 |
| Batch number: 14142B94A | Sample number(s): 7467119,7467121,7467123 | | | | | | | | |
| NWTPH-Gx water C7-C12 | N.D. | 50. | 250 | ug/l | 107 | | 75-135 | | |
| Batch number: 14142B94B | Sample number(s): 7467125 | | | | | | | | |
| NWTPH-Gx water C7-C12 | N.D. | 50. | 250 | ug/l | 107 | | 75-135 | | |
| Batch number: 141396050002A | Sample number(s): 7467119-7467126 | | | | | | | | |
| Lead | N.D. | 0.085 | 1.0 | ug/l | 103 | | 90-110 | | |

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

| <u>Analysis Name</u> | <u>MS %REC</u> | <u>MSD %REC</u> | <u>MS/MSD Limits</u> | <u>RPD</u> | <u>RPD MAX</u> | <u>BKG Conc</u> | <u>DUP Conc</u> | <u>DUP RPD</u> | <u>Dup RPD Max</u> |
|-----------------------------|---|-----------------|----------------------|------------|----------------|-----------------|-----------------|----------------|--------------------|
| Batch number: 14142B94A | Sample number(s): 7467119,7467121,7467123 UNSPK: P468038 | | | | | | | | |
| NWTPH-Gx water C7-C12 | 109 | 109 | 75-135 | 0 | 30 | | | | |
| Batch number: 14142B94B | Sample number(s): 7467125 UNSPK: P468038 | | | | | | | | |
| NWTPH-Gx water C7-C12 | 109 | 109 | 75-135 | 0 | 30 | | | | |
| Batch number: 141396050002A | Sample number(s): 7467119-7467126 UNSPK: 7467123 BKG: 7467123 | | | | | | | | |
| Lead | 104 | 105 | 89-120 | 1 | 20 | 0.17 J | 0.16 J | 1 (1) | 20 |

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PPL + Xylene (total) by 8260

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 05/28/14 at 04:51 PM

Group Number: 1475049

Surrogate Quality Control

Batch number: T141422AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---------|----------------------|-----------------------|------------|----------------------|
| 7467119 | 107 | 95 | 93 | 101 |
| 7467121 | 103 | 97 | 93 | 95 |
| 7467123 | 108 | 98 | 91 | 96 |
| 7467125 | 108 | 98 | 92 | 97 |
| Blank | 108 | 100 | 96 | 94 |
| LCS | 105 | 98 | 92 | 96 |
| LCSD | 101 | 94 | 95 | 98 |

Limits: 80-116 77-113 80-113 78-113

Analysis Name: NWTPH-Gx water C7-C12

Batch number: 14142B94A
Trifluorotoluene-F

| | |
|---------|----|
| 7467119 | 97 |
| 7467121 | 88 |
| 7467123 | 84 |
| Blank | 84 |
| LCS | 95 |
| MS | 98 |
| MSD | 98 |

Limits: 63-135

Analysis Name: NWTPH-Gx water C7-C12

Batch number: 14142B94B
Trifluorotoluene-F

| | |
|---------|----|
| 7467125 | 85 |
| Blank | 83 |
| LCS | 95 |
| MS | 98 |
| MSD | 98 |

Limits: 63-135

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Client: Arcadis

Delivery and Receipt Information

Delivery Method: SeaTac Arrival Timestamp: 05/16/2014 16:15
 Number of Packages: 4 Number of Projects: 1
 State/Province of Origin: WA

Arrival Condition Summary

| | | | |
|--------------------------------------|------------|---------------------------------------|------------|
| Shipping Container Sealed: | <u>Yes</u> | Total Trip Blank Qty: | <u>9</u> |
| Custody Seal Present: | <u>Yes</u> | Trip Blank Type: | <u>HCI</u> |
| Custody Seal Intact: | <u>Yes</u> | Air Quality Samples Present: | <u>No</u> |
| Samples Chilled: | <u>Yes</u> | Air Quality Flow Controllers Present: | <u>N/A</u> |
| Paperwork Enclosed: | <u>Yes</u> | Flow Controller Quantity: | <u>0</u> |
| Samples Intact: | <u>Yes</u> | Air Quality Returns: | <u>N/A</u> |
| Missing Samples: | <u>No</u> | | |
| Extra Samples: | <u>No</u> | | |
| Discrepancy in Container Qty on COC: | <u>No</u> | | |
| Sample IDs on COC match Containers: | <u>Yes</u> | | |
| Sample Date/Times match COC: | <u>Yes</u> | | |
| VOA Vial Headspace \geq 6mm: | <u>No</u> | | |
| VOA IDs (\geq 6mm): | <u>N/A</u> | | |

Unpacked by Wesley Miller (2308) at 18:52 on 05/16/2014

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* All Temperatures in °C.

| Cooler # | Thermometer ID | Corrected Temp | Therm. Type | Ice Type | Ice Present? | Ice Container | <u>Samples Collected Same Day as Receipt?</u> | <u>Elevated Temp?</u> |
|----------|----------------|----------------|-------------|----------|--------------|---------------|---|-----------------------|
| 1 | DT121 | 2.6 | DT | Wet | Y | Bagged | N | N |
| 2 | DT121 | 0.5 | DT | Wet | Y | Bagged | N | N |
| 3 | DT121 | 0.5 | DT | Wet | Y | Bagged | N | N |
| 4 | DT121 | 1.5 | DT | Wet | Y | Bagged | N | N |

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

| | | | |
|----------------------|-----------------------|-----------------|----------------------------------|
| RL | Reporting Limit | BMQL | Below Minimum Quantitation Level |
| N.D. | none detected | MPN | Most Probable Number |
| TNTC | Too Numerous To Count | CP Units | cobalt-chloroplatinate units |
| IU | International Units | NTU | nephelometric turbidity units |
| umhos/cm | micromhos/cm | ng | nanogram(s) |
| C | degrees Celsius | F | degrees Fahrenheit |
| meq | milliequivalents | lb. | pound(s) |
| g | gram(s) | kg | kilogram(s) |
| µg | microgram(s) | mg | milligram(s) |
| mL | milliliter(s) | L | liter(s) |
| m³ | cubic meter(s) | µL | microliter(s) |
| | | pg/L | picogram/liter |

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

Inorganic Qualifiers

| | | | |
|--------------|---|----------|---|
| A | TIC is a possible aldol-condensation product | B | Value is $<$ CRDL, but \geq IDL |
| B | Analyte was also detected in the blank | E | Estimated due to interference |
| C | Pesticide result confirmed by GC/MS | M | Duplicate injection precision not met |
| D | Compound quantitated on a diluted sample | N | Spike sample not within control limits |
| E | Concentration exceeds the calibration range of the instrument | S | Method of standard additions (MSA) used for calculation |
| N | Presumptive evidence of a compound (TICs only) | U | Compound was not detected |
| P | Concentration difference between primary and confirmation columns $>$ 25% | W | Post digestion spike out of control limits |
| U | Compound was not detected | * | Duplicate analysis not within control limits |
| X,Y,Z | Defined in case narrative | + | Correlation coefficient for MSA $<$ 0.995 |

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

February 20, 2014

Project: WA-5544

Submittal Date: 02/14/2014
Group Number: 1452622
PO Number: GP09BPNA.WA39
State of Sample Origin: WA

| <u>Client Sample Description</u> | <u>Lancaster Labs (LL) #</u> |
|----------------------------------|------------------------------|
| MW-2 Water | 7363970 |
| MW-2 Filtered Water | 7363971 |
| MW-5 Water | 7363972 |
| MW-5 Filtered Water | 7363973 |
| MW-6 Water | 7363974 |
| MW-6 Filtered Water | 7363975 |
| DUP-1 Water | 7363976 |
| DUP-1 Filtered Water | 7363977 |
| TRIP BLANK Water | 7363978 |

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

| | | |
|--------------------|--------------------------------|-------------------------|
| ELECTRONIC COPY TO | ARCADIS U.S., Inc. | Attn: Sam Miles |
| ELECTRONIC COPY TO | Atlantic Richfield c/o ARCADIS | Attn: Rory Henneck |
| ELECTRONIC COPY TO | ARCADIS U.S., Inc. | Attn: Richard Rodriguez |

Respectfully Submitted,



Natalie R. Luciano
Senior Specialist

(717) 556-7258

Project Name: WA-5544
LLI Group #: 1452622

General Comments:

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client. The compliance signature is located on the cover page of the Analysis Reports.

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:**SW-846 8260B, GC/MS Volatiles**

Sample #s: 7363974, 7363976

Reporting limits were raised due to sample foaming.

Sample Description: MW-2 Water
WA-5544 COC: R215813
19918 68th Ave S - Kent, WA

LL Sample # WW 7363970
LL Group # 1452622
Account # 13255

Project Name: WA-5544

Collected: 02/12/2014 12:45 by RL

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 02/14/2014 10:00

Reported: 02/20/2014 17:14

68K02

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---|-----------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B | | | | | | |
| 10335 | Benzene | 71-43-2 | 2.7 J | 0.50 | 5.0 | 1 |
| 10335 | Ethylbenzene | 100-41-4 | 430 | 8.0 | 50 | 10 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.50 | 5.0 | 1 |
| 10335 | Toluene | 108-88-3 | 0.71 J | 0.70 | 5.0 | 1 |
| 10335 | Xylene (Total) | 1330-20-7 | 590 | 0.80 | 5.0 | 1 |
| GC Volatiles ECY 97-602 NWTPH-Gx | | | | | | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 7,200 | 250 | 1,300 | 5 |
| Metals SW-846 6010B | | | | | | |
| 07055 | Lead | 7439-92-1 | N.D. | 4.7 | 15.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|-------------------------------|---------------------|--------|--------------|------------------------|----------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | L140482AA | 02/18/2014 07:10 | Christopher G Torres | 1 |
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | L140482AA | 02/18/2014 07:33 | Christopher G Torres | 10 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | L140482AA | 02/18/2014 07:10 | Christopher G Torres | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 2 | L140482AA | 02/18/2014 07:33 | Christopher G Torres | 10 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14050A94A | 02/20/2014 11:38 | Marie D Beamenderfer | 5 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14050A94A | 02/20/2014 11:38 | Marie D Beamenderfer | 5 |
| 07055 | Lead | SW-846 6010B | 1 | 140481848001 | 02/18/2014 20:03 | Maria A Orrs | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140481848001 | 02/18/2014 11:12 | James L Mertz | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-2 Filtered Water
WA-5544 COC: R215813
19918 68th Ave S - Kent, WA

LL Sample # WW 7363971
LL Group # 1452622
Account # 13255

Project Name: WA-5544

Collected: 02/12/2014 12:45 by RL

Atlantic Richfield c/o ARCADIS

Suite 600

Submitted: 02/14/2014 10:00

630 Plaza Drive

Reported: 02/20/2014 17:14

Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|---------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 07055 | Lead | SW-846 6010B 7439-92-1 | ug/l N.D. | ug/l 4.7 | ug/l 15.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|-------------------------------|--------------|--------|--------------|------------------------|---------------|-----------------|
| 07055 | Lead | SW-846 6010B | 1 | 140481848001 | 02/18/2014 20:07 | Maria A Orrs | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140481848001 | 02/18/2014 11:12 | James L Mertz | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-5 Water
WA-5544 COC: R215813
19918 68th Ave S - Kent, WA

LL Sample # WW 7363972
LL Group # 1452622
Account # 13255

Project Name: WA-5544

Collected: 02/12/2014 12:15 by RL

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 02/14/2014 10:00

630 Plaza Drive

Reported: 02/20/2014 17:14

Highlands Ranch CO 80129

68K05

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---|-----------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B | | | | | | |
| 10335 | Benzene | 71-43-2 | 0.98 J | 0.50 | 5.0 | 1 |
| 10335 | Ethylbenzene | 100-41-4 | N.D. | 0.80 | 5.0 | 1 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | 1.8 J | 0.50 | 5.0 | 1 |
| 10335 | Toluene | 108-88-3 | N.D. | 0.70 | 5.0 | 1 |
| 10335 | Xylene (Total) | 1330-20-7 | N.D. | 0.80 | 5.0 | 1 |
| GC Volatiles ECY 97-602 NWTPH-Gx | | | | | | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 150 J | 50 | 250 | 1 |
| Metals SW-846 6010B | | | | | | |
| 07055 | Lead | 7439-92-1 | N.D. | 4.7 | 15.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|-------------------------------|---------------------|--------|--------------|------------------------|----------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | L140482AA | 02/18/2014 04:11 | Christopher G Torres | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | L140482AA | 02/18/2014 04:11 | Christopher G Torres | 1 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14050A94A | 02/20/2014 12:03 | Marie D Beamenderfer | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14050A94A | 02/20/2014 12:03 | Marie D Beamenderfer | 1 |
| 07055 | Lead | SW-846 6010B | 1 | 140481848001 | 02/18/2014 20:18 | Maria A Orrs | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140481848001 | 02/18/2014 11:12 | James L Mertz | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-5 Filtered Water
WA-5544 COC: R215813
19918 68th Ave S - Kent, WA

LL Sample # WW 7363973
LL Group # 1452622
Account # 13255

Project Name: WA-5544

Collected: 02/12/2014 12:15 by RL

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 02/14/2014 10:00

630 Plaza Drive

Reported: 02/20/2014 17:14

Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|---------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 07055 | Lead | SW-846 6010B 7439-92-1 | ug/l N.D. | ug/l 4.7 | ug/l 15.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|-------------------------------|--------------|--------|--------------|------------------------|---------------|-----------------|
| 07055 | Lead | SW-846 6010B | 1 | 140481848001 | 02/18/2014 20:22 | Maria A Orrs | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140481848001 | 02/18/2014 11:12 | James L Mertz | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-6 Water
WA-5544 COC: R215813
19918 68th Ave S - Kent, WA

LL Sample # WW 7363974
LL Group # 1452622
Account # 13255

Project Name: WA-5544

Collected: 02/12/2014 11:15 by RL

Atlantic Richfield c/o ARCADIS
Suite 600

Submitted: 02/14/2014 10:00

630 Plaza Drive

Reported: 02/20/2014 17:14

Highlands Ranch CO 80129

68K06

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---|-----------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B | | | | | | |
| 10335 | Benzene | 71-43-2 | 4.3 J | 2.5 | 25 | 5 |
| 10335 | Ethylbenzene | 100-41-4 | 55 | 4.0 | 25 | 5 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 2.5 | 25 | 5 |
| 10335 | Toluene | 108-88-3 | N.D. | 3.5 | 25 | 5 |
| 10335 | Xylene (Total) | 1330-20-7 | 24 J | 4.0 | 25 | 5 |
| Reporting limits were raised due to sample foaming. | | | | | | |
| GC Volatiles ECY 97-602 NWTPH-Gx | | | | | | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 3,400 | 50 | 250 | 1 |
| Metals SW-846 6010B | | | | | | |
| 07055 | Lead | 7439-92-1 | N.D. | 4.7 | 15.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|-------------------------------|---------------------|--------|--------------|------------------------|----------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | N140492AA | 02/18/2014 22:37 | Andrea E Lando | 5 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | N140492AA | 02/18/2014 22:37 | Andrea E Lando | 5 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14048A94A | 02/18/2014 18:28 | Marie D Beamenderfer | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14048A94A | 02/18/2014 18:28 | Marie D Beamenderfer | 1 |
| 07055 | Lead | SW-846 6010B | 1 | 140481848001 | 02/18/2014 20:26 | Maria A Orrs | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140481848001 | 02/18/2014 11:12 | James L Mertz | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: MW-6 Filtered Water
WA-5544 COC: R215813
19918 68th Ave S - Kent, WA

LL Sample # WW 7363975
LL Group # 1452622
Account # 13255

Project Name: WA-5544

Collected: 02/12/2014 11:15 by RL Atlantic Richfield c/o ARCADIS
Suite 600
Submitted: 02/14/2014 10:00 630 Plaza Drive
Reported: 02/20/2014 17:14 Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|---------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 07055 | Lead | SW-846 6010B 7439-92-1 | ug/l N.D. | ug/l 4.7 | ug/l 15.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|-------------------------------|--------------|--------|--------------|------------------------|---------------|-----------------|
| 07055 | Lead | SW-846 6010B | 1 | 140481848001 | 02/18/2014 20:30 | Maria A Orrs | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140481848001 | 02/18/2014 11:12 | James L Mertz | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: DUP-1 Water
WA-5544 COC: R215813
19918 68th Ave S - Kent, WA

LL Sample # WW 7363976
LL Group # 1452622
Account # 13255

Project Name: WA-5544

Collected: 02/12/2014 by RL

Atlantic Richfield c/o ARCADIS

Submitted: 02/14/2014 10:00

Suite 600

Reported: 02/20/2014 17:14

630 Plaza Drive

Highlands Ranch CO 80129

68KFD

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---|-----------------------------|----------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles | | | | | | |
| | | SW-846 8260B | ug/l | ug/l | ug/l | |
| 10335 | Benzene | 71-43-2 | 4.7 J | 2.5 | 25 | 5 |
| 10335 | Ethylbenzene | 100-41-4 | 51 | 4.0 | 25 | 5 |
| 10335 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 2.5 | 25 | 5 |
| 10335 | Toluene | 108-88-3 | N.D. | 3.5 | 25 | 5 |
| 10335 | Xylene (Total) | 1330-20-7 | 23 J | 4.0 | 25 | 5 |
| Reporting limits were raised due to sample foaming. | | | | | | |
| GC Volatiles | | | | | | |
| | | ECY 97-602 NWTPH-Gx | ug/l | ug/l | ug/l | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | 3,400 | 50 | 250 | 1 |
| Metals | | | | | | |
| | | SW-846 6010B | ug/l | ug/l | ug/l | |
| 07055 | Lead | 7439-92-1 | N.D. | 4.7 | 15.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|-------------------------------|---------------------|--------|--------------|------------------------|----------------------|-----------------|
| 10335 | VOCs 8260 BTEX/MTBE | SW-846 8260B | 1 | N140492AA | 02/18/2014 23:00 | Andrea E Lando | 5 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | N140492AA | 02/18/2014 23:00 | Andrea E Lando | 5 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14048A94A | 02/18/2014 18:53 | Marie D Beamenderfer | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14048A94A | 02/18/2014 18:53 | Marie D Beamenderfer | 1 |
| 07055 | Lead | SW-846 6010B | 1 | 140481848001 | 02/18/2014 20:34 | Maria A Orrs | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140481848001 | 02/18/2014 11:12 | James L Mertz | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: DUP-1 Filtered Water
WA-5544 COC: R215813
19918 68th Ave S - Kent, WA

LL Sample # WW 7363977
LL Group # 1452622
Account # 13255

Project Name: WA-5544

Collected: 02/12/2014 by RL

Atlantic Richfield c/o ARCADIS

Submitted: 02/14/2014 10:00

Suite 600

Reported: 02/20/2014 17:14

630 Plaza Drive

Highlands Ranch CO 80129

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-------------------------|---------------|---------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals Dissolved | | | | | | |
| 07055 | Lead | SW-846 6010B 7439-92-1 | ug/l N.D. | ug/l 4.7 | ug/l 15.0 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|-------------------------------|--------------|--------|--------------|------------------------|---------------|-----------------|
| 07055 | Lead | SW-846 6010B | 1 | 140481848001 | 02/18/2014 20:37 | Maria A Orrs | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140481848001 | 02/18/2014 11:12 | James L Mertz | 1 |

*=This limit was used in the evaluation of the final result

Sample Description: TRIP BLANK Water
WA-5544 COC: R215813
19918 68th Ave S - Kent, WA

LL Sample # WW 7363978
LL Group # 1452622
Account # 13255

Project Name: WA-5544

Collected: 02/12/2014

Atlantic Richfield c/o ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Submitted: 02/14/2014 10:00

Reported: 02/20/2014 17:14

68KTB

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|------------------------|-----------------------|------------|----------------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles | | | SW-846 8260B | ug/l | ug/l | |
| 10335 | Benzene | 71-43-2 | N.D. | 0.50 | 5.0 | 1 |
| 10335 | Ethylbenzene | 100-41-4 | N.D. | 0.80 | 5.0 | 1 |
| 10335 | Toluene | 108-88-3 | N.D. | 0.70 | 5.0 | 1 |
| 10335 | Xylene (Total) | 1330-20-7 | N.D. | 0.80 | 5.0 | 1 |
| GC Volatiles | | | ECY 97-602 NWTPH-Gx | ug/l | ug/l | |
| 08273 | NWTPH-Gx water C7-C12 | n.a. | N.D. | 50 | 250 | 1 |

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|-----------------------|---------------------|--------|-----------|------------------------|----------------------|-----------------|
| 10335 | VOCs 8260 BTEX | SW-846 8260B | 1 | L140482AA | 02/18/2014 00:48 | Christopher G Torres | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | L140482AA | 02/18/2014 00:48 | Christopher G Torres | 1 |
| 08273 | NWTPH-Gx water C7-C12 | ECY 97-602 NWTPH-Gx | 1 | 14048A94A | 02/18/2014 13:01 | Marie D Beamenderfer | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14048A94A | 02/18/2014 13:01 | Marie D Beamenderfer | 1 |

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 02/20/14 at 05:14 PM

Group Number: 1452622

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

| <u>Analysis Name</u> | <u>Blank Result</u> | <u>Blank MDL**</u> | <u>Blank LOQ</u> | <u>Report Units</u> | <u>LCS %REC</u> | <u>LCSD %REC</u> | <u>LCS/LCSD Limits</u> | <u>RPD</u> | <u>RPD Max</u> |
|-----------------------------|---|--------------------|------------------|---------------------|-----------------|------------------|------------------------|------------|----------------|
| Batch number: L140482AA | Sample number(s): 7363970, 7363972, 7363978 | | | | | | | | |
| Benzene | N.D. | 0.50 | 5.0 | ug/l | 94 | | 78-120 | | |
| Ethylbenzene | N.D. | 0.80 | 5.0 | ug/l | 91 | | 79-120 | | |
| Methyl Tertiary Butyl Ether | N.D. | 0.50 | 5.0 | ug/l | 89 | | 75-120 | | |
| Toluene | N.D. | 0.70 | 5.0 | ug/l | 93 | | 80-120 | | |
| Xylene (Total) | N.D. | 0.80 | 5.0 | ug/l | 93 | | 80-120 | | |
| Batch number: N140492AA | Sample number(s): 7363974, 7363976 | | | | | | | | |
| Benzene | N.D. | 0.50 | 5.0 | ug/l | 103 | | 78-120 | | |
| Ethylbenzene | N.D. | 0.80 | 5.0 | ug/l | 101 | | 79-120 | | |
| Methyl Tertiary Butyl Ether | N.D. | 0.50 | 5.0 | ug/l | 89 | | 75-120 | | |
| Toluene | N.D. | 0.70 | 5.0 | ug/l | 109 | | 80-120 | | |
| Xylene (Total) | N.D. | 0.80 | 5.0 | ug/l | 104 | | 80-120 | | |
| Batch number: 14048A94A | Sample number(s): 7363974, 7363976, 7363978 | | | | | | | | |
| NWTPH-Gx water C7-C12 | N.D. | 50. | 250 | ug/l | 108 | 109 | 75-135 | 0 | 30 |
| Batch number: 14050A94A | Sample number(s): 7363970, 7363972 | | | | | | | | |
| NWTPH-Gx water C7-C12 | N.D. | 50. | 250 | ug/l | 100 | | 75-135 | | |
| Batch number: 140481848001 | Sample number(s): 7363970-7363977 | | | | | | | | |
| Lead | N.D. | 4.7 | 15.0 | ug/l | 108 | | 88-110 | | |

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

| <u>Analysis Name</u> | <u>MS %REC</u> | <u>MSD %REC</u> | <u>MS/MSD Limits</u> | <u>RPD</u> | <u>RPD MAX</u> | <u>BKG Conc</u> | <u>DUP Conc</u> | <u>DUP RPD</u> | <u>Dup RPD Max</u> |
|-----------------------------|--|-----------------|----------------------|------------|----------------|-----------------|-----------------|----------------|--------------------|
| Batch number: L140482AA | Sample number(s): 7363970, 7363972, 7363978 UNSPK: P364646 | | | | | | | | |
| Benzene | 97 | 105 | 72-134 | 8 | 30 | | | | |
| Ethylbenzene | 95 | 102 | 71-134 | 7 | 30 | | | | |
| Methyl Tertiary Butyl Ether | 90 | 97 | 72-126 | 7 | 30 | | | | |
| Toluene | 98 | 105 | 80-125 | 7 | 30 | | | | |
| Xylene (Total) | 97 | 103 | 79-125 | 6 | 30 | | | | |
| Batch number: N140492AA | Sample number(s): 7363974, 7363976 UNSPK: P364895 | | | | | | | | |
| Benzene | 108 | 111 | 72-134 | 3 | 30 | | | | |
| Ethylbenzene | 108 | 109 | 71-134 | 1 | 30 | | | | |
| Methyl Tertiary Butyl Ether | 89 | 91 | 72-126 | 2 | 30 | | | | |

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 02/20/14 at 05:14 PM

Group Number: 1452622

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

| <u>Analysis Name</u> | <u>MS</u> <u>%REC</u> | <u>MSD</u> <u>%REC</u> | <u>MS/MSD</u> <u>Limits</u> | <u>RPD</u> <u>RPD</u> | <u>RPD</u> <u>MAX</u> | <u>BKG</u> <u>Conc</u> | <u>DUP</u> <u>Conc</u> | <u>DUP</u> <u>RPD</u> | <u>Dup RPD</u> <u>Max</u> |
|---|--------------------------|---------------------------|--------------------------------|--------------------------|--------------------------|---------------------------|---------------------------|--------------------------|------------------------------|
| Toluene | 114 | 115 | 80-125 | 1 | 30 | | | | |
| Xylene (Total) | 109 | 110 | 79-125 | 1 | 30 | | | | |
| Batch number: 14050A94A Sample number(s): 7363970,7363972 UNSPK: P364208 | | | | | | | | | |
| NWTPH-Gx water C7-C12 | 120 | 122 | 75-135 | 1 | 30 | | | | |
| Batch number: 140481848001 Sample number(s): 7363970-7363977 UNSPK: P363915 BKG: P363915 | | | | | | | | | |
| Lead | 106 | 104 | 75-125 | 2 | 20 | N.D. | N.D. | 0 (1) | 20 |

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PPL + Xylene (total) by 8260
Batch number: L140482AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---------|----------------------|-----------------------|------------|----------------------|
| 7363970 | 108 | 106 | 100 | 98 |
| 7363972 | 106 | 105 | 99 | 97 |
| 7363978 | 107 | 106 | 99 | 96 |
| Blank | 107 | 105 | 99 | 96 |
| LCS | 107 | 105 | 101 | 99 |
| MS | 107 | 106 | 101 | 99 |
| MSD | 107 | 105 | 101 | 99 |
| Limits: | 80-116 | 77-113 | 80-113 | 78-113 |

Analysis Name: PPL + Xylene (total) by 8260
Batch number: N140492AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---------|----------------------|-----------------------|------------|----------------------|
| 7363974 | 99 | 101 | 97 | 96 |
| 7363976 | 99 | 102 | 97 | 97 |
| Blank | 103 | 102 | 97 | 91 |
| LCS | 100 | 101 | 102 | 101 |
| MS | 100 | 99 | 102 | 101 |
| MSD | 100 | 104 | 101 | 99 |
| Limits: | 80-116 | 77-113 | 80-113 | 78-113 |

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 14048A94A

| | Trifluorotoluene-F |
|---------|--------------------|
| 7363974 | 98 |
| 7363976 | 98 |
| 7363978 | 87 |
| Blank | 95 |

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Atlantic Richfield c/o ARCADIS
Reported: 02/20/14 at 05:14 PM

Group Number: 1452622

Surrogate Quality Control

LCS 91
LCSD 92

Limits: 63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 14050A94A
Trifluorotoluene-F

7363970 87
7363972 89
Blank 87
LCS 90
MS 110
MSD 111

Limits: 63-135

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Client: Arcadis

WA 5544

Delivery and Receipt Information

Delivery Method: UPS Arrival Timestamp: 02/14/2014 10:00
 Number of Packages: 1 Number of Projects: 1
 State/Province of Origin: WA

Arrival Condition Summary

| | | | |
|--------------------------------------|------------|---------------------------------------|------------|
| Shipping Container Sealed: | <u>Yes</u> | Total Trip Blank Qty: | <u>4</u> |
| Custody Seal Present: | <u>Yes</u> | Trip Blank Type: | <u>HCI</u> |
| Custody Seal Intact: | <u>Yes</u> | Air Quality Samples Present: | <u>No</u> |
| Samples Chilled: | <u>Yes</u> | Air Quality Flow Controllers Present: | <u>N/A</u> |
| Paperwork Enclosed: | <u>Yes</u> | Flow Controller Quantity: | <u>0</u> |
| Samples Intact: | <u>Yes</u> | Air Quality Returns: | <u>N/A</u> |
| Missing Samples: | <u>No</u> | | |
| Extra Samples: | <u>No</u> | | |
| Discrepancy in Container Qty on COC: | <u>No</u> | | |
| Sample IDs on COC match Containers: | <u>Yes</u> | | |
| Sample Date/Times match COC: | <u>Yes</u> | | |
| VOA Vial Headspace \geq 6mm: | <u>No</u> | | |
| VOA IDs (\geq 6mm): | <u>N/A</u> | | |

Unpacked by Wesley Miller (2308) at 12:37 on 02/14/2014

Samples Chilled Details: WA 5544

Thermometer Types: DT = Digital IR = Infrared

| Cooler # | Thermometer ID | Raw Temp (°C) | Corrected Temp (°C) | Thermometer Type | Ice Type | Ice Present? | Ice Container | Elevated Temp? |
|----------|----------------|---------------|---------------------|------------------|----------|--------------|---------------|----------------|
| 1 | DT121 | 1.0 | 1.0 | DT | Wet | Y | Bagged | N |

General Comments:

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

| | | | |
|----------------------|-----------------------|-----------------|----------------------------------|
| RL | Reporting Limit | BMQL | Below Minimum Quantitation Level |
| N.D. | none detected | MPN | Most Probable Number |
| TNTC | Too Numerous To Count | CP Units | cobalt-chloroplatinate units |
| IU | International Units | NTU | nephelometric turbidity units |
| umhos/cm | micromhos/cm | ng | nanogram(s) |
| C | degrees Celsius | F | degrees Fahrenheit |
| meq | milliequivalents | lb. | pound(s) |
| g | gram(s) | kg | kilogram(s) |
| µg | microgram(s) | mg | milligram(s) |
| mL | milliliter(s) | L | liter(s) |
| m³ | cubic meter(s) | µL | microliter(s) |
| | | pg/L | picogram/liter |

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

- A** TIC is a possible aldol-condensation product
- B** Analyte was also detected in the blank
- C** Pesticide result confirmed by GC/MS
- D** Compound quantitated on a diluted sample
- E** Concentration exceeds the calibration range of the instrument
- N** Presumptive evidence of a compound (TICs only)
- P** Concentration difference between primary and confirmation columns $>25\%$
- U** Compound was not detected
- X,Y,Z** Defined in case narrative

Inorganic Qualifiers

- B** Value is $<$ CRDL, but \geq IDL
- E** Estimated due to interference
- M** Duplicate injection precision not met
- N** Spike sample not within control limits
- S** Method of standard additions (MSA) used for calculation
- U** Compound was not detected
- W** Post digestion spike out of control limits
- *** Duplicate analysis not within control limits
- +** Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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