February 27, 2019

Mr. Greg Rainwater
Senior Project Manager
AT&T Services, Inc.
308 S. Akard Street, Room 1700
Dallas, Texas 75202

**Re: 2017 Monitoring Report**
**AT&T Data Center**
**20307 North Creek Parkway**
**Bothell, Washington 98011**
**Department of Ecology TCP No. NW2011**
**Facility ID No. 3706871**

Dear Mr. Rainwater,

Please find enclosed the 2017 Monitoring Report for the above-referenced site. This report presents the results from monitoring and sampling activities performed at the site in April 2017 and July 2017.

If you have any questions, please do not hesitate to contact me at (503 924-4704.

Sincerely,

**Apex Companies, LLC**



John Foxwell, L.Hg.
Principal

# 2017 Monitoring Report

**AT&T Data Center**
**20307 North Creek Parkway**
**Bothell, Washington 98011**
**Department of Ecology TCP No. NW2011**
**Facility ID No. 3706871**

**Prepared for**:

AT&T Services, Inc.
308 S. Akard Street, Room 1700
Dallas, Texas 75202

February 27, 2019
Apex Job No: 320002337-00

# *2017 Monitoring Report*

*AT&T Data Center*
*20307 North Creek Parkway*
*Bothell, Washington 98011*
*Department of Ecology TCP No. NW2011*
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*John Foxwell, LHG #1778*
*Principal*

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## 1.0 INTRODUCTION

This 2017 Monitoring Report presents the results of groundwater, surface water, ambient air, and soil vapor sampling and analysis performed between April 2017 and October 2017 at the AT&T Data Center, 20307 North Creek Parkway, Bothell, Washington (Site), see Figure 1 and Figure 2. Apex Companies, LLC (Apex), conducted the monitoring and sampling activities for the site on behalf of AT&T Services, Inc. Groundwater elevations were measured on April 6, 2017, and groundwater sampling occurred on April 6-7, 2017, April 24, 2017, and October 17, 2017. Vapor sampling (soil vapor and ambient air) occurred July 25-26, 2017 and October 16, 2017.

The objectives of the 2017 monitoring included:

- Collecting groundwater samples from site-wide monitoring wells, including additional wells that historically have not been sampled (e.g. wells inside the AT&T generator building);
- Determine the natural groundwater flow direction while Site extraction wells are turned off;
- Evaluate the groundwater contaminant concentrations while Site extraction wells are turned off; and
- Conduct vapor intrusion screening to determine if a contaminant vapor plume exists beneath or within the AT&T generator building.

Groundwater samples were collected from monitoring wells (MW-1 through MW-8). observation wells (OW-1 through OW-3), piezometer wells (B19 through B21 and B25 through B28), and extraction wells (EW-2, EW-4, EW-5, and EW-7). Samples were analyzed for diesel range organics (DRO) by method NWTPH-Dx, and for benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8260B.

## 2.0 SITE DESCRIPTION AND BACKGROUND

The AT&T data center is located within the Schnitzer North Creek business campus in Bothell, Washington. The Site is approximately 8.13-acres and is bordered by additional business park buildings and a wetland to the north, Interstate 405 to the west, additional business park buildings to the south, and North Creek Parkway and additional business park buildings and a creek (North Creek) to the east. The Site was built on top of an expansive wetland area with construction of the AT&T facility beginning in 2000.

In August 2008, an above ground storage tank (AST) located along the west wall of the generator building was found to have released approximately 10,000-gallons of diesel fuel. In response to the release, several vacuum trucks removed diesel fuel and water from downstream storm drains while jet rodding was performed to purge contamination. Downgradient stormwater lines were sealed off to prevent infiltration of diesel fuel and the retention pond was routinely monitored for sheen. Additionally, AT&T designed and installed a stormwater bypass immediately upstream of the spill to divert stormwater around the impacted area. AT&T conducted soil excavation to remove diesel fuel impacted soils at the limits shown on Figure 2. The emergency response and subsequent remedial actions were reported to be successful in containing the diesel spill within the AT&T property boundaries (Shaw Environmental, 2010).

Eight groundwater monitoring wells (MW-1 through MW-8), ten extraction wells (EW-1 through EW-10), three observation wells (OW-1 through OW-3) and seven piezometer wells (B19-B21 and B25-B28) were installed in response to Site remediation. Groundwater analytical results from 2009 through 2016 showed groundwater concentrations below the Model Toxics Control Act (MTCA) Method A Groundwater Cleanup Levels for diesel range organics (DRO), heavy oils and for benzene, toluene, ethyl benzene, and xylenes (BTEX) from monitoring wells (MW-1 through

MW-7) located along the Site's perimeter (two exceptions during this time period were for heavy oil concentrations found in MW-2 and MW-4 in March 2014).

The monitoring well closest to the release area, MW-8, has shown analytical results from 2012 through 2016 below the Model Toxics Control Act (MTCA) Method A Groundwater Cleanup Levels for heavy oils and BTEX (with limited exception); however, concentrations of DRO range from 970 micrograms per liter [µg/L] to 3,500 µg/L, above the MTCA Method A Cleanup Level for DRO is 500 µg/L). Concentrations in MW-8 are influenced by seasonal groundwater table fluctuations.

In July 2013, a continuous-operation groundwater remediation system was installed to replace the recurring use of a vacuum truck to pump and extract residual petroleum hydrocarbon contaminants. The primary objective of this system is to protect the storm sewer line that traverses the southern portion of the site. The system consists of pneumatic diaphragm groundwater recovery pumps powered by a 5-horsepower air compressor. Groundwater is pumped to an oil/water separator (OWS), which removes the light non-aqueous phase liquid (LNAPL) from the groundwater before the groundwater is discharged to the city of Bothell's sanitary sewer through Permit/Discharge Authorization No. 813-02 with King County. The separated LNAPL then stays within a 120-gallon holding tank as part of the OWS system for later disposal by a third-party waste disposal contractor.

## 3.0 FIELD ACTIVITIES AND PROCEDURES

This section discusses activities and procedures related to the 2017 groundwater, surface water, ambient air, and soil vapor monitoring events conducted in 2017.

### Site Geology and Hydrogeology

Well logs collected from the Site and historical well logs from adjacent properties show geologic deposits predominantly to be floodplain alluvial silts and sands underlain by a bed of peat. The alluvial sands and silts with a peat bed at the base of the alluvial deposits, define a shallow unconfined aquifer unit with depths ranging from 3.5-feet to 7-feet bgs. The groundwater flow direction for the shallow unconfined aquifer is generally to the south, with some local variation. Water levels measured during the monitoring events are summarized in Table 1 and groundwater contours are shown on Figures 3 and 4.

### Well Survey

Eight monitoring wells (MW-1 through MW-8), three observation wells (OW-1 through OW-3), seven piezometer wells (B19 through B21 and B25 through B28), and ten extraction wells (EW-1 through EW-10) are presently located on the Site. Currently, the eight monitoring wells are exclusively subject to long-term groundwater monitoring. The existing site plan's survey was updated to include the extraction wells and observation wells. Apex retained a licensed surveyor (Goldsmith Land Development Services) to survey the property features, well locations and top of well casing elevations on June 20, 2017.

### Groundwater Elevations

The depth to groundwater was measured in all monitoring wells on April 6, 2017 and October 18, 2017 using an electronic water level indicator. The North side of the top of the well casings was used as a reference when measuring the depth to groundwater. Groundwater elevations ranged from 30 feet to 34 feet above mean sea level (MSL) during the April event and 29 feet to 34 feet during the October event (Table 1),

Groundwater gauging and elevation data are summarized in Table 1. Figures 3 and 4 show the estimated groundwater flow direction for the April and October events. The estimated groundwater flow direction is towards the south, with some local variation.

Light non-aqueous phase liquids (LNAPL) were observed during the April event at wells: B-19, B-20, B-25, B-26, OW-1, OW-2 and during the October event at wells: MW-8, B-19, B-20, B-21, OW-2, OW-3. LNAPL thickness varied between 0.01 and 12.00 inches during the April sampling event and 0.01 and 0.25 inches during the October sampling event. LNAPL was primarily found in the B-series piezometer wells and observation wells located within the generator building along its southwest side.

**Groundwater Sampling from Monitoring Wells**

Groundwater samples were collected from eight monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, and MW-8), seven piezometer wells (B-19,B-20, B-21, B-25, B-26, B-27, B-28), four extraction wells (EW-2, EW-4, EW-5, EW-7), and three observation wells (OW-1, OW-2, OW-3)during sampling events in April 2017 and October 2017 The wells were purged prior to sampling with a peristaltic pump using low-flow sampling techniques, and clean polyethylene (LDPE) tubing. Field measurements, including pH, electrical conductivity, oxidation-reduction potential (ORP), and water temperature, were obtained during purging and recorded on monitoring well data sheets. Purging was considered complete when three consecutive readings were within +/- 0.1 standard unit for pH, +/- 0.5 degree Celsius (ºC) for temperature, and +/- 10 percent for conductivity. After purging, groundwater samples were collected using a peristaltic pump. Samples were labeled and placed in ice-cooled chests for transport to ESC Lab Sciences using chain-of-custody protocols. Samples were submitted for analysis of volatile and semi-volatile organic compounds by EPA method 8260-C and NW TPH-Dx, which quantifies diesel and recoverable range hydrocarbons.

**Storm Water Sampling**

Stormwater samples were collected from three storm drains within the subject property at the locations shown on Figure 2. A peristaltic pump was used to collect stormwater samples in SW-1, SW-2, and SW-3 (Table 2).

**Soil Vapor and Ambient Air Sampling**

Soil vapor and ambient air sampling were completed at three (3) interior, sub-slab soil vapor monitoring points and two (2) interior ambient air locations, see Figure 5. Sub-slab soil vapor samples were collected via VaporPin® points SV-1, SV-2, and SV-3, within the generator building slab. Sub-slab soil vapor samples were collected on July 25, 2017, and were sampled using lab certified, 6-Liter Summa canisters for a duration of approximately 30-minutes. Leak detection during sampling consisted of using a tracer compound of isopropyl alcohol positioned in close proximity to all associated sample canister fittings (flow controllers and Summa canister connections). Sub-slab soil vapor samples were analyzed for the full suite of volatile organic compounds by EPA method TO-15.

Ambient air quality samples were collected from two areas within the generator building. The air samples were collected in Selective Ion Monitoring (SIM) certified, 6-Liter Summa canisters for a duration of approximately 8-hours. Ambient air samples were analyzed for volatile organic compounds by EPA method TO-15 SIM.

## 4.0 GROUNDWATER SAMPLING RESULTS

The groundwater monitoring results from April and October 2017 indicated the following:

- In April and October, concentrations of diesel and oil range hydrocarbons and BTEX compounds were below MTCA Method A cleanup levels in all monitoring wells, except MW-8 which exceeded cleanup levels.

- In October 2017, the diesel range hydrocarbon concentration increased significantly compared to prior events and was the highest concentration recorded in MW-8, although BTEX compounds were below cleanup levels in MW-8

- In April and October, concentrations of diesel and/or oil range hydrocarbons were detected above the MTCA Method A groundwater cleanup levels in the observation wells (OW series), piezometers (P-series) and extraction wells (EW series), with the exception of BTEX compounds, were below MTCA Method A cleanup levels in EW-7 (April and October) and B-28 (April only).

In summary, diesel and oil range hydrocarbons are present in excess of MTCA Method A Cleanup levels at areas near the release (MW-8, as well as the OW-series wells and P-series piezometers), as well as the extraction wells near associated with the treatment system. Downgradient monitoring wells do not show significant impacts from the release.

## 5.0 STORMWATER RESULTS

The results of the April 2017 stormwater monitoring from SW-1, SW-2, and SW-3 are provided at the end of Table 2 and summarized on Figure 5. The results indicate the following:

- Concentrations of petroleum hydrocarbons were generally not detected. The only exception included an estimated concentration diesel range hydrocarbons (87.1 µg/L detected) in SW-1.

- Concentrations of BTEX compounds are below King County discharge screening levels for surface water discharge to sewer systems.

- Concentrations of diesel and oil range hydrocarbons and BTEX compounds are below MTCA Method A cleanup levels for groundwater.

## 6.0 SOIL VAPOR AND AMBIENT AIR SAMPLING RESULTS

Soil vapor samples were collected at three locations in July (Figure 6; Table 4). Several petroleum VOCs (volatile organic compounds; toluene, trimethylbenzene, xylenes), halogenated VOCs, and other VOCs were detected. However, none of the detected compounds exceeded MTCA Method B soil vapor screening levels.

Ambient air samples were collected in July and October (Figure 6; Table 4). The results indicated:

- Ambient Air – benzene and carbon tetrachloride in AMB-1 and AMB-2, as well as chloroform in AMB-1, were detected above MTCA Method B cleanup levels; and

- Chloromethane, ethylbenzene, and tetrachloroethene were detected below MTCA Method A cleanup levels in AMB-1 and AMB-2.

Benzene and ethylbenzene may originate from the site, but these concentrations are all well within the range of concentrations expected from anthropogenic background sources. Additionally, benzene was not detected in soil vapor samples, further suggesting this benzene is not site derived.

## 7.0 CONCLUSIONS AND RECOMMENDATIONS

The 2017 monitoring activities indicate the following conclusions:

- Groundwater monitoring results indicate that petroleum hydrocarbons are not migrating offsite, based on the concentrations of diesel and oil range hydrocarbons in MW-1, MW-2, MW-3, MW-4, and MW-7;
- Groundwater cleanup level exceedances are limited to diesel and oil range hydrocarbons, and the areas of exceedances are located near the release area and storm sewer extraction wells;
- Up to several inches of LNAPL is present in the OW-series and P-series wells; and
- The diesel and oil range hydrocarbons in the vicinity of the release area do not represent a source area for vapor intrusion.

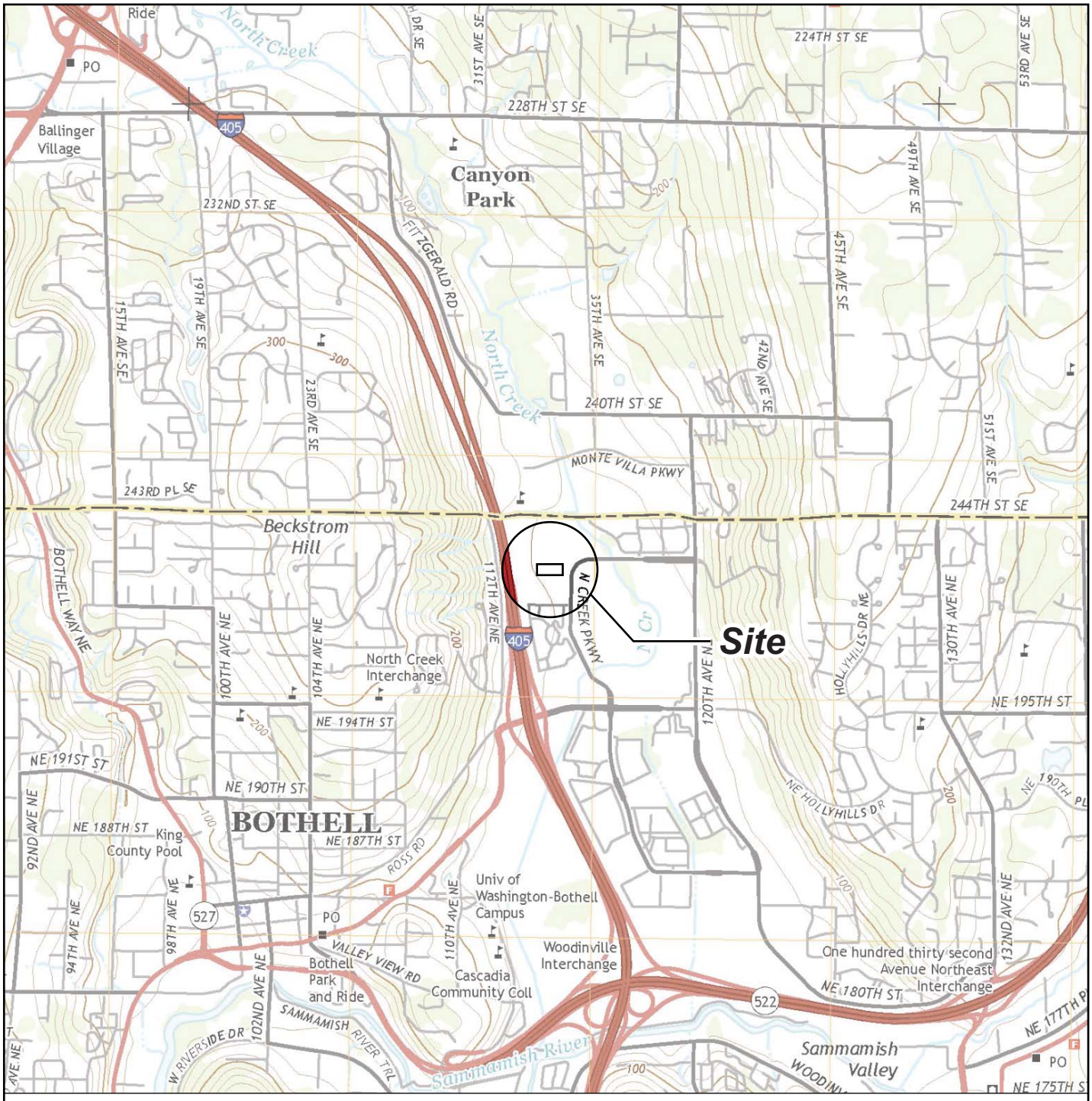
Based on the conclusions above, Apex offers the following recommendations for 2018 monitoring:

- During first quarter 2018, complete product gauging with an oil-water interface probe and subsequently conduct LNAPL recovery from each well containing measurable LNAPL. This would be conducted twice-monthly for 4 or 5 events to evaluate whether a significant source of hydrocarbons remains under the building slab.
- Conduct an expanded ambient air monitoring program, including interior and exterior background samples placed away from the release area. By collecting samples near the release area and at background locations, a determination can be made as to whether the benzene and other VOCs in the ambient air samples are from background sources.
- Complete quarterly stormwater sampling while the system is shut off to verify that the stormwater quality in the storm sewer is not being degraded as a result of the extraction system being discontinued.
- Continue the semi-annual groundwater monitoring program.

Once these data are collected, sufficient information will be available to evaluate each exposure pathway at the site and prepare a Remedial Investigation and Feasibility Study report for the site.

# *Figures*

**Site Location Map**
**Site Plan**
**Groundwater Elevation Maps**
**Contaminant Concentration Map**
**Air and Soil Vapor Sampling Locations**




***Note:*** Base map prepared from USGS 7.5-minute quadrangle of Bothell, WA, dated 2014 as provided by USGS.gov.

0 2,000 4,000

Approximate Scale in Feet



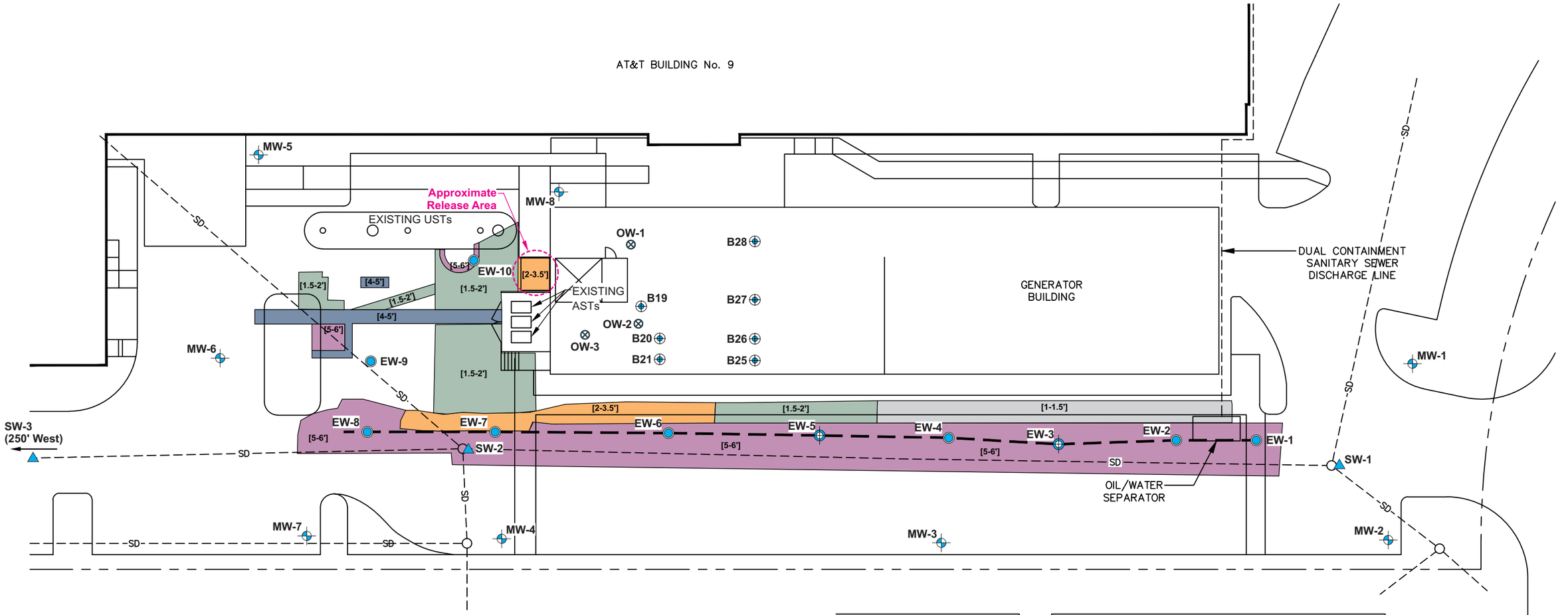

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# Site Location Map

AT&T Data Center
20307 North Creek Parkway
Bothell, Washington

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

| Project Number | 2337-00 | Figure |
|---|---|---|
| February 2019 | | 1 |




***Legend:***

- MW-7 — Monitoring Well Location
- EW-6 — Extraction Well Location
- EW-3 — Extraction Well with Pump
- OW-1 — Observation Well Location
- B19 — Piezometer Location
- SW-1 — Stormwater Swale Location
- Property Line
- Impermeable Liner
- SD — Existing Storm Darin

- Excavated from 1 to 1.5 Feet (BGS)
- Excavated from 1.5 to 2 Feet (BGS)
- Excavated from 2 to 3.5 Feet (BGS)
- Excavated from 4 to 5 Feet (BGS)
- Excavated from 5 to 6 Feet (BGS)

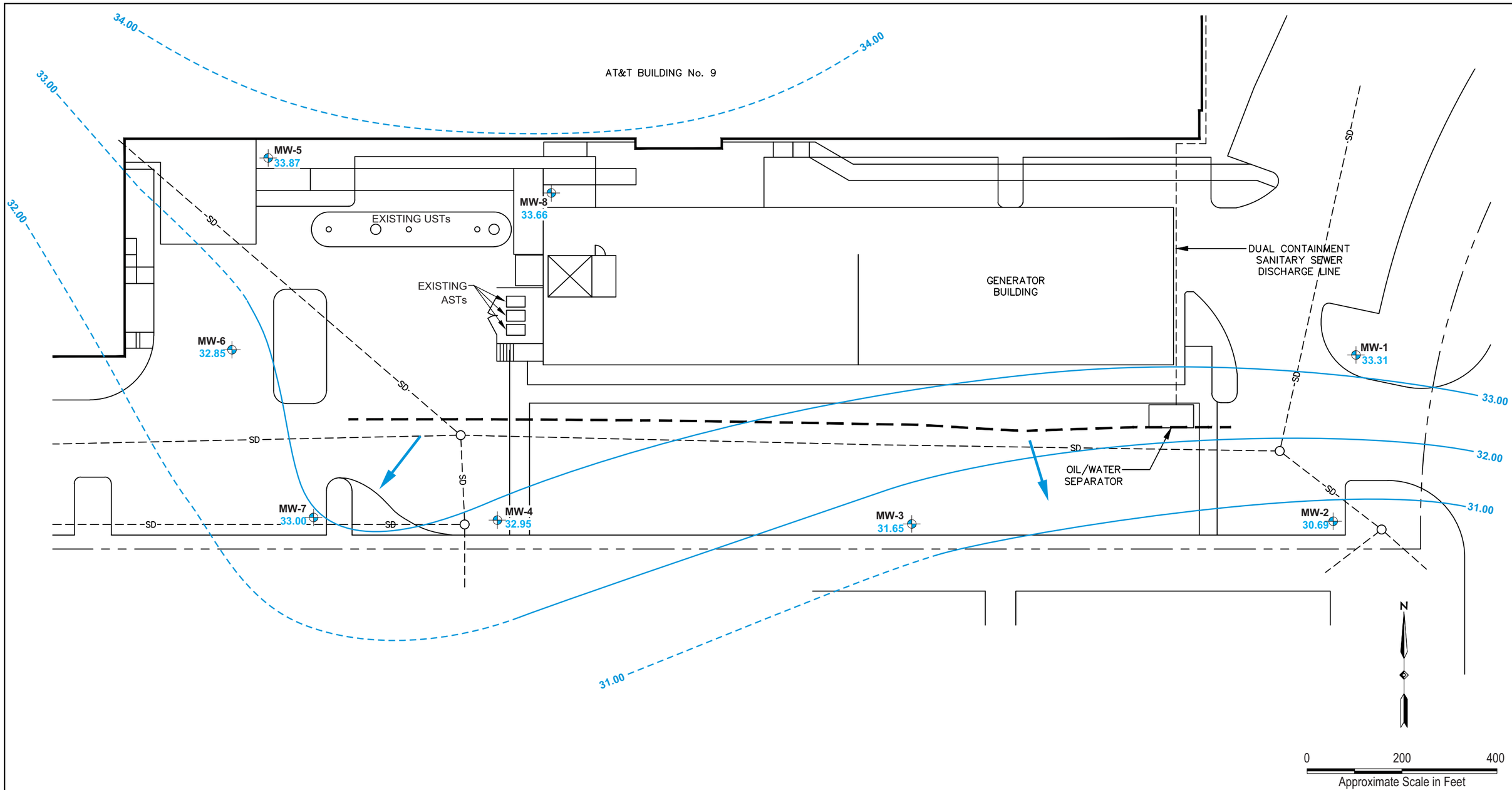
**NOTE:** Base map prepared from a Groundwater Monitoring, Extraction and Observation Well Location Map by CBI Environmental (2017). Excavation depth based on Shaw, 2010.

# Site Plan

AT&T Data Center
20307 North Creek Parkway
Bothell, Washington

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

| Project Number | 2337-00 | Figure |
|---|---|---|
| February 2019 | | 2 |




***Legend:***

- MW-7 — Monitoring Well Location
- Property Line
- Impermeable Liner
- SD — Existing Storm Drain
- 33.00 — Groundwater Elevation in Feet
- 31 — Groundwater Elevation Contour in Feet (Dashed Where Inferred)
- Inferred Groundwater Flow Direction

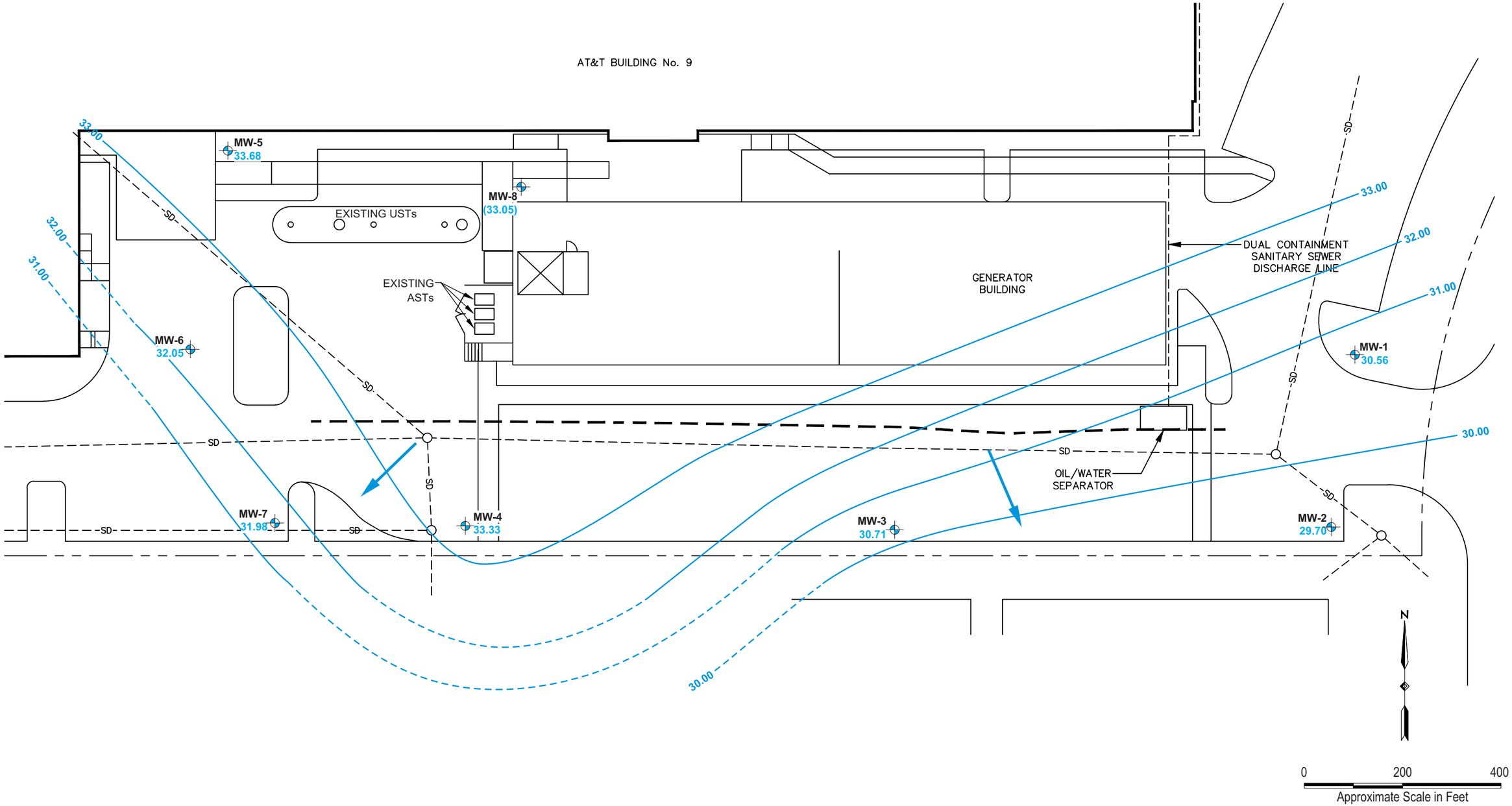
**NOTE:** Base map prepared from a Groundwater Monitoring, Extraction and Observation Well Location Map by CBI Environmental (2017). Excavation depth based on Shaw, 2010.

# Groundwater Elevation Map - April 2017

AT&T Data Center
20307 North Creek Parkway
Bothell, Washington

APEX
Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

| Project Number | 2337-00 | Figure |
|---|---|---|
| February 2019 | | 3 |




***Legend:***

| | | | |
|---|---|---|---|
| MW-7 | Monitoring Well Location | 31.98 | Groundwater Elevation in Feet |
| —— – – —— | Property Line | (33.05) | Groundwater Elevation Not used for Contouring |
| — — — — | Impermeable Liner | 31 | Groundwater Elevation Contour in Feet (Dashed Where Inferred) |
| ——SD—— | Existing Storm Drain | | Inferred Groundwater Flow Direction |

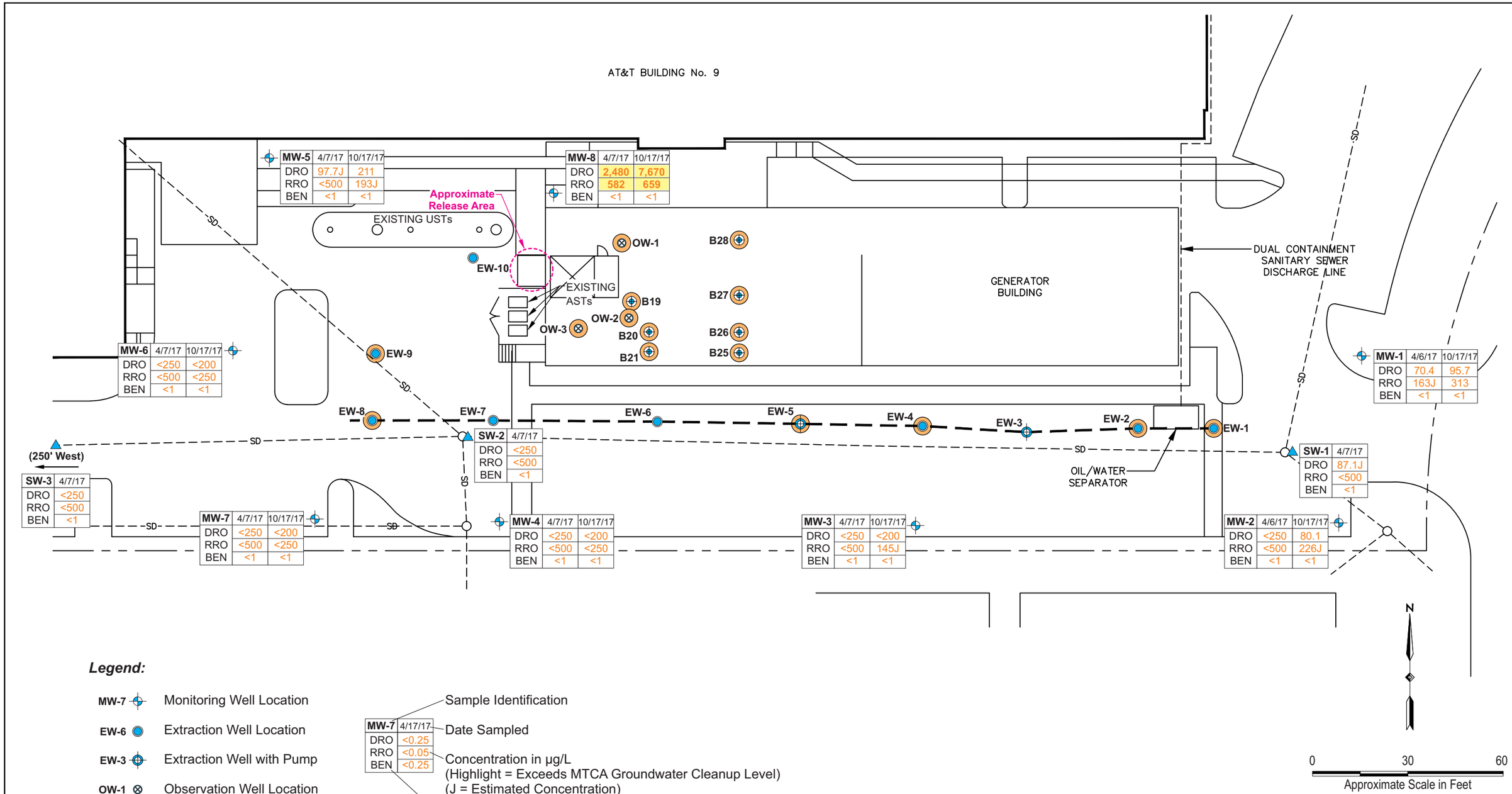
**NOTE:** Base map prepared from a Groundwater Monitoring, Extraction and Observation Well location Map by CBI Environmental (2017).

# Groundwater Elevation Map - October 2017

AT&T Data Center
20307 North Creek Parkway
Bothell, Washington

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

| Project Number | 2337-00 | Figure |
|---|---|---|
| February 2019 | | 4 |




***Legend:***

- MW-7 — Monitoring Well Location
- EW-6 — Extraction Well Location
- EW-3 — Extraction Well with Pump
- OW-1 — Observation Well Location
- B19 — Piezometer Location
- SW-1 — Stormwater Swale Location
- Property Line
- Impermeable Liner
- SD — Existing Storm Darin

| MW-7 | 4/17/17 |
|---|---|
| DRO | <0.25 |
| RRO | <0.05 |
| BEN | <0.25 |

- Sample Identification
- Date Sampled
- Concentration in µg/L (Highlight = Exceeds MTCA Groundwater Cleanup Level) (J = Estimated Concentration)
- Analyte Sampled

Observation Well or Recovery Well Exceeds MTCA Method A Groundwater Cleanup Level

| Abbreviations | | MTCA Method A Groundwater Cleanup Level (µg/L) |
|---|---|---|
| DRO | Diesel-Range Organics | 500 |
| RRO | Residual-Range Organics | 500 |
| BEN | Benzene | 5 |

**NOTE:** Base map prepared from a Groundwater Monitoring, Extraction and Observation Well Location Map by CBI Environmental (2017). Excavation depth based on Shaw, 2010.

# Groundwater Results

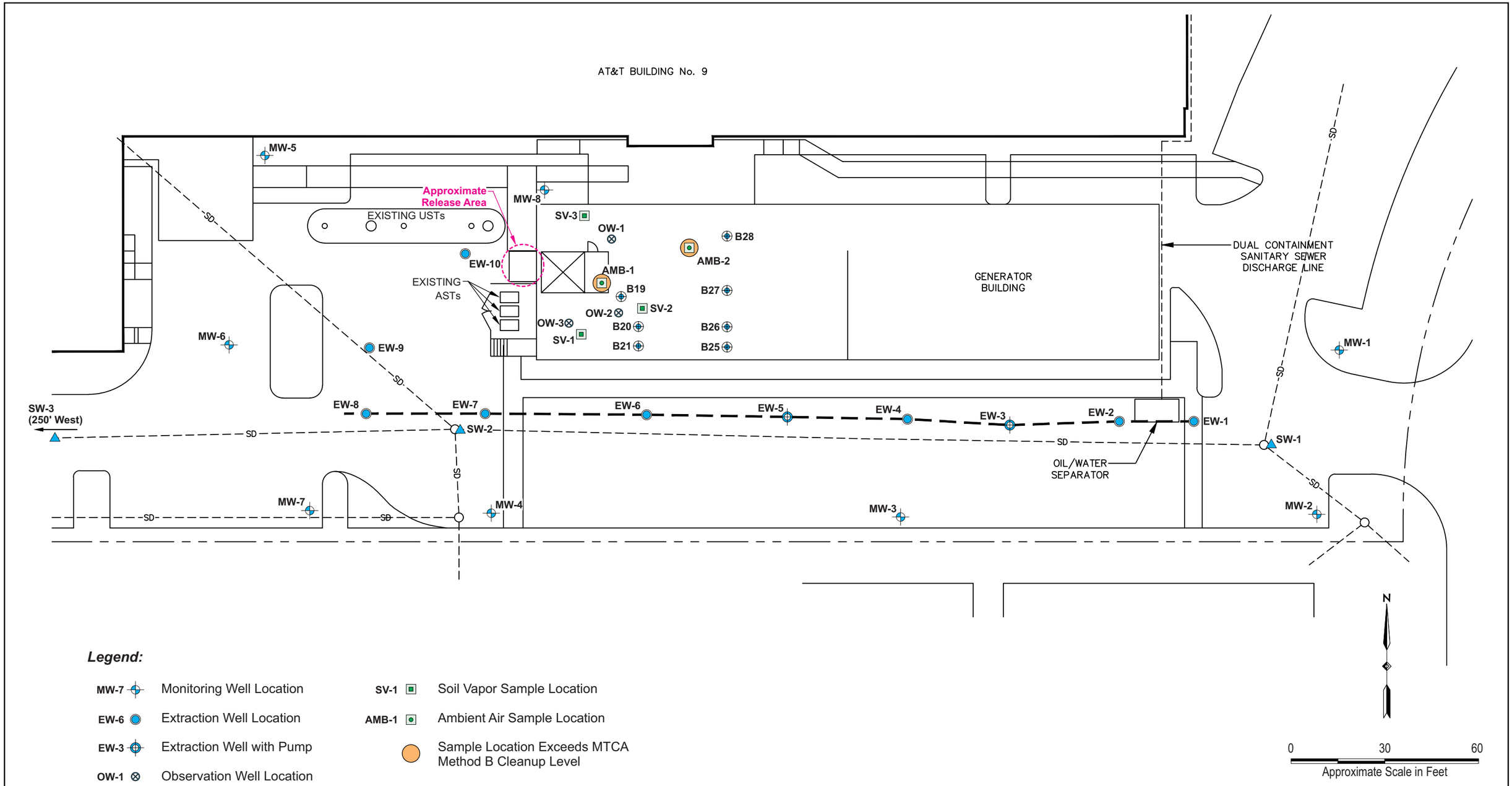
AT&T Data Center
20307 North Creek Parkway
Bothell, Washington

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number 2337-00

February 2019

Figure 5




***Legend:***

- MW-7 — Monitoring Well Location
- EW-6 — Extraction Well Location
- EW-3 — Extraction Well with Pump
- OW-1 — Observation Well Location
- B19 — Piezometer Location
- SW-1 — Stormwater Swale Location
- Property Line
- Impermeable Liner
- SD — Existing Storm Darin
- SV-1 — Soil Vapor Sample Location
- AMB-1 — Ambient Air Sample Location
- Sample Location Exceeds MTCA Method B Cleanup Level

**NOTE:** Base map prepared from a Groundwater Monitoring, Extraction and Observation Well Location Map by CBI Environmental (2017). Excavation depth based on Shaw, 2010.

# Air and Soil Vapor Sampling Locations

AT&T Data Center
20307 North Creek Parkway
Bothell, Washington

APEX
Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

| Project Number | 2337-00 | Figure |
|---|---|---|
| February 2019 | | 6 |

# *Tables*

## Groundwater Analytical Data
## Groundwater Elevation Data

Table 1
Water Table Elevations
AT&T Data Center
Bothell, WA

| Well ID | Measurement Date | Top Of Casing Elevation (Feet MSL) | Depth to Water (Feet) | Depth to SPH (Feet) | SPH Thickness (Inches) | Groundwater Elevation (Feet MSL) |
|---|---|---|---|---|---|---|
| MW-1 | 9/30/2008 | 36.12 | 5.27 | -- | -- | 30.85 |
| | 1/12/2009 | | 2.89 | -- | -- | 33.23 |
| | 4/8/2009 | | 3.72 | -- | -- | 32.4 |
| | 7/8/2009 | | 4.41 | -- | -- | 31.71 |
| | 10/28/2009 | | 3.34 | -- | -- | 32.78 |
| | 4/6/2010 | | 4.07 | -- | -- | 32.05 |
| | 10/6/2010 | | 4.59 | -- | -- | 31.53 |
| | 3/10/2011 | | 1.68 | -- | -- | 34.44 |
| | 9/15/2011 | | 4.87 | -- | -- | 31.25 |
| | 3/15/2012 | | 0.99 | -- | -- | 35.13 |
| | 10/5/2012 | | 4.88 | -- | -- | 31.24 |
| | 3/1/2013 | | 2.71 | -- | -- | 33.41 |
| | 10/8/2013 | | 3.45 | -- | -- | 32.67 |
| | 3/17/2014 | | 1.7 | -- | -- | 34.42 |
| | 9/24/2014 | | 1.73 | -- | -- | 34.39 |
| | 3/25/2015 | | 3.3 | -- | -- | 32.82 |
| | 9/29/2015 | | 4.73 | -- | -- | 31.39 |
| | 6/2/2016 | | 4.28 | -- | -- | 31.84 |
| | 12/14/2016 | | 2.88 | -- | -- | 33.24 |
| | 4/6/2017 | 35.84 | 2.53 | -- | -- | 33.31 |
| | 10/18/2017 | | 5.28 | -- | -- | 30.56 |
| MW-2 | 9/30/2008 | 35.55 | 8.02 | -- | -- | 27.53 |
| | 1/12/2009 | | 4.37 | -- | -- | 31.18 |
| | 4/8/2009 | | 5.05 | -- | -- | 30.50 |
| | 7/8/2009 | | 5.91 | -- | -- | 29.64 |
| | 10/28/2009 | | 4.65 | -- | -- | 30.90 |
| | 4/6/2010 | | 5.24 | -- | -- | 30.31 |
| | 10/6/2010 | | 5.94 | -- | -- | 29.61 |
| | 3/10/2011 | | 4.32 | -- | -- | 31.23 |
| | 9/15/2011 | | 5.99 | -- | -- | 29.56 |
| | 3/15/2012 | | 4.32 | -- | -- | 31.23 |
| | 10/5/2012 | | 6.05 | -- | -- | 29.50 |
| | 3/1/2013 | | 5.20 | -- | -- | 30.35 |
| | 10/8/2013 | | 5.88 | -- | -- | 29.67 |
| | 3/17/2014 | | 4.66 | -- | -- | 30.89 |
| | 9/24/2014 | | 4.84 | -- | -- | 30.71 |
| | 3/25/2015 | | 5.53 | -- | -- | 30.02 |
| | 9/29/2015 | | 6.08 | -- | -- | 29.47 |
| | 6/2/2016 | | 5.85 | -- | -- | 29.70 |
| | 12/14/2016 | | 5.23 | -- | -- | 30.32 |
| | 4/6/2017 | 35.42 | 4.73 | -- | -- | 30.69 |
| | 10/18/2017 | | 5.72 | -- | -- | 29.70 |

*Please see notes at end of table.*

Table 1
Water Table Elevations
AT&T Data Center
Bothell, WA

| Well ID | Measurement Date | Top Of Casing Elevation (Feet MSL) | Depth to Water (Feet) | Depth to SPH (Feet) | SPH Thickness (Inches) | Groundwater Elevation (Feet MSL) |
|---|---|---|---|---|---|---|
| MW-3 | 9/30/2008 | 34.75 | 4.31 | -- | -- | 30.44 |
| | 1/12/2009 | | 2.99 | -- | -- | 31.76 |
| | 4/8/2009 | | 3.41 | -- | -- | 31.34 |
| | 7/8/2009 | | 4.37 | -- | -- | 30.38 |
| | 10/28/2009 | | 3.26 | -- | -- | 31.49 |
| | 4/6/2010 | | 3.56 | -- | -- | 31.19 |
| | 10/6/2010 | | 4.25 | -- | -- | 30.50 |
| | 3/10/2011 | | 2.58 | -- | -- | 32.17 |
| | 9/15/2011 | | 4.28 | -- | -- | 30.47 |
| | 3/15/2012 | | 2.49 | -- | -- | 32.26 |
| | 10/5/2012 | | 3.84 | -- | -- | 30.91 |
| | 3/4/2013 | | 3.34 | -- | -- | 31.41 |
| | 10/8/2013 | | 4.00 | -- | -- | 30.75 |
| | 3/17/2014 | | 2.58 | -- | -- | 32.17 |
| | 9/24/2014 | | 3.23 | -- | -- | 31.52 |
| | 3/25/2015 | | 3.60 | -- | -- | 31.15 |
| | 9/29/2015 | | 4.29 | -- | -- | 30.46 |
| | 6/2/2016 | | 3.98 | -- | -- | 30.77 |
| | 12/14/2016 | | 3.20 | -- | -- | 31.55 |
| | 4/6/2017 | 34.56 | 2.91 | -- | -- | 31.65 |
| | 10/18.2017 | | 3.85 | -- | -- | 30.71 |
| MW-4 | 9/30/2008 | 35.26 | 2.31 | -- | -- | 32.95 |
| | 1/12/2009 | | 1.56 | -- | -- | 33.70 |
| | 4/8/2009 | | 1.63 | -- | -- | 33.63 |
| | 7/8/2009 | | 2.12 | -- | -- | 33.14 |
| | 10/28/2009 | | 1.79 | -- | -- | 33.47 |
| | 4/6/2010 | | 2.89 | -- | -- | 32.37 |
| | 10/6/2010 | | 1.90 | -- | -- | 33.36 |
| | 3/10/2011 | | 1.23 | -- | -- | 34.03 |
| | 9/15/2011 | | 2.12 | -- | -- | 33.14 |
| | 3/15/2012 | | 1.29 | -- | -- | 33.97 |
| | 10/5/2012 | | 1.75 | -- | -- | 33.51 |
| | 3/4/2013 | | 1.78 | -- | -- | 33.48 |
| | 10/9/2013 | | 1.93 | -- | -- | 33.33 |
| | 3/17/2014 | | 1.15 | -- | -- | 34.11 |
| | 9/24/2014 | | 1.84 | -- | -- | 33.42 |
| | 3/25/2015 | | 1.70 | -- | -- | 33.56 |
| | 9/29/2015 | | 2.20 | -- | -- | 33.06 |
| | 6/2/2016 | | 1.98 | -- | -- | 33.28 |
| | 12/14/2016 | | 1.61 | -- | -- | 33.65 |
| | 4/6/2017 | 35.22 | 2.27 | -- | -- | 32.95 |
| | 10/18.2017 | | 1.89 | -- | -- | 33.33 |

*Please see notes at end of table.*

Table 1
Water Table Elevations
AT&T Data Center
Bothell, WA

| Well ID | Measurement Date | Top Of Casing Elevation (Feet MSL) | Depth to Water (Feet) | Depth to SPH (Feet) | SPH Thickness (Inches) | Groundwater Elevation (Feet MSL) |
|---|---|---|---|---|---|---|
| MW-5 | 10/1/2008 | 38.23 | 5.53 | -- | -- | 32.70 |
| | 1/12/2009 | | 4.22 | -- | -- | 34.01 |
| | 4/8/2009 | | 4.39 | -- | -- | 33.84 |
| | 7/8/2009 | | 4.98 | -- | -- | 33.25 |
| | 10/28/2009 | | 4.28 | -- | -- | 33.95 |
| | 4/6/2010 | | 5.62 | -- | -- | 32.61 |
| | 10/6/2010 | | 4.50 | -- | -- | 33.73 |
| | 3/11/2011 | | 4.19 | -- | -- | 34.04 |
| | 9/15/2011 | | 4.99 | -- | -- | 33.24 |
| | 3/15/2012 | | 4.19 | -- | -- | 34.04 |
| | 10/5/2012 | | 5.01 | -- | -- | 33.22 |
| | 3/4/2013 | | 4.41 | -- | -- | 33.82 |
| | 10/9/2013 | | 4.68 | -- | -- | 33.55 |
| | 3/18/2014 | | 4.22 | -- | -- | 34.01 |
| | 9/25/2014 | | 5.01 | -- | -- | 33.22 |
| | 3/25/2015 | | 4.62 | -- | -- | 33.61 |
| | 9/28/2015 | | 4.68 | -- | -- | 33.55 |
| | 6/3/2016 | | 4.98 | -- | -- | 33.25 |
| | 12/14/2016 | | NM, Well Dry | -- | -- | N/A |
| | 4/6/2017 | 38.03 | 4.16 | -- | -- | 33.87 |
| | 10/18/2017 | | 4.35 | -- | -- | 33.68 |
| MW-6 | 1/12/2009 | 36.45 | 4.42 | -- | -- | 32.28 |
| | 4/8/2009 | | 4.38 | -- | -- | 32.32 |
| | 7/8/2009 | | 4.70 | -- | -- | 32.00 |
| | 10/28/2009 | | 4.18 | -- | -- | 32.52 |
| | 4/6/2010 | | 3.95 | -- | -- | 32.75 |
| | 10/6/2010 | | 4.31 | -- | -- | 32.39 |
| | 3/10/2011 | | 3.57 | -- | -- | 33.13 |
| | 9/15/2011 | | 4.73 | -- | -- | 31.97 |
| | 3/15/2012 | | 3.40 | -- | -- | 33.30 |
| | 10/5/2012 | | 4.73 | -- | -- | 31.97 |
| | 3/4/2013 | | 3.68 | -- | -- | 33.02 |
| | 10/9/2013 | | 4.01 | -- | -- | 32.69 |
| | 3/18/2014 | | 3.52 | -- | -- | 33.18 |
| | 9/25/2014 | | 4.68 | -- | -- | 32.02 |
| | 3/25/2015 | | 3.79 | -- | -- | 32.91 |
| | 9/28/2015 | | 4.36 | -- | -- | 32.34 |
| | 6/3/2016 | | 4.05 | -- | -- | 32.65 |
| | 12/15/2016 | | 3.76 | -- | -- | 32.94 |
| | 4/6/2017 | | 3.60 | -- | -- | 32.85 |
| | 10/18/2017 | | 4.40 | -- | -- | 32.05 |

*Please see notes at end of table.*

Table 1
Water Table Elevations
AT&T Data Center
Bothell, WA

| Well ID | Measurement Date | Top Of Casing Elevation (Feet MSL) | Depth to Water (Feet) | Depth to SPH (Feet) | SPH Thickness (Inches) | Groundwater Elevation (Feet MSL) |
|---|---|---|---|---|---|---|
| MW-7 | 9/30/2008 | 35.80 | 3.50 | -- | -- | 32.30 |
| | 1/12/2009 | | 2.22 | -- | -- | 33.58 |
| | 4/8/2009 | | 2.32 | -- | -- | 33.48 |
| | 7/8/2009 | | 3.16 | -- | -- | 32.64 |
| | 10/28/2009 | | 2.48 | -- | -- | 33.32 |
| | 4/6/2010 | | 2.82 | -- | -- | 32.98 |
| | 10/6/2010 | | 3.16 | -- | -- | 32.64 |
| | 3/11/2011 | | 1.71 | -- | -- | 34.09 |
| | 9/15/2011 | | 3.38 | -- | -- | 32.42 |
| | 3/15/2012 | | 1.38 | -- | -- | 34.42 |
| | 10/5/2012 | | 3.58 | -- | -- | 32.22 |
| | 3/4/2013 | | 2.74 | -- | -- | 33.06 |
| | 10/9/2013 | | 3.25 | -- | -- | 32.55 |
| | 3/18/2014 | | 1.96 | -- | -- | 33.84 |
| | 9/24/2014 | | 3.53 | -- | -- | 32.27 |
| | 3/25/2015 | | 2.98 | -- | -- | 32.82 |
| | 9/28/2015 | | 3.62 | -- | -- | 32.18 |
| | 6/3/2016 | | 3.33 | -- | -- | 32.47 |
| | 12/15/2016 | | 2.58 | -- | -- | 33.22 |
| | 4/6/2017 | 35.58 | 2.58 | -- | -- | 33.00 |
| | 10/18/2017 | | 3.60 | -- | -- | 31.98 |
| MW-8 | 4/8/2009 | 38.15 | 4.88 | -- | -- | 33.65 |
| | 7/8/2009 | | 5.85 | -- | -- | 32.68 |
| | 10/28/2009 | | 4.78 | -- | -- | 33.75 |
| | 4/6/2010 | | 5.24 | -- | -- | 33.29 |
| | 10/6/2010 | | 5.26 | -- | -- | 33.27 |
| | 3/11/2011 | | 4.65 | -- | -- | 33.88 |
| | 9/15/2011 | | 5.89 | -- | -- | 32.64 |
| | 3/15/2012 | | 4.61 | -- | -- | 33.92 |
| | 10/5/2012 | | 7.39 | -- | -- | 31.14 |
| | 3/1/2013 | | 4.93 | -- | -- | 33.60 |
| | 10/9/2013 | | 5.27 | -- | -- | 33.26 |
| | 3/18/2014 | | 4.62 | -- | -- | 33.91 |
| | 9/25/2014 | | 5.98 | -- | -- | 32.55 |
| | 3/25/2015 | | 5.27 | -- | -- | 33.26 |
| | 9/28/2015 | | 5.48 | -- | -- | 33.05 |
| | 6/3/2016 | | 5.76 | -- | -- | 32.77 |
| | 12/15/2016 | | 5.16 | -- | -- | 33.37 |
| | 4/6/2017 | | 4.49 | -- | -- | 33.66 |
| | 10/18/2017 | | 5.10 | -- | -- | 33.05 |

*Please see notes at end of table.*

Table 1
Water Table Elevations
AT&T Data Center
Bothell, WA

| Well ID | Measurement Date | Top Of Casing Elevation (Feet MSL) | Depth to Water (Feet) | Depth to SPH (Feet) | SPH Thickness (Inches) | Groundwater Elevation (Feet MSL) |
|---|---|---|---|---|---|---|
| OW-1 | 3/30/2009 | -- | 5.46 | ND | -- | -- |
| | 4/8/2009 | -- | 5.49 | ND | -- | -- |
| | 4/9/2009 | -- | 5.55 | 0.05 | -- | -- |
| | 5/6/2009 | -- | 5.57 | ND | -- | -- |
| | 7/8/2009 | -- | 6.24 | ND | -- | -- |
| | 9/1/2009 | -- | 6.48 | ND | -- | -- |
| | 9/3/2009 | -- | NM | NM | -- | -- |
| | 9/17/2009 | -- | NM | NM | -- | -- |
| | 10/6/2009 | -- | NM | NM | -- | -- |
| | 10/7/2009 | -- | NM | NM | -- | -- |
| | 10/8/2009 | -- | NM | NM | -- | -- |
| | 4/6/2017 | 38.75 | 5.42 | -- | -- | 33.33 |
| | 10/18/2017 | | 6.36 | -- | -- | 32.39 |
| OW-2 | 3/30/2009 | -- | 6.03 | 0.70 | -- | -- |
| | 4/8/2009 | -- | 6.74 | 0.86 | -- | -- |
| | 4/9/2009 | -- | 6.27 | 0.18 | -- | -- |
| | 5/6/2009 | -- | 6.65 | 0.32 | -- | -- |
| | 7/8/2009 | -- | 6.86 | ND | -- | -- |
| | 9/1/2009 | -- | 6.86 | ND | -- | -- |
| | 9/3/2009 | -- | 7.87 | ND | -- | -- |
| | 9/17/2009 | -- | 6.87 | 0.01 | -- | -- |
| | 10/6/2009 | -- | 6.86 | 0.01 | -- | -- |
| | 10/7/2009 | -- | NM | NM | -- | -- |
| | 10/8/2009 | -- | NM | NM | -- | -- |
| | 4/6/2017 | 38.41 | 5.44 | -- | -- | 32.97 |
| | 10/18/2017 | | 6.48 | Trace | Trace | 31.93 |
| OW-3 | 3/30/2009 | -- | 5.14 | 0.04 | -- | -- |
| | 4/8/2009 | -- | 5.29 | 0.60 | -- | -- |
| | 4/9/2009 | -- | 5.33 | 0.70 | -- | -- |
| | 5/6/2009 | -- | 5.59 | 0.01 | -- | -- |
| | 7/8/2009 | -- | 6.43 | 0.08 | -- | -- |
| | 9/1/2009 | -- | 5.55 | 0.03 | -- | -- |
| | 9/3/2009 | -- | 5.61 | 0.04 | -- | -- |
| | 9/17/2009 | -- | 5.64 | 0.05 | -- | -- |
| | 10/6/2009 | -- | 5.65 | 0.02 | -- | -- |
| | 10/7/2009 | -- | NM | NM | -- | -- |
| | 10/8/2009 | -- | NM | NM | -- | -- |
| | 4/6/2017 | 38.57 | 5.00 | -- | -- | 33.57 |
| | 10/18/2017 | | 5.29 | -- | -- | 33.28 |

*Please see notes at end of table.*

Table 1
Water Table Elevations
AT&T Data Center
Bothell, WA

| Well ID | Measurement Date | Top Of Casing Elevation (Feet MSL) | Depth to Water (Feet) | Depth to SPH (Feet) | SPH Thickness (Inches) | Groundwater Elevation (Feet MSL) |
|---|---|---|---|---|---|---|
| B-19 | 3/30/2009 | -- | NM | NM | -- | -- |
| | 4/8/2009 | -- | NM | NM | -- | -- |
| | 4/9/2009 | -- | 7.45 | 1.30 | -- | -- |
| | 5/6/2009 | -- | 7.74 | 1.49 | -- | -- |
| | 7/8/2009 | -- | 8.83 | 1.90 | -- | -- |
| | 9/1/2009 | -- | 8.84 | 1.99 | -- | -- |
| | 9/3/2009 | -- | 7.78 | 0.64 | -- | -- |
| | 9/17/2009 | -- | 8.24 | 1.35 | -- | -- |
| | 10/6/2009 | -- | 6.97 | 1.25 | -- | -- |
| | 10/7/2009 | -- | 7.06 | 0.44 | -- | -- |
| | 10/8/2009 | -- | 7.11 | 0.24 | -- | -- |
| | 4/6/2017 | | 5.91 | -- | -- | 32.78 |
| | 10/18/2017 | 38.69 | 7.12 | -- | 0.50 | 31.57 |
| B-20 | 3/30/2009 | -- | NM | NM | -- | -- |
| | 4/8/2009 | -- | NM | NM | -- | -- |
| | 4/9/2009 | -- | 6.31 | ND | -- | -- |
| | 5/6/2009 | -- | 6.58 | ND | -- | -- |
| | 7/8/2009 | -- | 7.46 | 0.19 | -- | -- |
| | 9/1/2009 | -- | 7.32 | 0.05 | -- | -- |
| | 9/3/2009 | -- | 7.30 | 0.01 | -- | -- |
| | 9/17/2009 | -- | 7.23 | 0.06 | -- | -- |
| | 10/6/2009 | -- | 7.16 | 0.06 | -- | -- |
| | 10/7/2009 | -- | 7.20 | 0.01 | -- | -- |
| | 10/8/2009 | -- | 7.21 | 0.01 | -- | -- |
| | 4/6/2017 | | 6.22 | -- | 1.00 | 32.41 |
| | 10/18/2017 | 38.63 | 7.18 | -- | 0.25 | 31.45 |
| B-21 | 3/30/2009 | -- | NM | NM | -- | -- |
| | 4/8/2009 | -- | NM | NM | -- | -- |
| | 4/9/2009 | -- | NM | ND | -- | -- |
| | 5/6/2009 | -- | NM | ND | -- | -- |
| | 7/8/2009 | -- | NM | ND | -- | -- |
| | 9/1/2009 | -- | NM | NM | -- | -- |
| | 9/3/2009 | -- | NM | NM | -- | -- |
| | 9/17/2009 | -- | NM | NM | -- | -- |
| | 10/6/2009 | -- | NM | NM | -- | -- |
| | 10/7/2009 | -- | NM | NM | -- | -- |
| | 10/8/2009 | -- | NM | NM | -- | -- |
| | 4/6/2017 | | 6.35 | -- | 12.00 | 32.31 |
| | 10/18/2017 | 38.66 | 7.40 | -- | Trace | 31.26 |

*Please see notes at end of table.*

Table 1
Water Table Elevations
AT&T Data Center
Bothell, WA

| Well ID | Measurement Date | Top Of Casing Elevation (Feet MSL) | Depth to Water (Feet) | Depth to SPH (Feet) | SPH Thickness (Inches) | Groundwater Elevation (Feet MSL) |
|---|---|---|---|---|---|---|
| B-25 | 3/30/2009 | -- | NM | NM | -- | -- |
| | 4/8/2009 | -- | NM | NM | -- | -- |
| | 4/9/2009 | -- | 7.94 | 1.32 | -- | -- |
| | 5/6/2009 | -- | 6.97 | 0.25 | -- | -- |
| | 7/8/2009 | -- | 7.49 | ND | -- | -- |
| | 9/1/2009 | -- | 7.23 | ND | -- | -- |
| | 9/3/2009 | -- | NM | NM | -- | -- |
| | 9/17/2009 | -- | NM | NM | -- | -- |
| | 10/6/2009 | -- | NM | NM | -- | -- |
| | 10/7/2009 | -- | NM | NM | -- | -- |
| | 10/8/2009 | -- | NM | NM | -- | -- |
| | 4/6/2017 | | 6.37 | -- | Trace | 32.21 |
| | 10/18/2017 | 38.58 | 7.42 | -- | -- | 31.16 |
| B-26 | 3/30/2009 | -- | NM | NM | -- | -- |
| | 4/8/2009 | -- | NM | NM | -- | -- |
| | 4/9/2009 | -- | 5.59 | ND | -- | -- |
| | 5/6/2009 | -- | NM | ND | -- | -- |
| | 7/8/2009 | -- | 7.63 | ND | -- | -- |
| | 9/1/2009 | -- | 7.55 | ND | -- | -- |
| | 9/3/2009 | -- | NM | NM | -- | -- |
| | 9/17/2009 | -- | NM | NM | -- | -- |
| | 10/6/2009 | -- | NM | NM | -- | -- |
| | 10/7/2009 | -- | NM | NM | -- | -- |
| | 10/8/2009 | -- | NM | NM | -- | -- |
| | 4/6/2017 | 38.61 | 6.39 | -- | Trace | 32.22 |
| | 10/18/2017 | | 8.38 | -- | -- | 30.23 |
| B-27 | 3/30/2009 | -- | NM | NM | -- | -- |
| | 4/8/2009 | -- | NM | NM | -- | -- |
| | 4/9/2009 | -- | 6.47 | 0.00 | -- | -- |
| | 5/6/2009 | -- | 6.57 | ND | -- | -- |
| | 7/8/2009 | -- | 7.32 | ND | -- | -- |
| | 9/1/2009 | -- | 7.72 | ND | -- | -- |
| | 9/3/2009 | -- | NM | NM | -- | -- |
| | 9/17/2009 | -- | NM | NM | -- | -- |
| | 10/6/2009 | -- | NM | NM | -- | -- |
| | 10/7/2009 | -- | NM | NM | -- | -- |
| | 10/8/2009 | -- | NM | NM | -- | -- |
| | 4/6/2017 | | 6.00 | -- | -- | 32.52 |
| | 10/18/2017 | 38.52 | 7.27 | -- | -- | 31.25 |

*Please see notes at end of table.*

Table 1
Water Table Elevations
AT&T Data Center
Bothell, WA

| Well ID | Measurement Date | Top Of Casing Elevation (Feet MSL) | Depth to Water (Feet) | Depth to SPH (Feet) | SPH Thickness (Inches) | Groundwater Elevation (Feet MSL) |
|---|---|---|---|---|---|---|
| B-28 | 3/30/2009 | -- | NM | NM | -- | -- |
| | 4/8/2009 | -- | NM | NM | -- | -- |
| | 4/9/2009 | -- | 5.98 | 0.00 | -- | -- |
| | 5/6/2009 | -- | 6.11 | ND | -- | -- |
| | 7/8/2009 | -- | 7.10 | ND | -- | -- |
| | 9/1/2009 | -- | 7.74 | ND | -- | -- |
| | 9/3/2009 | -- | NM | NM | -- | -- |
| | 9/17/2009 | -- | NM | NM | -- | -- |
| | 10/6/2009 | -- | NM | NM | -- | -- |
| | 10/7/2009 | -- | NM | NM | -- | -- |
| | 10/8/2009 | -- | NM | NM | -- | -- |
| | 4/6/2017 | 38.49 | 5.54 | -- | -- | 32.95 |
| | 10/18/2017 | | 6.89 | -- | -- | 31.60 |
| EW-1 | 10/2/2015 | -- | NM | ND | -- | -- |
| | 10/15/2015 | -- | NM | ND | -- | -- |
| | 11/4/2015 | -- | NM | ND | -- | -- |
| | 11/19/2015 | -- | NM | ND | -- | -- |
| | 11/25/2015 | -- | NM | ND | -- | -- |
| | 12/16/2015 | -- | NM | ND | -- | -- |
| | 12/28/2015 | -- | NM | ND | -- | -- |
| | 1/12/2016 | -- | NM | ND | -- | -- |
| | 1/19/2016 | -- | NM | ND | -- | -- |
| | 1/27/2016 | -- | NM | ND | -- | -- |
| | 5/20/2016 | -- | 5.25 | ND | -- | -- |
| | 6/16/2016 | -- | NM | ND | -- | -- |
| | 7/5/2016 | -- | NM | ND | -- | -- |
| | 7/22/2016 | -- | NM | ND | -- | -- |
| | 8/5/2016 | -- | NM | ND | -- | -- |
| | 8/16/2016 | -- | NM | ND | -- | -- |
| | 8/30/2016 | -- | NM | ND | -- | -- |
| | 9/23/2016 | -- | NM | ND | -- | -- |
| | 10/6/2016 | -- | NM | ND | -- | -- |
| | 10/24/2016 | -- | NM | ND | -- | -- |
| | 11/11/2016 | -- | NM | ND | -- | -- |
| | 11/30/2016 | -- | NM | ND | -- | -- |
| | 12/15/2016 | -- | NM | ND | -- | -- |
| | 12/26/2016 | | NM | ND | -- | -- |
| | 10/18/2017 | 33.85 | 4.01 | -- | -- | 29.84 |

*Please see notes at end of table.*

Table 1
Water Table Elevations
AT&T Data Center
Bothell, WA

| Well ID | Measurement Date | Top Of Casing Elevation (Feet MSL) | Depth to Water (Feet) | Depth to SPH (Feet) | SPH Thickness (Inches) | Groundwater Elevation (Feet MSL) |
|---|---|---|---|---|---|---|
| EW-2 | 10/2/2015 | -- | 5.21 | ND | -- | -- |
| | 10/15/2015 | -- | 5.22 | ND | -- | -- |
| | 11/4/2015 | -- | 5.21 | ND | -- | -- |
| | 11/19/2015 | -- | 4.12 | ND | -- | -- |
| | 11/25/2015 | -- | 4.97 | ND | -- | -- |
| | 12/16/2015 | -- | 3.88 | ND | -- | -- |
| | 12/28/2015 | -- | 3.92 | ND | -- | -- |
| | 1/12/2016 | -- | 4.63 | ND | -- | -- |
| | 1/19/2016 | -- | NM | ND | -- | -- |
| | 1/27/2016 | -- | 3.76 | ND | -- | -- |
| | 5/20/2016 | -- | 5.14 | ND | -- | -- |
| | 6/16/2016 | -- | 4.00 | ND | -- | -- |
| | 7/5/2016 | -- | 4.05 | ND | -- | -- |
| | 7/22/2016 | -- | 5.21 | ND | -- | -- |
| | 8/5/2016 | -- | 5.22 | ND | -- | -- |
| | 8/16/2016 | -- | 5.24 | ND | -- | -- |
| | 8/30/2016 | -- | 5.21 | ND | -- | -- |
| | 9/23/2016 | -- | 5.18 | ND | -- | -- |
| | 10/6/2016 | -- | 5.19 | ND | -- | -- |
| | 10/24/2016 | -- | 4.29 | ND | -- | -- |
| | 11/11/2016 | -- | 4.88 | ND | -- | -- |
| | 11/30/2016 | -- | 3.07 | ND | -- | -- |
| | 12/15/2016 | -- | 4.43 | ND | -- | -- |
| | 12/26/2016 | -- | 4.63 | ND | -- | -- |
| | 4/24/2017 | | 3.09 | -- | -- | 30.64 |
| | 10/18/2017 | 33.73 | 3.91 | -- | -- | 29.82 |

*Please see notes at end of table.*

Table 1
Water Table Elevations
AT&T Data Center
Bothell, WA

| Well ID | Measurement Date | Top Of Casing Elevation (Feet MSL) | Depth to Water (Feet) | Depth to SPH (Feet) | SPH Thickness (Inches) | Groundwater Elevation (Feet MSL) |
|---|---|---|---|---|---|---|
| EW-3 | 10/2/2015 | -- | 4.80 | ND | -- | -- |
| | 10/15/2015 | -- | 4.80 | ND | -- | -- |
| | 11/4/2015 | -- | 4.78 | ND | -- | -- |
| | 11/19/2015 | -- | 3.71 | ND | -- | -- |
| | 11/25/2015 | -- | 4.60 | ND | -- | -- |
| | 12/16/2015 | -- | 3.47 | ND | -- | -- |
| | 12/28/2015 | -- | 3.50 | ND | -- | -- |
| | 1/12/2016 | -- | 4.26 | ND | -- | -- |
| | 1/19/2016 | -- | 3.76 | ND | -- | -- |
| | 1/27/2016 | -- | 3.38 | ND | -- | -- |
| | 5/20/2016 | -- | 4.70 | ND | -- | -- |
| | 6/16/2016 | -- | NM | ND | -- | -- |
| | 7/5/2016 | -- | 3.63 | ND | -- | -- |
| | 7/22/2016 | -- | 4.79 | ND | -- | -- |
| | 8/5/2016 | -- | 4.80 | ND | -- | -- |
| | 8/16/2016 | -- | 4.83 | ND | -- | -- |
| | 8/30/2016 | -- | 4.80 | ND | -- | -- |
| | 9/23/2016 | -- | 4.75 | ND | -- | -- |
| | 10/6/2016 | -- | 4.78 | ND | -- | -- |
| | 10/24/2016 | -- | 3.88 | ND | -- | -- |
| | 11/11/2016 | -- | 4.46 | ND | -- | -- |
| | 11/30/2016 | -- | 2.60 | ND | -- | -- |
| | 12/15/2016 | -- | 3.99 | ND | -- | -- |
| | 12/26/2016 | | 4.24 | ND | -- | -- |
| | 10/18/2017 | 33.44 | 4.01 | -- | -- | 29.43 |

*Please see notes at end of table.*

Table 1
Water Table Elevations
AT&T Data Center
Bothell, WA

| Well ID | Measurement Date | Top Of Casing Elevation (Feet MSL) | Depth to Water (Feet) | Depth to SPH (Feet) | SPH Thickness (Inches) | Groundwater Elevation (Feet MSL) |
|---|---|---|---|---|---|---|
| EW-4 | 10/2/2015 | -- | 4.66 | ND | -- | -- |
| | 10/15/2015 | -- | 4.69 | ND | -- | -- |
| | 11/4/2015 | -- | 4.64 | ND | -- | -- |
| | 11/19/2015 | -- | 3.57 | ND | -- | -- |
| | 11/25/2015 | -- | 4.30 | ND | -- | -- |
| | 12/16/2015 | -- | 3.32 | ND | -- | -- |
| | 12/28/2015 | -- | 3.35 | ND | -- | -- |
| | 1/12/2016 | -- | 3.98 | ND | -- | -- |
| | 1/19/2016 | -- | 3.51 | ND | -- | -- |
| | 1/27/2016 | -- | 3.21 | ND | -- | -- |
| | 5/20/2016 | -- | NM | ND | -- | -- |
| | 6/16/2016 | -- | 3.51 | ND | -- | -- |
| | 7/5/2016 | -- | 3.55 | ND | -- | -- |
| | 7/22/2016 | -- | 4.68 | ND | -- | -- |
| | 8/5/2016 | -- | 4.69 | ND | -- | -- |
| | 8/16/2016 | -- | 4.70 | ND | -- | -- |
| | 8/30/2016 | -- | 4.69 | ND | -- | -- |
| | 9/23/2016 | -- | 4.62 | ND | -- | -- |
| | 10/6/2016 | -- | 4.68 | ND | -- | -- |
| | 10/24/2016 | -- | 3.73 | ND | -- | -- |
| | 11/11/2016 | -- | 4.28 | ND | -- | -- |
| | 11/30/2016 | -- | 2.55 | ND | -- | -- |
| | 12/15/2016 | -- | NM | ND | -- | -- |
| | 12/26/2016 | -- | 4.08 | ND | -- | -- |
| | 4/24/2017 | 33.24 | 2.54 | -- | -- | 30.70 |
| | 10/18/2017 | | 3.42 | -- | -- | 29.82 |

*Please see notes at end of table.*

Table 1
Water Table Elevations
AT&T Data Center
Bothell, WA

| Well ID | Measurement Date | Top Of Casing Elevation (Feet MSL) | Depth to Water (Feet) | Depth to SPH (Feet) | SPH Thickness (Inches) | Groundwater Elevation (Feet MSL) |
|---|---|---|---|---|---|---|
| EW-5 | 10/2/2015 | -- | 4.53/4.50 | 0.03 | -- | -- |
| | 10/15/2015 | -- | 5.78 | ND | -- | -- |
| | 11/4/2015 | -- | 4.39 | ND | -- | -- |
| | 11/19/2015 | -- | 3.51 | ND | -- | -- |
| | 11/25/2015 | -- | 3.87 | ND | -- | -- |
| | 12/16/2015 | -- | 3.28 | ND | -- | -- |
| | 12/28/2015 | -- | 3.31 | ND | -- | -- |
| | 1/12/2016 | -- | 3.65 | ND | -- | -- |
| | 1/19/2016 | -- | 3.38 | ND | -- | -- |
| | 1/27/2016 | -- | 3.18 | ND | -- | -- |
| | 5/20/2016 | -- | 4.21/4.20 | 0.01 | -- | -- |
| | 6/16/2016 | -- | 3.55 | ND | -- | -- |
| | 7/5/2016 | -- | 3.60/3.59 | 0.01 | -- | -- |
| | 7/22/2016 | -- | 5.78 | ND | -- | -- |
| | 8/5/2016 | -- | 5.95 | ND | -- | -- |
| | 8/16/2016 | -- | 5.94 | ND | -- | -- |
| | 8/30/2016 | -- | 5.94 | ND | -- | -- |
| | 9/23/2016 | -- | 4.34 | ND | -- | -- |
| | 10/6/2016 | -- | 5.01 | ND | -- | -- |
| | 10/24/2016 | -- | 3.66 | ND | -- | -- |
| | 11/11/2016 | -- | 3.96 | ND | -- | -- |
| | 11/30/2016 | -- | 2.56 | ND | -- | -- |
| | 12/15/2016 | -- | 3.76 | ND | -- | -- |
| | 12/26/2016 | -- | 3.92 | ND | -- | -- |
| | 4/24/2017 | | 2.54 | -- | -- | 30.75 |
| | 10/18/2017 | 33.29 | 3.46 | -- | -- | 29.83 |

*Please see notes at end of table.*

Table 1
Water Table Elevations
AT&T Data Center
Bothell, WA

| Well ID | Measurement Date | Top Of Casing Elevation (Feet MSL) | Depth to Water (Feet) | Depth to SPH (Feet) | SPH Thickness (Inches) | Groundwater Elevation (Feet MSL) |
|---|---|---|---|---|---|---|
| EW-6 | 10/2/2015 | -- | 5.05 | ND | -- | -- |
| | 10/15/2015 | -- | 4.97 | ND | -- | -- |
| | 11/4/2015 | -- | 4.89 | ND | -- | -- |
| | 11/19/2015 | -- | 4.21 | ND | -- | -- |
| | 11/25/2015 | -- | 4.43 | ND | -- | -- |
| | 12/16/2015 | -- | 3.99 | ND | -- | -- |
| | 12/28/2015 | -- | 3.99 | ND | -- | -- |
| | 1/12/2016 | -- | 4.23 | ND | -- | -- |
| | 1/19/2016 | -- | 4.03 | ND | -- | -- |
| | 1/27/2016 | -- | 3.85 | ND | -- | -- |
| | 5/20/2016 | -- | 4.50 | ND | -- | -- |
| | 6/16/2016 | -- | 4.24 | ND | -- | -- |
| | 7/5/2016 | -- | 4.28 | ND | -- | -- |
| | 7/22/2016 | -- | 4.65 | ND | -- | -- |
| | 8/5/2016 | -- | 5.02 | ND | -- | -- |
| | 8/16/2016 | -- | 5.03 | ND | -- | -- |
| | 8/30/2016 | -- | 5.03 | ND | -- | -- |
| | 9/23/2016 | -- | 4.97 | ND | -- | -- |
| | 10/6/2016 | -- | 5.02 | ND | -- | -- |
| | 10/24/2016 | -- | 4.34 | ND | -- | -- |
| | 11/11/2016 | -- | 4.45 | ND | -- | -- |
| | 11/30/2016 | -- | 3.32 | ND | -- | -- |
| | 12/15/2016 | -- | 4.33 | ND | -- | -- |
| | 12/26/2016 | 34.18 | 4.33 | ND | -- | -- |

*Please see notes at end of table.*

Table 1
Water Table Elevations
AT&T Data Center
Bothell, WA

| Well ID | Measurement Date | Top Of Casing Elevation (Feet MSL) | Depth to Water (Feet) | Depth to SPH (Feet) | SPH Thickness (Inches) | Groundwater Elevation (Feet MSL) |
|---|---|---|---|---|---|---|
| EW-7 | 10/2/2015 | -- | NM | ND | -- | -- |
| | 10/15/2015 | -- | NM | ND | -- | -- |
| | 11/4/2015 | -- | NM | ND | -- | -- |
| | 11/19/2015 | -- | NM | ND | -- | -- |
| | 11/25/2015 | -- | NM | ND | -- | -- |
| | 12/16/2015 | -- | NM | ND | -- | -- |
| | 12/28/2015 | -- | NM | ND | -- | -- |
| | 1/12/2016 | -- | NM | ND | -- | -- |
| | 1/19/2016 | -- | NM | ND | -- | -- |
| | 1/27/2016 | -- | NM | ND | -- | -- |
| | 5/20/2016 | -- | 4.45 | ND | -- | -- |
| | 6/16/2016 | -- | NM | ND | -- | -- |
| | 7/5/2016 | -- | NM | ND | -- | -- |
| | 7/22/2016 | -- | NM | ND | -- | -- |
| | 8/5/2016 | -- | NM | ND | -- | -- |
| | 8/16/2016 | -- | NM | ND | -- | -- |
| | 8/30/2016 | -- | NM | ND | -- | -- |
| | 9/23/2016 | -- | NM | ND | -- | -- |
| | 10/6/2016 | -- | NM | ND | -- | -- |
| | 10/24/2016 | -- | NM | ND | -- | -- |
| | 11/11/2016 | -- | NM | ND | -- | -- |
| | 11/30/2016 | -- | NM | ND | -- | -- |
| | 12/15/2016 | -- | NM | ND | -- | -- |
| | 12/26/2016 | -- | NM | ND | -- | -- |
| | 4/24/2017 | 34.58 | 3.75 | -- | -- | 30.83 |
| | 10/18/2017 | | 4.49 | -- | -- | 30.09 |

*Please see notes at end of table.*

Table 1
Water Table Elevations
AT&T Data Center
Bothell, WA

| Well ID | Measurement Date | Top Of Casing Elevation (Feet MSL) | Depth to Water (Feet) | Depth to SPH (Feet) | SPH Thickness (Inches) | Groundwater Elevation (Feet MSL) |
|---|---|---|---|---|---|---|
| EW-8 | 10/2/2015 | -- | NM | ND | -- | -- |
| | 10/15/2015 | -- | NM | ND | -- | -- |
| | 11/4/2015 | -- | NM | ND | -- | -- |
| | 11/19/2015 | -- | NM | ND | -- | -- |
| | 11/25/2015 | -- | NM | ND | -- | -- |
| | 12/16/2015 | -- | NM | ND | -- | -- |
| | 12/28/2015 | -- | NM | ND | -- | -- |
| | 1/12/2016 | -- | NM | ND | -- | -- |
| | 1/19/2016 | -- | NM | ND | -- | -- |
| | 1/27/2016 | -- | NM | ND | -- | -- |
| | 5/20/2016 | -- | 4.88 | ND | -- | -- |
| | 6/16/2016 | -- | NM | ND | -- | -- |
| | 7/5/2016 | -- | NM | ND | -- | -- |
| | 7/22/2016 | -- | NM | ND | -- | -- |
| | 8/5/2016 | -- | NM | ND | -- | -- |
| | 8/16/2016 | -- | NM | ND | -- | -- |
| | 8/30/2016 | -- | NM | ND | -- | -- |
| | 9/23/2016 | -- | NM | ND | -- | -- |
| | 10/6/2016 | -- | NM | ND | -- | -- |
| | 10/24/2016 | -- | NM | ND | -- | -- |
| | 11/11/2016 | -- | NM | ND | -- | -- |
| | 11/30/2016 | -- | NM | ND | -- | -- |
| | 12/15/2016 | -- | NM | ND | -- | -- |
| | 12/26/2016 | | NM | ND | | |
| | 10/18/2017 | 35.26 | 5.32 | -- | -- | 29.94 |

*Please see notes at end of table.*

Table 1
Water Table Elevations
AT&T Data Center
Bothell, WA

| Well ID | Measurement Date | Top Of Casing Elevation (Feet MSL) | Depth to Water (Feet) | Depth to SPH (Feet) | SPH Thickness (Inches) | Groundwater Elevation (Feet MSL) |
|---|---|---|---|---|---|---|
| EW-9 | 10/2/2015 | -- | NM | ND | -- | -- |
| | 10/15/2015 | -- | NM | ND | -- | -- |
| | 11/4/2015 | -- | NM | ND | -- | -- |
| | 11/19/2015 | -- | NM | ND | -- | -- |
| | 11/25/2015 | -- | NM | ND | -- | -- |
| | 12/16/2015 | -- | NM | ND | -- | -- |
| | 12/28/2015 | -- | NM | ND | -- | -- |
| | 1/12/2016 | -- | NM | ND | -- | -- |
| | 1/19/2016 | -- | NM | ND | -- | -- |
| | 1/27/2016 | -- | NM | ND | -- | -- |
| | 5/20/2016 | -- | 4.79 | ND | -- | -- |
| | 6/16/2016 | -- | NM | ND | -- | -- |
| | 7/5/2016 | -- | NM | ND | -- | -- |
| | 7/22/2016 | -- | NM | ND | -- | -- |
| | 8/5/2016 | -- | NM | ND | -- | -- |
| | 8/16/2016 | -- | NM | ND | -- | -- |
| | 8/30/2016 | -- | NM | ND | -- | -- |
| | 9/23/2016 | -- | NM | ND | -- | -- |
| | 10/6/2016 | -- | NM | ND | -- | -- |
| | 10/24/2016 | -- | NM | ND | -- | -- |
| | 11/11/2016 | -- | NM | ND | -- | -- |
| | 11/30/2016 | -- | NM | ND | -- | -- |
| | 12/15/2016 | -- | NM | ND | -- | -- |
| | 12/26/2016 | | NM | ND | | |
| | 10/18/2017 | 35.92 | 5.94 | -- | -- | 29.98 |

*Please see notes at end of table.*

Table 1
Water Table Elevations
AT&T Data Center
Bothell, WA

| Well ID | Measurement Date | Top Of Casing Elevation (Feet MSL) | Depth to Water (Feet) | Depth to SPH (Feet) | SPH Thickness (Inches) | Groundwater Elevation (Feet MSL) |
|---|---|---|---|---|---|---|
| EW-10 | 10/2/2015 | -- | 2.58 | ND | -- | -- |
| | 10/15/2015 | -- | 2.33 | ND | -- | -- |
| | 11/4/2015 | -- | 2.18 | ND | -- | -- |
| | 11/19/2015 | -- | 2.68 | ND | -- | -- |
| | 11/25/2015 | -- | 2.82 | ND | -- | -- |
| | 12/16/2015 | -- | 2.69 | ND | -- | -- |
| | 12/28/2015 | -- | 2.67 | ND | -- | -- |
| | 1/12/2016 | -- | 2.79 | ND | -- | -- |
| | 1/19/2016 | -- | NM | ND | -- | -- |
| | 1/27/2016 | -- | 2.58 | ND | -- | -- |
| | 5/20/2016 | -- | 2.77 | ND | -- | -- |
| | 6/16/2016 | -- | 2.84 | ND | -- | -- |
| | 7/5/2016 | -- | 2.91 | ND | -- | -- |
| | 7/22/2016 | -- | 2.91 | ND | -- | -- |
| | 8/5/2016 | -- | 2.54 | ND | -- | -- |
| | 8/16/2016 | -- | 2.58 | ND | -- | -- |
| | 8/30/2016 | -- | 2.63 | ND | -- | -- |
| | 9/23/2016 | -- | 2.45 | ND | -- | -- |
| | 10/6/2016 | -- | 2.53 | ND | -- | -- |
| | 10/24/2016 | -- | 2.73 | ND | -- | -- |
| | 11/11/2016 | -- | 2.79 | ND | -- | -- |
| | 11/30/2016 | -- | 2.62 | ND | -- | -- |
| | 12/15/2016 | -- | 2.72 | ND | -- | -- |
| | 12/26/2016 | | 2.63 | ND | -- | -- |

*Notes:*
1. TOC = Top of casing.
2. feet MSL = Feet above mean sea level.
3. Survey data as reported by Goldsmith Land Development Services (2017)
4. SPH = Separate phase hydrocarbon.
5. ND = SPH not detected in well.
6. NM = Not measured.
7. -- = Not present or not available.

Table 2
Groundwater and Surface Water Analytical Results
AT&T Data Center
Bothell, WA

| Location | Date Collected | *Concentrations in µg/ L* | | | | | |
|---|---|---|---|---|---|---|---|
| | | Diesel Range Organics (DRO) | Residual Range Organics (RRO) | Benzene | Toluene | Ethylbenzene | Total Xylenes |
| MTCA Method A Groundwater Cleanup Level | | 500 | 500 | 5 | 1,000 | 700 | 1,000 |
| MW-1 | 9/30/2008 | ND | ND | ND | ND | ND | ND |
| | 1/12/2009 | ND | ND | ND | ND | ND | ND |
| | 4/8/2009 | ND | ND | ND | ND | ND | ND |
| | 7/8/2009 | ND | ND | ND | ND | ND | ND |
| | 10/28/2009 | ND | ND | ND | ND | ND | ND |
| | 4/6/2010 | ND | ND | ND | ND | ND | ND |
| | 10/6/2010 | ND | ND | ND | 1.6 | ND | ND |
| | 3/10/2011 | ND | ND | ND | ND | ND | ND |
| | 9/15/2011 | ND | ND | ND | ND | ND | ND |
| | 3/15/2012 | ND | ND | ND | ND | ND | ND |
| | 10/5/2012 | 170 Y | 360 Y | ND | ND | ND | ND |
| | 3/1/2013 | ND | ND | ND | ND | ND | ND |
| | 10/8/2013 | ND | ND | ND | ND | ND | ND |
| | 3/17/2014 | ND | ND | ND | ND | ND | ND |
| | 9/24/2014 | ND | ND | ND | ND | ND | ND |
| | 3/25/2015 | ND | ND | ND | ND | ND | ND |
| | 9/29/2015 | ND | ND | ND | ND | ND | ND |
| | 6/2/2016 | ND | 32.6 J | ND | 1.1 | ND | ND |
| | 12/14/2016 | ND | ND | ND | ND | ND | ND |
| | 4/6/2017 | 70.4 J | 163 J | <1 | <1 | <1 | <3 |
| | 10/17/2017 | 95.7 J | 313 | <1 | <1 | <1 | <3 |
| MW-2 | 9/30/2008 | ND | ND | ND | ND | ND | ND |
| | 1/12/2009 | ND | ND | ND | ND | ND | ND |
| | 4/8/2009 | ND | ND | ND | ND | ND | ND |
| | 7/8/2009 | ND | ND | ND | ND | ND | ND |
| | 10/28/2009 | ND | ND | ND | ND | ND | ND |
| | 4/6/2010 | ND | ND | ND | ND | ND | ND |
| | 10/6/2010 | ND | ND | ND | ND | ND | ND |
| | 3/10/2011 | ND | ND | ND | ND | ND | ND |
| | 9/15/2011 | ND | ND | ND | ND | ND | ND |
| | 3/15/2012 | ND | ND | ND | ND | ND | ND |
| | 10/5/2012 | 120 Y | ND | ND | ND | ND | ND |
| | 3/1/2013 | ND | ND | ND | ND | ND | ND |
| | 10/8/2013 | ND | ND | ND | 1.8 | ND | ND |
| | 3/17/2014 | ND | 590 | ND | ND | ND | ND |
| | 9/24/2014 | ND | ND | ND | ND | ND | ND |
| | 3/25/2015 | ND | ND | ND | ND | ND | ND |
| | 9/29/2015 | ND | ND | ND | ND | ND | ND |
| | 6/2/2016 | ND | 36.4 J | ND | 1.8 | ND | ND |
| | 12/14/2016 | ND | ND | ND | ND | ND | ND |
| | 4/6/2017 | <250 | <500 | <1 | <1 | <1 | <3 |
| | 10/17/2017 | 80.1 J | 226 J | <1 | <1 | <1 | <3 |
| MW-2 dup | 10/17/2017 | <200 | <250 | <1 | <1 | <1 | <3 |

*Please see notes at end of table.*

Table 2
Groundwater and Surface Water Analytical Results
AT&T Data Center
Bothell, WA

| Location | Date Collected | *Concentrations in µg/ L* | | | | | |
|---|---|---|---|---|---|---|---|
| | | Diesel Range Organics (DRO) | Residual Range Organics (RRO) | Benzene | Toluene | Ethylbenzene | Total Xylenes |
| MTCA Method A Groundwater Cleanup Level | | 500 | 500 | 5 | 1,000 | 700 | 1,000 |
| MW-3 | 9/30/2008 | ND | ND | ND | ND | ND | ND |
| | 1/12/2009 | ND | ND | ND | ND | ND | ND |
| | 4/8/2009 | ND | ND | ND | ND | ND | ND |
| | 7/8/2009 | ND | ND | ND | ND | ND | ND |
| | 10/28/2009 | ND | ND | ND | ND | ND | ND |
| | 4/6/2010 | ND | ND | ND | ND | ND | ND |
| | 10/6/2010 | ND | ND | ND | ND | ND | ND |
| | 3/10/2011 | ND | ND | ND | ND | ND | ND |
| | 9/15/2011 | ND | ND | ND | ND | ND | ND |
| | 3/15/2012 | ND | ND | ND | ND | ND | ND |
| | 10/5/2012 | ND | ND | ND | ND | ND | ND |
| | 3/4/2013 | ND | ND | ND | ND | ND | ND |
| | 10/8/2013 | ND | ND | ND | ND | ND | ND |
| | 3/17/2014 | ND | ND | ND | ND | ND | ND |
| | 9/24/2014 | ND | ND | ND | ND | ND | ND |
| | 3/25/2015 | ND | ND | ND | ND | ND | ND |
| | 9/29/2015 | ND | ND | ND | ND | ND | ND |
| | 6/2/2016 | ND | ND | ND | ND | ND | ND |
| | 12/14/2016 | ND | ND | ND | ND | ND | ND |
| | 4/6/2017 | <250 | <500 | <1 | <1 | <1 | <3 |
| | 10/17/2017 | <200 | 145 J | <1 | <1 | <1 | <3 |
| MW-4 | 9/30/2008 | ND | ND | ND | ND | ND | ND |
| | 1/12/2009 | ND | ND | ND | ND | ND | ND |
| | 4/8/2009 | ND | ND | ND | ND | ND | ND |
| | 7/8/2009 | ND | ND | ND | ND | ND | ND |
| | 10/28/2009 | ND | ND | ND | ND | ND | ND |
| | 4/6/2010 | ND | ND | ND | ND | ND | ND |
| | 10/6/2010 | ND | ND | ND | ND | ND | ND |
| | 3/10/2011 | ND | ND | ND | ND | ND | ND |
| | 9/15/2011 | ND | ND | ND | ND | ND | ND |
| | 3/15/2012 | ND | ND | ND | ND | ND | ND |
| | 10/5/2012 | ND | ND | ND | ND | ND | ND |
| | 3/4/2013 | ND | ND | ND | ND | ND | ND |
| | 10/9/2013 | ND | ND | ND | ND | ND | ND |
| | 3/17/2014 | ND | 760 | ND | ND | ND | ND |
| | 9/24/2014 | ND | ND | ND | ND | ND | ND |
| | 3/25/2015 | ND | ND | ND | ND | ND | ND |
| | 9/29/2015 | ND | ND | ND | ND | ND | ND |
| | 6/2/2016 | ND | 36.0 J | ND | ND | ND | ND |
| | 12/14/2016 | ND | ND | ND | ND | ND | ND |
| | 4/7/2017 | <250 | <500 | <1 | <1 | <1 | <3 |
| | 4/7/2017 Duplicate | <250 | <500 | <1 | <1 | <1 | <3 |
| | 10/17/2017 | <200 | <250 | <1 | <1 | <1 | <3 |

*Please see notes at end of table.*

Table 2
Groundwater and Surface Water Analytical Results
AT&T Data Center
Bothell, WA

| Location | Date Collected | *Concentrations in µg/ L* | | | | | |
|---|---|---|---|---|---|---|---|
| | | Diesel Range Organics (DRO) | Residual Range Organics (RRO) | Benzene | Toluene | Ethylbenzene | Total Xylenes |
| MTCA Method A Groundwater Cleanup Level | | 500 | 500 | 5 | 1,000 | 700 | 1,000 |
| MW-5 | 10/1/2008 | ND | ND | ND | ND | ND | ND |
| | 1/12/2009 | ND | ND | ND | ND | ND | ND |
| | 4/8/2009 | ND | ND | ND | ND | ND | ND |
| | 7/8/2009 | ND | ND | ND | ND | ND | ND |
| | 10/28/2009 | ND | ND | ND | ND | ND | ND |
| | 4/6/2010 | ND | ND | ND | ND | ND | ND |
| | 10/6/2010 | ND | ND | ND | ND | ND | ND |
| | 3/11/2011 | ND | ND | ND | ND | ND | ND |
| | 9/15/2011 | ND | ND | ND | ND | ND | ND |
| | 3/15/2012 | ND | ND | ND | ND | ND | ND |
| | 10/5/2012 | 390 Y | 420 Y | ND | ND | ND | ND |
| | 3/4/2013 | ND | ND | ND | ND | ND | ND |
| | 10/9/2013 | ND | ND | ND | ND | ND | ND |
| | 3/18/2014 | ND | 470 | ND | ND | ND | ND |
| | 9/25/2014 | ND | ND | ND | ND | ND | ND |
| | 3/25/2015 | ND | ND | ND | ND | ND | ND |
| | 9/28/2015 | ND | ND | ND | ND | ND | ND |
| | 6/3/2016 | ND | 36.2 J | ND | ND | ND | ND |
| | 6/3/2016 Duplicate | 74.3 J | 45.3 J | ND | ND | ND | ND |
| | 12/14/2016 | Sample not collected; well dry | | | | | |
| | 4/7/2017 | 97.7 J | <500 | <1 | <1 | <1 | <3 |
| | 10/17/2017 | 211 | 193 J | <1 | 22.7 | <1 | <3 |
| MW-6 | 10/1/2008 | ND | ND | ND | ND | ND | ND |
| | 1/12/2009 | ND | ND | ND | ND | ND | ND |
| | 4/8/2009 | ND | ND | ND | ND | ND | ND |
| | 7/8/2009 | ND | ND | ND | ND | ND | ND |
| | 10/28/2009 | ND | ND | ND | ND | ND | ND |
| | 4/6/2010 | ND | ND | ND | ND | ND | ND |
| | 10/6/2010 | ND | ND | ND | ND | ND | ND |
| | 3/10/2011 | ND | ND | ND | ND | ND | ND |
| | 9/15/2011 | ND | ND | ND | ND | ND | ND |
| | 3/15/2012 | ND | ND | ND | ND | ND | ND |
| | 10/5/2012 | ND | ND | ND | ND | ND | ND |
| | 3/4/2013 | ND | ND | ND | ND | ND | ND |
| | 10/9/2013 | ND | ND | ND | ND | ND | ND |
| | 3/18/2014 | ND | ND | ND | ND | ND | ND |
| | 9/25/2014 | ND | ND | ND | ND | ND | ND |
| | 3/25/2015 | ND | ND | ND | ND | ND | ND |
| | 9/28/2015 | ND | ND | ND | ND | ND | ND |
| | 6/3/2016 | ND | ND | ND | ND | ND | ND |
| | 12/15/2016 | ND | ND | ND | ND | ND | ND |
| | 4/7/2017 | <250 | <500 | <1 | <1 | <1 | <3 |
| | 10/17/2017 | <200 | <250 | <1 | <1 | <1 | <3 |

*Please see notes at end of table.*

Table 2
Groundwater and Surface Water Analytical Results
AT&T Data Center
Bothell, WA

| Location | Date Collected | *Concentrations in µg/ L* | | | | | |
|---|---|---|---|---|---|---|---|
| | | Diesel Range Organics (DRO) | Residual Range Organics (RRO) | Benzene | Toluene | Ethylbenzene | Total Xylenes |
| MTCA Method A Groundwater Cleanup Level | | 500 | 500 | 5 | 1,000 | 700 | 1,000 |
| MW-7 | 9/30/2008 | ND | ND | ND | ND | ND | ND |
| | 1/12/2009 | ND | ND | ND | ND | ND | ND |
| | 4/8/2009 | ND | ND | ND | ND | ND | ND |
| | 7/8/2009 | ND | ND | ND | ND | ND | ND |
| | 10/28/2009 | ND | ND | ND | ND | ND | ND |
| | 4/6/2010 | ND | ND | ND | ND | ND | ND |
| | 10/6/2010 | ND | ND | ND | ND | ND | ND |
| | 3/11/2011 | ND | ND | ND | ND | ND | ND |
| | 9/15/2011 | ND | ND | ND | ND | ND | ND |
| | 3/15/2012 | ND | ND | ND | ND | ND | ND |
| | 10/5/2012 | ND | ND | ND | ND | ND | ND |
| | 3/4/2013 | ND | ND | ND | ND | ND | ND |
| | 10/9/2013 | ND | ND | ND | ND | ND | ND |
| | 3/18/2014 | ND | 490 | ND | ND | ND | ND |
| | 9/24/2014 | ND | ND | ND | ND | ND | ND |
| | 3/25/2015 | ND | ND | ND | ND | ND | ND |
| | 9/28/2015 | ND | ND | ND | ND | ND | ND |
| | 6/3/2016 | ND | ND | ND | ND | ND | ND |
| | 12/15/2016 | ND | ND | ND | ND | ND | ND |
| | 4/7/2017 | <250 | <500 | <1 | <1 | <1 | <3 |
| | 10/17/2017 | <200 | <250 | <1 | <1 | <1 | <3 |
| MW-8 | 1/12/2009 | 1,030 | ND | 86.3 | 11.7 | 125 | 1,000 |
| | 4/8/2009 | 2,120 | ND | 18.4 | 1.2 | 54.6 | 245 |
| | 7/8/2009 | 2,290 | ND | 12 | ND | 14 | 59 |
| | 10/28/2009 | 1,700 | ND | 41 | 1.6 | 61 | 157 |
| | 4/6/2010 | 2,700 | ND | 34 | 1.2 | 47 | 139 |
| | 10/6/2010 | 2,100 | ND | 3.7 | ND | ND | ND |
| | 3/11/2011 | 1,500 | ND | 18 | ND | 43 | 129 |
| | 9/15/2011 | 1,600 | ND | ND | 21 | ND | ND |
| | 3/15/2012 | 2,900 Y | ND | 11 | ND | 11 | 51.3 |
| | 10/5/2012 | 2,100 Y | 570 Y | ND | ND | ND | 5 |
| | 3/1/2013 | 1,800 Y | ND | 1.1 | ND | 7 | 30 |
| | 10/9/2013 | 2,200 | ND | ND | ND | 1.1 | ND |
| | 3/18/2014 | 2,900 | 1300 | ND | ND | 5.3 | 3.1 |
| | 9/25/2014 | 970 | ND | ND | ND | ND | ND |
| | 3/25/2015 | 3,500 | ND | ND | ND | 1.4 | ND |
| | 9/28/2015 | 2,000 | ND | ND | ND | ND | ND |
| | 6/3/2016 | 1,340 | 194 | ND | ND | ND | ND |
| | 12/15/2016 | 2,600 | ND | ND | ND | ND | ND |
| | 12/15/2016 Duplicate | 3,200 | ND | ND | ND | ND | ND |
| | 4/7/2017 | 2,480 | 582 | <1 | <1 | <1 | <3 |
| | 10/17/2017 | 7,670 | 659 | <1 | <1 | <1 | <3 |

*Please see notes at end of table.*

Table 2
Groundwater and Surface Water Analytical Results
AT&T Data Center
Bothell, WA

| Location | Date Collected | *Concentrations in µg/ L* | | | | | |
|---|---|---|---|---|---|---|---|
| | | Diesel Range Organics (DRO) | Residual Range Organics (RRO) | Benzene | Toluene | Ethylbenzene | Total Xylenes |
| MTCA Method A Groundwater Cleanup Level | | 500 | 500 | 5 | 1,000 | 700 | 1,000 |
| OW-1 | 4/7/2017 | 2,710 | 499 J | <1 | <1 | <1 | <3 |
| OW-2 | 4/7/2017 | 62,500 | 15,200 | 2.25 | <1 | 1.94 | 2.43 J |
| | 10/18/2017 | 96300 | 5980 J | <25 | <25 | 29 | 61.9 J |
| OW-3 | 4/7/2017 | 4,290 | 651 | <1 | <1 | <1 | 3.02 |
| | 10/18/2017 | 6140 | 594 | <1 | <1 | 0.633 J | 2.56 J |
| B-19 | 4/7/2017 | 70,300 | 6,890 J | 1.87 | 0.454 J | 53.6 | 25 |
| | 10/18/2017 | 13000 | 706 | <1 | <1 | 22.3 | 8.49 |
| B-20 | 4/7/2017 | 4,900 | 1,090 J | 1.13 | 0.921 J | 28.4 | 77.5 |
| | 10/18/2017 | 7770 | 441 | 1.4 | 0.436 J | 9.36 | 75.7 |
| B-21 | 4/7/2017 | 25,700 | 4,050 J | 1.86 | 4.5 | 15.6 | 169 |
| | 4/07/2017 Duplicate | 25,400 | 5,050 | 1.74 | 4.44 | 16.4 | 173 |
| | 10/18/2017 | 14400 | 1240 J+ | 1.6 | 7.46 | 28.8 | 248 |
| B-25 | 4/7/2017 | 23,700 J+ | 9,550 J+ | 0.604 J | 1.19 | 5.52 | 37.6 |
| | 10/18/2017 | 5130 | 496 J+ | 0.516 J | 2.39 | 9.76 | 56.8 |
| B-26 | 4/7/2017 | 5,790 | 2,130 J | <1 | <1 | <1 | <3 |
| | 10/18/2017 | 4740 | 630 | <1 | 0.497 J | 13.6 | 37.3 |
| B-27 | 4/7/2017 | 8,520 | 3,460 | <1 | <1 | <1 | <3 |
| B-28 | 4/7/2017 | 132 J | 299 J | 2.85 | <1 | 16.2 | 96.2 |
| | 10/18/2017 | 1800 | 410 | <1 | <1 | <1 | <3 |
| EW-1 | 10/17/2017 | 1360 | 611 | <1 | <1 | <1 | <3 |
| EW-2 | 4/24/2017 | 2,250 | 608 | 0.474 J | <1 | 4.47 | 1.2 J |
| | 10/17/2017 | 1520 | 748 | <1 | <1 | <1 | <3 |
| EW-4 | 4/24/2017 | 1,160 | 278 | 0.49 J | <1 | 4.58 | 1.21 J |
| | 10/17/2017 | 3950 | 933 | <1 | 0.859 J | <1 | <3 |
| EW-5 | 4/24/2017 | 1,840 | 467 | 0.772 J | <1 | 6.59 | 1.5 J |
| | 10/17/2017 | 4740 | 1140 | <1 | 0.449 J | <1 | <3 |
| EW-7 | 4/24/2017 | 166 J | 105 J | <1 | <1 | <1 | <3 |
| | 10/17/2017 | 294 | 278 | <1 | <1 | <1 | <3 |
| EW-8 | 10/17/2017 | 2300 | 598 | <1 | <1 | <1 | <3 |
| EW-9 | 10/17/2017 | 2640 | 670 | <1 | <1 | <1 | <3 |

| Location | Date Collected | *Concentrations in µg/ L* | | | | | |
|---|---|---|---|---|---|---|---|
| | | Diesel Range | Residual Range | Benzene | Toluene | Ethylbenzene | Total Xylenes |
| King County Disharge Screening Levels | | N/A | N/A | 70 | 1400 | 1700 | 2200 |
| SW-1 | 4/6/2017 | 87.1 J | <500 | <1 | <1 | <1 | <3 |
| SW-2 | 4/6/2017 | <250 | <500 | <1 | <1 | <1 | <3 |
| SW-3 | 4/6/2017 | <250 | <500 | <1 | <1 | <1 | <3 |

*Notes:*

1. µg/L = microgram per liter
2. Bold values indicate the compounds was detected above laboratory reporting limits.
3. < = Analyte was not detected above the reporting limit.
4. Results obtained before 4/7/2017 indicate ND for analytes not detected above the laboratory reporting limit.
5. Shaded values indicate the compound was detected above the MTCA Method A groundwater cleanup level.
6. Groundwater cleanup levels from the Model Toxics Control Act (MTCA) Method A (August 2015 update).
7. J = Result is estimated.
8. Y = Chromatogram pattern resembles atypical fuel pattern.
9. J+ = Result is estimated and may be biased high.

Table 3
Soil Vapor Analytical Results
AT&T Data Center
Bothell, WA

| Location: | SV-1 | SV-2 | SV-3 | MTCA Method B Sub-Slab Soil Gas Screening Levels |
|---|---|---|---|---|
| Date: | 7/25/2017 | 7/25/2017 | 7/25/2017 | |
| *Volatile Organic Compounds (µg/m $^3$)* | | | | |
| Acetone | 86.4 | 183 | 166 | -- |
| Allyl Chloride | <0.626 | <0.626 | <0.626 | -- |
| Benzene | <0.639 | <0.639 | <0.639 | 11 |
| Benzyl Chloride | <1.04 | <1.04 | <1.04 | 1.7 |
| Bromodichloromethane | <1.34 | <1.34 | <1.34 | 2.3 |
| Bromoform | <6.21 | <6.21 | <6.21 | 76 |
| Bromomethane | <0.776 | <0.776 | <0.776 | 76 |
| 1,3-Butadiene | <4.43 | <4.43 | <4.43 | 2.8 |
| Carbon Disulfide | 0.71 | <0.622 | <0.622 | 10667 |
| Carbon Tetrachloride | <1.26 | <1.26 | <1.26 | 14 |
| Chlorobenzene | <0.924 | <0.924 | <0.924 | 762 |
| Chloroethane | <0.528 | <0.528 | <0.528 | -- |
| Chloroform | 2.34 | 2.66 | 1.81 | 3.6 |
| Chloromethane | <0.413 | <0.413 | <0.413 | 1371 |
| 2-Chlorotoluene | <1.03 | <1.03 | <1.03 | -- |
| Cyclohexane | <0.689 | <0.689 | 1.17 | -- |
| Chlorodibromomethane | <1.7 | <1.7 | <1.7 | 3.1 |
| 1,2-Dibromoethane | <1.54 | <1.54 | <1.54 | 0.14 |
| 1,2-Dichlorobenzene | <1.2 | <1.2 | <1.2 | 3048 |
| 1,3-Dichlorobenzene | <1.2 | <1.2 | <1.2 | -- |
| 1,4-Dichlorobenzene | <1.2 | <1.2 | <1.2 | 7.6 |
| 1,2-Dichloroethane | <0.81 | <0.81 | <0.81 | 3.2 |
| 1,1-Dichloroethane | <0.802 | <0.802 | <0.802 | 52 |
| 1,1-Dichloroethene | <0.793 | <0.793 | <0.793 | 3048 |
| cis-1,2-Dichloroethene | <0.793 | <0.793 | <0.793 | -- |
| trans-1,2-Dichloroethene | <0.793 | <0.793 | <0.793 | -- |
| 1,2-Dichloropropane | <0.924 | <0.924 | <0.924 | 8.3 |
| cis-1,3-Dichloropropene | <0.908 | <0.908 | <0.908 | 21 |
| trans-1,3-Dichloropropene | <0.908 | <0.908 | <0.908 | 21 |
| 1,4-Dioxane | <0.721 | 5.1 | 3.78 | -- |
| Ethanol | <1.19 | 127 | 123 | -- |
| Ethylbenzene | 8.18 | <0.867 | 2.02 | 15238 |
| 4-Ethyltoluene | 2.5 | 1.12 | <0.982 | -- |
| Trichlorofluoromethane | 4.83 | 6.16 | 3.4 | 10667 |
| Dichlorodifluoromethane | 1.02 | 1.13 | 1.3 | 1524 |
| 1,1,2-Trichlorotrifluoroethane | <1.53 | <1.53 | <1.53 | 457143 |
| 1,2-Dichlorotetrafluoroethane | <1.4 | <1.4 | <1.4 | -- |
| Heptane | <0.818 | <0.818 | 1.1 | -- |
| Hexachloro-1,3-Butadiene | <6.73 | <6.73 | <6.73 | 3.8 |
| N-Hexane | <0.705 | <0.705 | 1.51 | 10667 |

*Please see notes at end of table.*

Table 3
Soil Vapor Analytical Results
AT&T Data Center
Bothell, WA

| Location: | SV-1 | SV-2 | SV-3 | MTCA Method B Sub-Slab Soil Gas Screening Levels |
|---|---|---|---|---|
| Date: | 7/25/2017 | 7/25/2017 | 7/25/2017 | |
| *Volatile Organic Compounds (µg/m $^3$)* | | | | |
| Isopropylbenzene | <0.983 | <0.983 | <0.983 | 6095 |
| Methylene Chloride | <0.694 | <0.694 | **4.54** | 8333 |
| Methyl Butyl Ketone | <5.11 | <5.11 | <5.11 | -- |
| 2-Butanone (MEK) | <3.69 | <3.69 | <3.69 | 76190 |
| 4-Methyl-2-Pentanone (MIBK) | <5.12 | <5.12 | <5.12 | 45714 |
| Methyl Methacrylate | <0.819 | <0.819 | <0.819 | 10667 |
| Methyl Tert-Butyl Ether | **0.732** | <0.721 | <0.721 | 321 |
| Naphthalene | <3.3 | <3.3 | <3.3 | 2.5 |
| 2-Propanol | <3.07 | **31.3** | **117** | -- |
| Propene | <0.689 | <0.689 | <0.689 | -- |
| Styrene | <0.851 | <0.851 | <0.851 | 15238 |
| 1,1,2,2-Tetrachloroethane | <1.37 | <1.37 | <1.37 | 1.4 |
| Tetrachloroethene | **1.79** | **1.92** | **2.04** | 321 |
| Tetrahydrofuran | <0.59 | <0.59 | <0.59 | -- |
| Toluene | **25.1** | **4.88** | **10.6** | 76190 |
| 1,2,4-Trichlorobenzene | <4.66 | <4.66 | <4.66 | 30 |
| 1,1,1-Trichloroethane | <1.09 | <1.09 | <1.09 | 76190 |
| 1,1,2-Trichloroethane | <1.09 | <1.09 | <1.09 | 3.0 |
| Trichloroethene | <1.07 | <1.07 | <1.07 | 12.3 |
| 1,2,4-Trimethylbenzene | **10.4** | **1.31** | **2.45** | 107 |
| 1,3,5-Trimethylbenzene | **3.61** | <0.982 | <0.982 | -- |
| 2,2,4-Trimethylpentane | <0.934 | <0.934 | **2.16** | -- |
| Vinyl Chloride | <0.511 | <0.511 | <0.511 | 9.3 |
| Vinyl Bromide | <0.875 | <0.875 | <0.875 | -- |
| Vinyl Acetate | <0.704 | <0.704 | <0.704 | 3048 |
| m&p-Xylene | **24.8** | **2.09** | **6.79** | 1524 |
| o-Xylene | **6.48** | <0.867 | **2.44** | 1524 |

*Notes:*

1. µg/m$^3$ = microgram per cubic meter
2. Bold values indicate the compounds was detected above laboratory reporting limits.
3. < = Analyte was not detected above the reporting limit.
4. Shaded values indicate the compound was detected above the MTCA Method B sub-slab soil gas screening level.
5. -- = Value not available.
6. Sub-slab soil gas screening levels from the Model Toxics Control Act (MTCA) Method B for cancer and non cancer (August 2015 update).

Table 4
Ambient Air Analytical Results
AT&T Data Center
Bothell, WA

| Location: | AMB-1 | AMB-2 | MTCA Method B Cleanup Level for Air |
|---|---|---|---|
| Date: | 10/16/2017 | 7/26/2017 | |
| *Volatile Organic Compounds ($\mu g/m^3$)* | | | |
| Benzene | 0.795 | 0.337 | 0.32 |
| Carbon Tetrachloride | 0.492 | 0.503 | 0.42 |
| Chloroethane | <0.106 | <0.106 | -- |
| Chloroform | 0.71 | <0.0973 | 0.11 |
| Chloromethane | 1.08 | 1.27 | 41 |
| 1,2-Dibromoethane | <0.154 | <0.154 | 0.0042 |
| 1,4-Dichlorobenzene | <0.12 | <0.12 | 0.23 |
| 1,1-Dichloroethane | <0.0802 | <0.0802 | 1.56 |
| 1,1-Dichloroethene | <0.0793 | <0.0793 | 91 |
| cis-1,2-Dichloroethene | <0.0793 | <0.0793 | -- |
| trans-1,2-Dichloroethene | <0.0793 | <0.0793 | 27 |
| 1,2-Dichloropropane | <0.139 | <0.139 | 0.25 |
| cis-1,3-Dichloropropene | <0.0908 | <0.0908 | -- |
| trans-1,3-Dichloropropene | <0.136 | <0.136 | -- |
| Ethylbenzene | 0.493 | 0.393 | 457 |
| 1,1,2,2-Tetrachloroethane | <0.137 | <0.137 | 0.043 |
| Tetrachloroethene | 8.49 | 0.392 | 9.6 |
| 1,1,1-Trichloroethane | <0.109 | <0.109 | 2286 |
| 1,1,2-Trichloroethane | <0.163 | <0.163 | 0.16 |
| Trichloroethene | <0.107 | <0.107 | 0.37 |
| Vinyl Chloride | <0.0511 | <0.0511 | 46 |
| Vinyl Acetate | <0.0704 | <0.0704 | 91 |

*Notes:*

1. $\mu g/m^3$ = microgram per cubic meter
2. Bold values indicate the compounds was detected above laboratory reporting limits.
3. < = Analyte was not detected above the reporting limit.
4. Shaded values indicate the compound was detected above the MTCA Method B cleanup level for air.
5. -- = Value not available.
6. Air cleanup levels from the MTCA Method B for cancer and non cancer (August 2015 update).

# *Appendix A*

## Laboratory Analytical Reports and QA Review

# Appendix A – QA/QC Review

This appendix documents the results of a quality assurance/quality control (QA/QC) review of the analytical data for groundwater, ambient air and soil vapor samples collected for the AT&T Bothell Service Center project. Samples were analyzed by ESC Lab Sciences of Mount Juliet, Tennessee. Copies of the analytical laboratory reports are included in this appendix, referenced as follows:

| Report | Report Date | Sampling Event |
|---|---|---|
| L901511 | April 8, 2017 | Groundwater/Surface Water |
| L904741 | April 25, 2017 | Groundwater |
| L944908 | October 19, 2017 | Groundwater |
| L946460 | October 26, 2017 | Ambient Air and Soil Vapor |

## 1.0 Analytical Methods

Chemical analyses for groundwater analytical included in this QA Report consisted of the following:

- Diesel and oil range petroleum hydrocarbons using method NW TPH-Dx; and
- Volatile organic compounds (VOCs) by U.S. Environmental Protection Agency (EPA) Method 8260B.

Ambient air and soil vapor chemical analyses:

- Volatile organic compounds (VOCs) by EPA method TO-15.

## 2.0 Data Validation

The QA review included examination and validation of the laboratory data packages for the following:

- Analytical preparation and quantitation methods
- Analytical method holding times
- Sample handling
- Chain of custody procedures
- Detection and reporting limits
- Method blank detections
- Laboratory control samples and surrogates to assess laboratory accuracy
- Laboratory control sample duplicates to assess laboratory precision

The QA/QC review did not include a review of raw data.

This QA/QC review documents the relationship between analytical findings and data quality objectives based on precision and accuracy. It also summarizes possible error or bias and the effect on data quality and usability.

The laboratory quality control (QC) samples provided in data packages were used to evaluate laboratory contamination or background interferences, sample preparation efficiency and instrumentation performance. The QC samples provided by the analytical laboratory are from the Environmental Protection Agency (EPA): method blanks and laboratory control samples (LCS/LCSD). Surrogates are also required for VOC analysis to assess sample preparation efficiency and matrix interferences.

## 2.1 Data Qualifiers

Any data that is found to have possible bias or error was qualified and flagged. The following are definitions of qualifiers used in this data quality report and data tables.

| | |
|---|---|
| J | Data results are estimated values. In this QA/QC review report, this qualifier is indicative of sample results that are between the minimum detection limit and the reporting limit. |
| J+ | Data results are estimated and may be biased high. |

## 2.2 Quality Assurance/Quality Control – Groundwater Events

During the April and October 2017 groundwater sampling events, laboratory method blanks, laboratory control sample (LCS), laboratory control sample duplicate (LCSD), surrogate spikes and field duplicates were analyzed to assess the quality of the analytical results. The laboratory QA/QC results are included with the laboratory data packages in Appendix A.

The QA/QC data indicate the following:

- Samples were received by the analytical laboratory in good condition and in the appropriate, laboratory-supplied sample containers. Containers to be analyzed for VOCs did not have headspace present,
- The samples were analyzed within their respective method holding times.
- The LCS and LCSD percent recoveries and RPD values were within the acceptable range.
- No measured analytes were identified in the Method Blank.
- For the April 2017 sampling event, the diesel and residual range organics surrogate recovery was outside of the control limit for OW-2, B-19 and B-25. Low surrogate recovery is attributed to sample dilutions for OW-2 and B-19. Surrogate recovery was above the upper control limit for B-25; results for diesel and residual range organics for B-25 are considered estimated and may be biased high.
- For the October 2017 sampling event, the residual range organics surrogate was above the upper control limit for sampling location B-21 and B-25 and is attributable to matrix interference. Sample results are considered estimated and may be biased high.

The data were reviewed by Apex and found to be acceptable for use.

### 2.3.3 Quality Assurance/Quality Control – Air Events

During the July and October 2017 ambient air and soil vapor sampling events, laboratory method blanks, laboratory control sample (LCS), laboratory control sample duplicate (LCSD) and surrogate spikes were analyzed to assess the quality of the analytical results. The laboratory QA/QC results are included with the laboratory data packages in Appendix A.

The QA/QC data indicate the following:

- Samples were received by the analytical laboratory in good condition and in the appropriate, laboratory-supplied sample containers.
- The samples were analyzed within their respective method holding times.
- The LCS and LCSD percent recoveries were within the acceptable range.
- Analytes were detected in the method blank but the same analytes were not detected in the associated samples. Contamination is not suspected and data results are considered acceptable.

The data were reviewed by Apex and found to be acceptable for use.

# ANALYTICAL REPORT

April 25, 2017

## APEX Companies - Portland, OR

| | |
|---|---|
| Sample Delivery Group: | L901511 |
| Samples Received: | 04/08/2017 |
| Project Number: | 320002337 |
| Description: | AT&T Bothell |

Report To: Kristina Sumner
3015 SW First Avenue
Portland, OR 97201-4707

Entire Report Reviewed By:

Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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## SW-2 L901511-01 GW

Collected by: JM MM AL
Collected date/time: 04/06/17 17:40
Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG969550 | 1 | 04/13/17 16:53 | 04/13/17 16:53 | JHH |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969437 | 1 | 04/11/17 21:35 | 04/12/17 16:26 | TH |

## SW-1 L901511-02 GW

Collected by: JM MM AL
Collected date/time: 04/06/17 18:00
Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG969550 | 1 | 04/13/17 17:12 | 04/13/17 17:12 | JHH |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969437 | 1 | 04/11/17 21:35 | 04/12/17 16:43 | TH |

## SW-3 L901511-03 GW

Collected by: JM MM AL
Collected date/time: 04/06/17 17:25
Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG969550 | 1 | 04/13/17 17:31 | 04/13/17 17:31 | JHH |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969437 | 1 | 04/11/17 21:35 | 04/12/17 17:00 | TH |

## MW-3 L901511-04 GW

Collected by: JM MM AL
Collected date/time: 04/06/17 15:48
Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG969550 | 1 | 04/13/17 17:50 | 04/13/17 17:50 | JHH |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969437 | 1 | 04/11/17 21:35 | 04/12/17 17:17 | TH |

## MW-1 L901511-05 GW

Collected by: JM MM AL
Collected date/time: 04/06/17 17:20
Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG969550 | 1 | 04/13/17 18:09 | 04/13/17 18:09 | JHH |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969437 | 1 | 04/11/17 21:35 | 04/13/17 17:16 | DMG |

## MW-2 L901511-06 GW

Collected by: JM MM AL
Collected date/time: 04/06/17 16:47
Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG969550 | 1 | 04/13/17 18:28 | 04/13/17 18:28 | JHH |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969437 | 1 | 04/11/17 21:35 | 04/12/17 17:51 | TH |

## MW-6 L901511-07 GW

Collected by: JM MM AL
Collected date/time: 04/07/17 08:58
Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG969550 | 1 | 04/13/17 18:47 | 04/13/17 18:47 | JHH |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969437 | 1 | 04/11/17 21:35 | 04/12/17 18:08 | TH |

## MW-5 L901511-08 GW

Collected by: JM MM AL | Collected date/time: 04/07/17 08:48 | Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG969550 | 1 | 04/13/17 19:06 | 04/13/17 19:06 | JHH |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969437 | 1 | 04/11/17 21:35 | 04/12/17 18:25 | TH |

## MW-7 L901511-09 GW

Collected by: JM MM AL | Collected date/time: 04/07/17 08:25 | Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG969550 | 1 | 04/13/17 19:25 | 04/13/17 19:25 | JHH |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969437 | 1 | 04/11/17 21:35 | 04/12/17 18:42 | TH |

## B-27 L901511-10 GW

Collected by: JM MM AL | Collected date/time: 04/07/17 10:30 | Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG969550 | 1 | 04/13/17 19:44 | 04/13/17 19:44 | JHH |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969437 | 5 | 04/11/17 21:35 | 04/13/17 13:48 | TH |

## MW-4 L901511-11 GW

Collected by: JM MM AL | Collected date/time: 04/07/17 08:09 | Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG969550 | 1 | 04/13/17 20:03 | 04/13/17 20:03 | JHH |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969437 | 1 | 04/11/17 21:35 | 04/12/17 19:16 | TH |

## MW-4 DUP L901511-12 GW

Collected by: JM MM AL | Collected date/time: 04/07/17 08:09 | Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG969550 | 1 | 04/13/17 20:22 | 04/13/17 20:22 | JHH |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969437 | 1 | 04/11/17 21:35 | 04/12/17 19:33 | TH |

## OW-2 L901511-13 GW

Collected by: JM MM AL | Collected date/time: 04/07/17 10:45 | Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG969550 | 1 | 04/13/17 20:41 | 04/13/17 20:41 | JHH |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969437 | 20 | 04/11/17 21:35 | 04/12/17 21:49 | TH |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969437 | 20 | 04/11/17 21:35 | 04/13/17 14:54 | TH |

## OW-1 L901511-14 GW

Collected by: JM MM AL | Collected date/time: 04/07/17 10:32 | Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG969550 | 1 | 04/13/17 21:00 | 04/13/17 21:00 | JHH |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969437 | 1 | 04/11/17 21:35 | 04/13/17 12:41 | TH |

## OW-3 L901511-15 GW

Collected by: JM MM AL | Collected date/time: 04/07/17 11:00 | Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG969550 | 1 | 04/13/17 21:18 | 04/13/17 21:18 | JHH |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969437 | 1 | 04/11/17 21:35 | 04/13/17 12:58 | TH |

## MW-8 L901511-16 GW

Collected by: JM MM AL | Collected date/time: 04/07/17 09:38 | Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG969550 | 1 | 04/13/17 21:37 | 04/13/17 21:37 | JHH |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969437 | 1 | 04/11/17 21:35 | 04/13/17 13:15 | TH |

## B-28 L901511-17 GW

Collected by: JM MM AL | Collected date/time: 04/07/17 09:38 | Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG969550 | 1 | 04/13/17 21:55 | 04/13/17 21:55 | JHH |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969437 | 1 | 04/11/17 21:35 | 04/13/17 13:31 | TH |

## B-19 L901511-18 GW

Collected by: JM MM AL | Collected date/time: 04/07/17 09:56 | Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG969550 | 1 | 04/17/17 23:49 | 04/17/17 23:49 | JHH |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969437 | 20 | 04/11/17 21:35 | 04/13/17 14:38 | TH |

## B-20 L901511-19 GW

Collected by: JM MM AL | Collected date/time: 04/07/17 11:25 | Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG969550 | 1 | 04/13/17 22:14 | 04/13/17 22:14 | JHH |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969437 | 5 | 04/11/17 21:35 | 04/13/17 14:04 | TH |

## B-26 L901511-20 GW

Collected by: JM MM AL | Collected date/time: 04/07/17 11:10 | Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG969550 | 1 | 04/13/17 22:32 | 04/13/17 22:32 | JHH |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969437 | 5 | 04/11/17 21:35 | 04/13/17 14:21 | TH |

## B-25 L901511-21 GW

Collected by: JM MM AL | Collected date/time: 04/07/17 11:50 | Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG970361 | 1 | 04/14/17 06:19 | 04/14/17 06:19 | ACG |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969874 | 10 | 04/13/17 07:45 | 04/19/17 14:49 | ADF |

## B-21 L901511-22 GW

Collected by: JM MM AL
Collected date/time: 04/07/17 12:10
Received date/time: 04/08/17 09:00

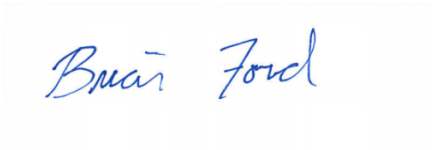
| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG970361 | 1 | 04/14/17 06:34 | 04/14/17 06:34 | ACG |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969874 | 10 | 04/13/17 07:45 | 04/13/17 18:12 | TH |

## B-21 DUP L901511-23 GW

Collected by: JM MM AL
Collected date/time: 04/07/17 12:10
Received date/time: 04/08/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG970361 | 1 | 04/14/17 06:50 | 04/14/17 06:50 | ACG |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG969874 | 10 | 04/13/17 07:45 | 04/13/17 18:28 | TH |

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



Brian Ford
Technical Service Representative

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 04/13/2017 16:53 | WG969550 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/13/2017 16:53 | WG969550 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 04/13/2017 16:53 | WG969550 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 04/13/2017 16:53 | WG969550 |
| *(S) Toluene-d8* | *105* | | | *80.0-120* | | *04/13/2017 16:53* | WG969550 |
| *(S) Dibromofluoromethane* | *93.1* | | | *76.0-123* | | *04/13/2017 16:53* | WG969550 |
| *(S) a,a,a-Trifluorotoluene* | *106* | | | *80.0-120* | | *04/13/2017 16:53* | WG969550 |
| *(S) 4-Bromofluorobenzene* | *98.9* | | | *80.0-120* | | *04/13/2017 16:53* | WG969550 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | U | | 82.5 | 250 | 1 | 04/12/2017 16:26 | WG969437 |
| Residual Range Organics (RRO) | U | | 165 | 500 | 1 | 04/12/2017 16:26 | WG969437 |
| *(S) o-Terphenyl* | *108* | | | *52.0-156* | | *04/12/2017 16:26* | WG969437 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 04/13/2017 17:12 | WG969550 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/13/2017 17:12 | WG969550 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 04/13/2017 17:12 | WG969550 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 04/13/2017 17:12 | WG969550 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* | | *04/13/2017 17:12* | WG969550 |
| *(S) Dibromofluoromethane* | *93.0* | | | *76.0-123* | | *04/13/2017 17:12* | WG969550 |
| *(S) a,a,a-Trifluorotoluene* | *108* | | | *80.0-120* | | *04/13/2017 17:12* | WG969550 |
| *(S) 4-Bromofluorobenzene* | *101* | | | *80.0-120* | | *04/13/2017 17:12* | WG969550 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 87.1 | J | 82.5 | 250 | 1 | 04/12/2017 16:43 | WG969437 |
| Residual Range Organics (RRO) | U | | 165 | 500 | 1 | 04/12/2017 16:43 | WG969437 |
| *(S) o-Terphenyl* | *116* | | | *52.0-156* | | *04/12/2017 16:43* | WG969437 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 04/13/2017 17:31 | WG969550 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/13/2017 17:31 | WG969550 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 04/13/2017 17:31 | WG969550 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 04/13/2017 17:31 | WG969550 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* | | *04/13/2017 17:31* | WG969550 |
| *(S) Dibromofluoromethane* | *94.2* | | | *76.0-123* | | *04/13/2017 17:31* | WG969550 |
| *(S) a,a,a-Trifluorotoluene* | *105* | | | *80.0-120* | | *04/13/2017 17:31* | WG969550 |
| *(S) 4-Bromofluorobenzene* | *98.6* | | | *80.0-120* | | *04/13/2017 17:31* | WG969550 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | U | | 82.5 | 250 | 1 | 04/12/2017 17:00 | WG969437 |
| Residual Range Organics (RRO) | U | | 165 | 500 | 1 | 04/12/2017 17:00 | WG969437 |
| *(S) o-Terphenyl* | *115* | | | *52.0-156* | | *04/12/2017 17:00* | WG969437 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 04/13/2017 17:50 | WG969550 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/13/2017 17:50 | WG969550 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 04/13/2017 17:50 | WG969550 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 04/13/2017 17:50 | WG969550 |
| *(S) Toluene-d8* | *105* | | | *80.0-120* | | *04/13/2017 17:50* | WG969550 |
| *(S) Dibromofluoromethane* | *91.1* | | | *76.0-123* | | *04/13/2017 17:50* | WG969550 |
| *(S) a,a,a-Trifluorotoluene* | *105* | | | *80.0-120* | | *04/13/2017 17:50* | WG969550 |
| *(S) 4-Bromofluorobenzene* | *97.9* | | | *80.0-120* | | *04/13/2017 17:50* | WG969550 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | U | | 82.5 | 250 | 1 | 04/12/2017 17:17 | WG969437 |
| Residual Range Organics (RRO) | U | | 165 | 500 | 1 | 04/12/2017 17:17 | WG969437 |
| *(S) o-Terphenyl* | *109* | | | *52.0-156* | | *04/12/2017 17:17* | WG969437 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 04/13/2017 18:09 | WG969550 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/13/2017 18:09 | WG969550 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 04/13/2017 18:09 | WG969550 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 04/13/2017 18:09 | WG969550 |
| *(S) Toluene-d8* | *105* | | | *80.0-120* | | *04/13/2017 18:09* | WG969550 |
| *(S) Dibromofluoromethane* | *95.1* | | | *76.0-123* | | *04/13/2017 18:09* | WG969550 |
| *(S) a,a,a-Trifluorotoluene* | *105* | | | *80.0-120* | | *04/13/2017 18:09* | WG969550 |
| *(S) 4-Bromofluorobenzene* | *99.4* | | | *80.0-120* | | *04/13/2017 18:09* | WG969550 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 70.4 | J | 66.0 | 200 | 1 | 04/13/2017 17:16 | WG969437 |
| Residual Range Organics (RRO) | 163 | J | 82.5 | 250 | 1 | 04/13/2017 17:16 | WG969437 |
| *(S) o-Terphenyl* | *80.1* | | | *52.0-156* | | *04/13/2017 17:16* | WG969437 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 04/13/2017 18:28 | WG969550 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/13/2017 18:28 | WG969550 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 04/13/2017 18:28 | WG969550 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 04/13/2017 18:28 | WG969550 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* | | *04/13/2017 18:28* | WG969550 |
| *(S) Dibromofluoromethane* | *93.5* | | | *76.0-123* | | *04/13/2017 18:28* | WG969550 |
| *(S) a,a,a-Trifluorotoluene* | *106* | | | *80.0-120* | | *04/13/2017 18:28* | WG969550 |
| *(S) 4-Bromofluorobenzene* | *98.7* | | | *80.0-120* | | *04/13/2017 18:28* | WG969550 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | U | | 82.5 | 250 | 1 | 04/12/2017 17:51 | WG969437 |
| Residual Range Organics (RRO) | U | | 165 | 500 | 1 | 04/12/2017 17:51 | WG969437 |
| *(S) o-Terphenyl* | *108* | | | *52.0-156* | | *04/12/2017 17:51* | WG969437 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 04/13/2017 18:47 | WG969550 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/13/2017 18:47 | WG969550 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 04/13/2017 18:47 | WG969550 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 04/13/2017 18:47 | WG969550 |
| *(S) Toluene-d8* | *105* | | | *80.0-120* | | *04/13/2017 18:47* | WG969550 |
| *(S) Dibromofluoromethane* | *94.3* | | | *76.0-123* | | *04/13/2017 18:47* | WG969550 |
| *(S) a,a,a-Trifluorotoluene* | *105* | | | *80.0-120* | | *04/13/2017 18:47* | WG969550 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *04/13/2017 18:47* | WG969550 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | U | | 82.5 | 250 | 1 | 04/12/2017 18:08 | WG969437 |
| Residual Range Organics (RRO) | U | | 165 | 500 | 1 | 04/12/2017 18:08 | WG969437 |
| *(S) o-Terphenyl* | *106* | | | *52.0-156* | | *04/12/2017 18:08* | WG969437 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 04/13/2017 19:06 | WG969550 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/13/2017 19:06 | WG969550 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 04/13/2017 19:06 | WG969550 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 04/13/2017 19:06 | WG969550 |
| *(S) Toluene-d8* | *105* | | | *80.0-120* | | *04/13/2017 19:06* | WG969550 |
| *(S) Dibromofluoromethane* | *93.6* | | | *76.0-123* | | *04/13/2017 19:06* | WG969550 |
| *(S) a,a,a-Trifluorotoluene* | *107* | | | *80.0-120* | | *04/13/2017 19:06* | WG969550 |
| *(S) 4-Bromofluorobenzene* | *99.3* | | | *80.0-120* | | *04/13/2017 19:06* | WG969550 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 97.7 | J | 82.5 | 250 | 1 | 04/12/2017 18:25 | WG969437 |
| Residual Range Organics (RRO) | U | | 165 | 500 | 1 | 04/12/2017 18:25 | WG969437 |
| *(S) o-Terphenyl* | *103* | | | *52.0-156* | | *04/12/2017 18:25* | WG969437 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 04/13/2017 19:25 | WG969550 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/13/2017 19:25 | WG969550 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 04/13/2017 19:25 | WG969550 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 04/13/2017 19:25 | WG969550 |
| *(S) Toluene-d8* | *105* | | | *80.0-120* | | *04/13/2017 19:25* | WG969550 |
| *(S) Dibromofluoromethane* | *95.1* | | | *76.0-123* | | *04/13/2017 19:25* | WG969550 |
| *(S) a,a,a-Trifluorotoluene* | *105* | | | *80.0-120* | | *04/13/2017 19:25* | WG969550 |
| *(S) 4-Bromofluorobenzene* | *99.5* | | | *80.0-120* | | *04/13/2017 19:25* | WG969550 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | U | | 82.5 | 250 | 1 | 04/12/2017 18:42 | WG969437 |
| Residual Range Organics (RRO) | U | | 165 | 500 | 1 | 04/12/2017 18:42 | WG969437 |
| *(S) o-Terphenyl* | *106* | | | *52.0-156* | | *04/12/2017 18:42* | WG969437 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 04/13/2017 19:44 | WG969550 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/13/2017 19:44 | WG969550 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 04/13/2017 19:44 | WG969550 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 04/13/2017 19:44 | WG969550 |
| *(S) Toluene-d8* | *105* | | | *80.0-120* | | *04/13/2017 19:44* | WG969550 |
| *(S) Dibromofluoromethane* | *97.0* | | | *76.0-123* | | *04/13/2017 19:44* | WG969550 |
| *(S) a,a,a-Trifluorotoluene* | *104* | | | *80.0-120* | | *04/13/2017 19:44* | WG969550 |
| *(S) 4-Bromofluorobenzene* | *98.9* | | | *80.0-120* | | *04/13/2017 19:44* | WG969550 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 8520 | | 412 | 1250 | 5 | 04/13/2017 13:48 | WG969437 |
| Residual Range Organics (RRO) | 3460 | | 825 | 2500 | 5 | 04/13/2017 13:48 | WG969437 |
| *(S) o-Terphenyl* | *122* | | | *52.0-156* | | *04/13/2017 13:48* | WG969437 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 04/13/2017 20:03 | WG969550 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/13/2017 20:03 | WG969550 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 04/13/2017 20:03 | WG969550 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 04/13/2017 20:03 | WG969550 |
| *(S) Toluene-d8* | *106* | | | *80.0-120* | | *04/13/2017 20:03* | WG969550 |
| *(S) Dibromofluoromethane* | *93.6* | | | *76.0-123* | | *04/13/2017 20:03* | WG969550 |
| *(S) a,a,a-Trifluorotoluene* | *107* | | | *80.0-120* | | *04/13/2017 20:03* | WG969550 |
| *(S) 4-Bromofluorobenzene* | *98.5* | | | *80.0-120* | | *04/13/2017 20:03* | WG969550 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | U | | 82.5 | 250 | 1 | 04/12/2017 19:16 | WG969437 |
| Residual Range Organics (RRO) | U | | 165 | 500 | 1 | 04/12/2017 19:16 | WG969437 |
| *(S) o-Terphenyl* | *114* | | | *52.0-156* | | *04/12/2017 19:16* | WG969437 |

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

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 04/13/2017 20:22 | WG969550 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/13/2017 20:22 | WG969550 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 04/13/2017 20:22 | WG969550 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 04/13/2017 20:22 | WG969550 |
| *(S) Toluene-d8* | *105* | | | *80.0-120* | | *04/13/2017 20:22* | WG969550 |
| *(S) Dibromofluoromethane* | *97.1* | | | *76.0-123* | | *04/13/2017 20:22* | WG969550 |
| *(S) a,a,a-Trifluorotoluene* | *106* | | | *80.0-120* | | *04/13/2017 20:22* | WG969550 |
| *(S) 4-Bromofluorobenzene* | *97.2* | | | *80.0-120* | | *04/13/2017 20:22* | WG969550 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | U | | 82.5 | 250 | 1 | 04/12/2017 19:33 | WG969437 |
| Residual Range Organics (RRO) | U | | 165 | 500 | 1 | 04/12/2017 19:33 | WG969437 |
| *(S) o-Terphenyl* | *109* | | | *52.0-156* | | *04/12/2017 19:33* | WG969437 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Benzene | 2.25 | | 0.331 | 1.00 | 1 | 04/13/2017 20:41 | WG969550 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/13/2017 20:41 | WG969550 |
| Ethylbenzene | 1.94 | | 0.384 | 1.00 | 1 | 04/13/2017 20:41 | WG969550 |
| Total Xylenes | 2.43 | J | 1.06 | 3.00 | 1 | 04/13/2017 20:41 | WG969550 |
| *(S) Toluene-d8* | *105* | | | *80.0-120* | | *04/13/2017 20:41* | WG969550 |
| *(S) Dibromofluoromethane* | *94.4* | | | *76.0-123* | | *04/13/2017 20:41* | WG969550 |
| *(S) a,a,a-Trifluorotoluene* | *105* | | | *80.0-120* | | *04/13/2017 20:41* | WG969550 |
| *(S) 4-Bromofluorobenzene* | *107* | | | *80.0-120* | | *04/13/2017 20:41* | WG969550 |

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

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 62500 | | 1650 | 5000 | 20 | 04/12/2017 21:49 | WG969437 |
| Residual Range Organics (RRO) | 15200 | | 3300 | 10000 | 20 | 04/13/2017 14:54 | WG969437 |
| *(S) o-Terphenyl* | *2.88* | J7 | | *52.0-156* | | *04/13/2017 14:54* | WG969437 |
| *(S) o-Terphenyl* | *4.58* | J7 | | *52.0-156* | | *04/12/2017 21:49* | WG969437 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 04/13/2017 21:00 | WG969550 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/13/2017 21:00 | WG969550 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 04/13/2017 21:00 | WG969550 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 04/13/2017 21:00 | WG969550 |
| *(S) Toluene-d8* | *105* | | | *80.0-120* | | *04/13/2017 21:00* | WG969550 |
| *(S) Dibromofluoromethane* | *94.2* | | | *76.0-123* | | *04/13/2017 21:00* | WG969550 |
| *(S) a,a,a-Trifluorotoluene* | *107* | | | *80.0-120* | | *04/13/2017 21:00* | WG969550 |
| *(S) 4-Bromofluorobenzene* | *98.0* | | | *80.0-120* | | *04/13/2017 21:00* | WG969550 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 2710 | | 82.5 | 250 | 1 | 04/13/2017 12:41 | WG969437 |
| Residual Range Organics (RRO) | 499 | J | 165 | 500 | 1 | 04/13/2017 12:41 | WG969437 |
| *(S) o-Terphenyl* | *118* | | | *52.0-156* | | *04/13/2017 12:41* | WG969437 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 04/13/2017 21:18 | WG969550 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/13/2017 21:18 | WG969550 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 04/13/2017 21:18 | WG969550 |
| Total Xylenes | 3.02 | | 1.06 | 3.00 | 1 | 04/13/2017 21:18 | WG969550 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* | | *04/13/2017 21:18* | WG969550 |
| *(S) Dibromofluoromethane* | *93.4* | | | *76.0-123* | | *04/13/2017 21:18* | WG969550 |
| *(S) a,a,a-Trifluorotoluene* | *106* | | | *80.0-120* | | *04/13/2017 21:18* | WG969550 |
| *(S) 4-Bromofluorobenzene* | *99.9* | | | *80.0-120* | | *04/13/2017 21:18* | WG969550 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 4290 | | 82.5 | 250 | 1 | 04/13/2017 12:58 | WG969437 |
| Residual Range Organics (RRO) | 651 | | 165 | 500 | 1 | 04/13/2017 12:58 | WG969437 |
| *(S) o-Terphenyl* | *112* | | | *52.0-156* | | *04/13/2017 12:58* | WG969437 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 04/13/2017 21:37 | WG969550 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/13/2017 21:37 | WG969550 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 04/13/2017 21:37 | WG969550 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 04/13/2017 21:37 | WG969550 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* | | *04/13/2017 21:37* | WG969550 |
| *(S) Dibromofluoromethane* | *94.5* | | | *76.0-123* | | *04/13/2017 21:37* | WG969550 |
| *(S) a,a,a-Trifluorotoluene* | *105* | | | *80.0-120* | | *04/13/2017 21:37* | WG969550 |
| *(S) 4-Bromofluorobenzene* | *99.5* | | | *80.0-120* | | *04/13/2017 21:37* | WG969550 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 2480 | | 82.5 | 250 | 1 | 04/13/2017 13:15 | WG969437 |
| Residual Range Organics (RRO) | 582 | | 165 | 500 | 1 | 04/13/2017 13:15 | WG969437 |
| *(S) o-Terphenyl* | *134* | | | *52.0-156* | | *04/13/2017 13:15* | WG969437 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | 2.85 | | 0.331 | 1.00 | 1 | 04/13/2017 21:55 | WG969550 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/13/2017 21:55 | WG969550 |
| Ethylbenzene | 16.2 | | 0.384 | 1.00 | 1 | 04/13/2017 21:55 | WG969550 |
| Total Xylenes | 96.2 | | 1.06 | 3.00 | 1 | 04/13/2017 21:55 | WG969550 |
| *(S) Toluene-d8* | *105* | | | *80.0-120* | | *04/13/2017 21:55* | WG969550 |
| *(S) Dibromofluoromethane* | *94.7* | | | *76.0-123* | | *04/13/2017 21:55* | WG969550 |
| *(S) a,a,a-Trifluorotoluene* | *106* | | | *80.0-120* | | *04/13/2017 21:55* | WG969550 |
| *(S) 4-Bromofluorobenzene* | *102* | | | *80.0-120* | | *04/13/2017 21:55* | WG969550 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 132 | J | 82.5 | 250 | 1 | 04/13/2017 13:31 | WG969437 |
| Residual Range Organics (RRO) | 299 | J | 165 | 500 | 1 | 04/13/2017 13:31 | WG969437 |
| *(S) o-Terphenyl* | *109* | | | *52.0-156* | | *04/13/2017 13:31* | WG969437 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Benzene | 1.87 | | 0.331 | 1.00 | 1 | 04/17/2017 23:49 | WG969550 |
| Toluene | 0.454 | J | 0.412 | 1.00 | 1 | 04/17/2017 23:49 | WG969550 |
| Ethylbenzene | 53.6 | | 0.384 | 1.00 | 1 | 04/17/2017 23:49 | WG969550 |
| Total Xylenes | 25.0 | | 1.06 | 3.00 | 1 | 04/17/2017 23:49 | WG969550 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* | | *04/17/2017 23:49* | WG969550 |
| *(S) Dibromofluoromethane* | *95.6* | | | *76.0-123* | | *04/17/2017 23:49* | WG969550 |
| *(S) a,a,a-Trifluorotoluene* | *106* | | | *80.0-120* | | *04/17/2017 23:49* | WG969550 |
| *(S) 4-Bromofluorobenzene* | *113* | | | *80.0-120* | | *04/17/2017 23:49* | WG969550 |

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

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 70300 | | 1650 | 5000 | 20 | 04/13/2017 14:38 | WG969437 |
| Residual Range Organics (RRO) | 6890 | J | 3300 | 10000 | 20 | 04/13/2017 14:38 | WG969437 |
| *(S) o-Terphenyl* | *2.56* | J7 | | *52.0-156* | | *04/13/2017 14:38* | WG969437 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Benzene | 1.13 | | 0.331 | 1.00 | 1 | 04/13/2017 22:14 | WG969550 |
| Toluene | 0.921 | J | 0.412 | 1.00 | 1 | 04/13/2017 22:14 | WG969550 |
| Ethylbenzene | 28.4 | | 0.384 | 1.00 | 1 | 04/13/2017 22:14 | WG969550 |
| Total Xylenes | 77.5 | | 1.06 | 3.00 | 1 | 04/13/2017 22:14 | WG969550 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* | | *04/13/2017 22:14* | WG969550 |
| *(S) Dibromofluoromethane* | *94.8* | | | *76.0-123* | | *04/13/2017 22:14* | WG969550 |
| *(S) a,a,a-Trifluorotoluene* | *107* | | | *80.0-120* | | *04/13/2017 22:14* | WG969550 |
| *(S) 4-Bromofluorobenzene* | *103* | | | *80.0-120* | | *04/13/2017 22:14* | WG969550 |

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

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 4900 | | 412 | 1250 | 5 | 04/13/2017 14:04 | WG969437 |
| Residual Range Organics (RRO) | 1090 | J | 825 | 2500 | 5 | 04/13/2017 14:04 | WG969437 |
| *(S) o-Terphenyl* | *118* | | | *52.0-156* | | *04/13/2017 14:04* | WG969437 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 04/13/2017 22:32 | WG969550 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/13/2017 22:32 | WG969550 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 04/13/2017 22:32 | WG969550 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 04/13/2017 22:32 | WG969550 |
| *(S) Toluene-d8* | *105* | | | *80.0-120* | | *04/13/2017 22:32* | WG969550 |
| *(S) Dibromofluoromethane* | *92.7* | | | *76.0-123* | | *04/13/2017 22:32* | WG969550 |
| *(S) a,a,a-Trifluorotoluene* | *106* | | | *80.0-120* | | *04/13/2017 22:32* | WG969550 |
| *(S) 4-Bromofluorobenzene* | *99.5* | | | *80.0-120* | | *04/13/2017 22:32* | WG969550 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 5790 | | 412 | 1250 | 5 | 04/13/2017 14:21 | WG969437 |
| Residual Range Organics (RRO) | 2130 | J | 825 | 2500 | 5 | 04/13/2017 14:21 | WG969437 |
| *(S) o-Terphenyl* | *114* | | | *52.0-156* | | *04/13/2017 14:21* | WG969437 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | 0.604 | J | 0.331 | 1.00 | 1 | 04/14/2017 06:19 | WG970361 |
| Toluene | 1.19 | | 0.412 | 1.00 | 1 | 04/14/2017 06:19 | WG970361 |
| Ethylbenzene | 5.52 | | 0.384 | 1.00 | 1 | 04/14/2017 06:19 | WG970361 |
| Total Xylenes | 37.6 | | 1.06 | 3.00 | 1 | 04/14/2017 06:19 | WG970361 |
| *(S) Toluene-d8* | *101* | | | *80.0-120* | | *04/14/2017 06:19* | WG970361 |
| *(S) Dibromofluoromethane* | *100* | | | *76.0-123* | | *04/14/2017 06:19* | WG970361 |
| *(S) a,a,a-Trifluorotoluene* | *96.7* | | | *80.0-120* | | *04/14/2017 06:19* | WG970361 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *04/14/2017 06:19* | WG970361 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 23700 | | 660 | 2000 | 10 | 04/19/2017 14:49 | WG969874 |
| Residual Range Organics (RRO) | 9550 | | 825 | 2500 | 10 | 04/19/2017 14:49 | WG969874 |
| *(S) o-Terphenyl* | *302* | J1 | | *52.0-156* | | *04/19/2017 14:49* | WG969874 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | 1.86 | | 0.331 | 1.00 | 1 | 04/14/2017 06:34 | WG970361 |
| Toluene | 4.50 | | 0.412 | 1.00 | 1 | 04/14/2017 06:34 | WG970361 |
| Ethylbenzene | 15.6 | | 0.384 | 1.00 | 1 | 04/14/2017 06:34 | WG970361 |
| Total Xylenes | 169 | | 1.06 | 3.00 | 1 | 04/14/2017 06:34 | WG970361 |
| *(S) Toluene-d8* | *101* | | | *80.0-120* | | *04/14/2017 06:34* | WG970361 |
| *(S) Dibromofluoromethane* | *98.3* | | | *76.0-123* | | *04/14/2017 06:34* | WG970361 |
| *(S) a,a,a-Trifluorotoluene* | *97.2* | | | *80.0-120* | | *04/14/2017 06:34* | WG970361 |
| *(S) 4-Bromofluorobenzene* | *106* | | | *80.0-120* | | *04/14/2017 06:34* | WG970361 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 25700 | | 825 | 2500 | 10 | 04/13/2017 18:12 | WG969874 |
| Residual Range Organics (RRO) | 4050 | J | 1650 | 5000 | 10 | 04/13/2017 18:12 | WG969874 |
| *(S) o-Terphenyl* | *105* | | | *52.0-156* | | *04/13/2017 18:12* | WG969874 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | 1.74 | | 0.331 | 1.00 | 1 | 04/14/2017 06:50 | WG970361 |
| Toluene | 4.44 | | 0.412 | 1.00 | 1 | 04/14/2017 06:50 | WG970361 |
| Ethylbenzene | 16.4 | | 0.384 | 1.00 | 1 | 04/14/2017 06:50 | WG970361 |
| Total Xylenes | 173 | | 1.06 | 3.00 | 1 | 04/14/2017 06:50 | WG970361 |
| *(S) Toluene-d8* | *100* | | | *80.0-120* | | *04/14/2017 06:50* | WG970361 |
| *(S) Dibromofluoromethane* | *92.5* | | | *76.0-123* | | *04/14/2017 06:50* | WG970361 |
| *(S) a,a,a-Trifluorotoluene* | *96.8* | | | *80.0-120* | | *04/14/2017 06:50* | WG970361 |
| *(S) 4-Bromofluorobenzene* | *109* | | | *80.0-120* | | *04/14/2017 06:50* | WG970361 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 25400 | | 825 | 2500 | 10 | 04/13/2017 18:28 | WG969874 |
| Residual Range Organics (RRO) | 5050 | | 1650 | 5000 | 10 | 04/13/2017 18:28 | WG969874 |
| *(S) o-Terphenyl* | *149* | | | *52.0-156* | | *04/13/2017 18:28* | WG969874 |

## Method Blank (MB)

(MB) R3211325-2 04/13/17 16:34

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Benzene | U | | 0.331 | 1.00 |
| Ethylbenzene | U | | 0.384 | 1.00 |
| Toluene | U | | 0.412 | 1.00 |
| Xylenes, Total | U | | 1.06 | 3.00 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* |
| *(S) Dibromofluoromethane* | *97.1* | | | *76.0-123* |
| *(S) a,a,a-Trifluorotoluene* | *105* | | | *80.0-120* |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* |

## Laboratory Control Sample (LCS)

(LCS) R3211325-1 04/13/17 15:56

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Benzene | 25.0 | 28.8 | 115 | 69.0-123 | |
| Ethylbenzene | 25.0 | 25.0 | 100 | 77.0-120 | |
| Toluene | 25.0 | 25.3 | 101 | 77.0-120 | |
| Xylenes, Total | 75.0 | 73.0 | 97.3 | 77.0-120 | |
| *(S) Toluene-d8* | | | *104* | *80.0-120* | |
| *(S) Dibromofluoromethane* | | | *95.3* | *76.0-123* | |
| *(S) a,a,a-Trifluorotoluene* | | | *105* | *80.0-120* | |
| *(S) 4-Bromofluorobenzene* | | | *97.8* | *80.0-120* | |

## Method Blank (MB)

(MB) R3211673-3 04/14/17 04:14

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Benzene | U | | 0.331 | 1.00 |
| Ethylbenzene | U | | 0.384 | 1.00 |
| Toluene | U | | 0.412 | 1.00 |
| Xylenes, Total | U | | 1.06 | 3.00 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* |
| *(S) Dibromofluoromethane* | *98.1* | | | *76.0-123* |
| *(S) a,a,a-Trifluorotoluene* | *99.4* | | | *80.0-120* |
| *(S) 4-Bromofluorobenzene* | *101* | | | *80.0-120* |

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

(LCS) R3211673-1 04/14/17 03:12 • (LCSD) R3211673-2 04/14/17 03:28

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Benzene | 25.0 | 22.6 | 23.4 | 90.4 | 93.7 | 69.0-123 | | | 3.59 | 20 |
| Ethylbenzene | 25.0 | 23.1 | 24.3 | 92.4 | 97.1 | 77.0-120 | | | 4.96 | 20 |
| Toluene | 25.0 | 22.8 | 23.6 | 91.3 | 94.2 | 77.0-120 | | | 3.09 | 20 |
| Xylenes, Total | 75.0 | 71.4 | 74.7 | 95.2 | 99.6 | 77.0-120 | | | 4.52 | 20 |
| *(S) Toluene-d8* | | | | *102* | *101* | *80.0-120* | | | | |
| *(S) Dibromofluoromethane* | | | | *97.5* | *97.9* | *76.0-123* | | | | |
| *(S) a,a,a-Trifluorotoluene* | | | | *98.9* | *98.5* | *80.0-120* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | *102* | *103* | *80.0-120* | | | | |

## Method Blank (MB)

(MB) R3210475-1 04/12/17 15:36

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Diesel Range Organics (DRO) | U | | 66.7 | 200 |
| Diesel Range Organics (DRO) | U | | 83.3 | 250 |
| Residual Range Organics (RRO) | U | | 83.3 | 250 |
| Residual Range Organics (RRO) | U | | 167 | 500 |
| *(S) o-Terphenyl* | *114* | | | *52.0-156* |

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

(LCS) R3210475-2 04/12/17 15:53 • (LCSD) R3210475-3 04/12/17 16:10

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Diesel Range Organics (DRO) | 750 | 1010 | 1080 | 135 | 143 | 50.0-150 | | | 5.79 | 20 |
| Residual Range Organics (RRO) | 750 | 839 | 900 | 112 | 120 | 50.0-150 | | | 6.97 | 20 |
| *(S) o-Terphenyl* | | | | *122* | *120* | *52.0-156* | | | | |

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

## Method Blank (MB)

(MB) R3210811-1 04/13/17 15:27

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Diesel Range Organics (DRO) | U | | 66.7 | 200 |
| Diesel Range Organics (DRO) | U | | 83.3 | 250 |
| Residual Range Organics (RRO) | U | | 83.3 | 250 |
| Residual Range Organics (RRO) | U | | 167 | 500 |
| *(S) o-Terphenyl* | *108* | | | *52.0-156* |

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

(LCS) R3210811-2 04/13/17 15:44 • (LCSD) R3210811-3 04/13/17 16:00

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Diesel Range Organics (DRO) | 750 | 907 | 912 | 121 | 122 | 50.0-150 | | | 0.530 | 20 |
| Residual Range Organics (RRO) | 750 | 725 | 757 | 96.7 | 101 | 50.0-150 | | | 4.31 | 20 |
| *(S) o-Terphenyl* | | | | *121* | *115* | *52.0-156* | | | | |

## Abbreviations and Definitions

| | |
|---|---|
| SDG | Sample Delivery Group. |
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| RPD | Relative Percent Difference. |
| (S) | Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media. |
| Rec. | Recovery. |

| Qualifier | Description |
|---|---|
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J1 | Surrogate recovery limits have been exceeded; values are outside upper control limits. |
| J7 | Surrogate recovery cannot be used for control limit evaluation due to dilution. |

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nevada | TN-03-2002-34 |
| Alaska | UST-080 | New Hampshire | 2975 |
| Arizona | AZ0612 | New Jersey–NELAP | TN002 |
| Arkansas | 88-0469 | New Mexico | TN00003 |
| California | 01157CA | New York | 11742 |
| Colorado | TN00003 | North Carolina | Env375 |
| Conneticut | PH-0197 | North Carolina [1] | DW21704 |
| Florida | E87487 | North Carolina [2] | 41 |
| Georgia | NELAP | North Dakota | R-140 |
| Georgia [1] | 923 | Ohio–VAP | CL0069 |
| Idaho | TN00003 | Oklahoma | 9915 |
| Illinois | 200008 | Oregon | TN200002 |
| Indiana | C-TN-01 | Pennsylvania | 68-02979 |
| Iowa | 364 | Rhode Island | 221 |
| Kansas | E-10277 | South Carolina | 84004 |
| Kentucky [1] | 90010 | South Dakota | n/a |
| Kentucky [2] | 16 | Tennessee [1 4] | 2006 |
| Louisiana | AI30792 | Texas | T 104704245-07-TX |
| Maine | TN0002 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | 6157585858 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 109 |
| Minnesota | 047-999-395 | Washington | C1915 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 9980939910 |
| Montana | CERT0086 | Wyoming | A2LA |
| Nebraska | NE-OS-15-05 | | |

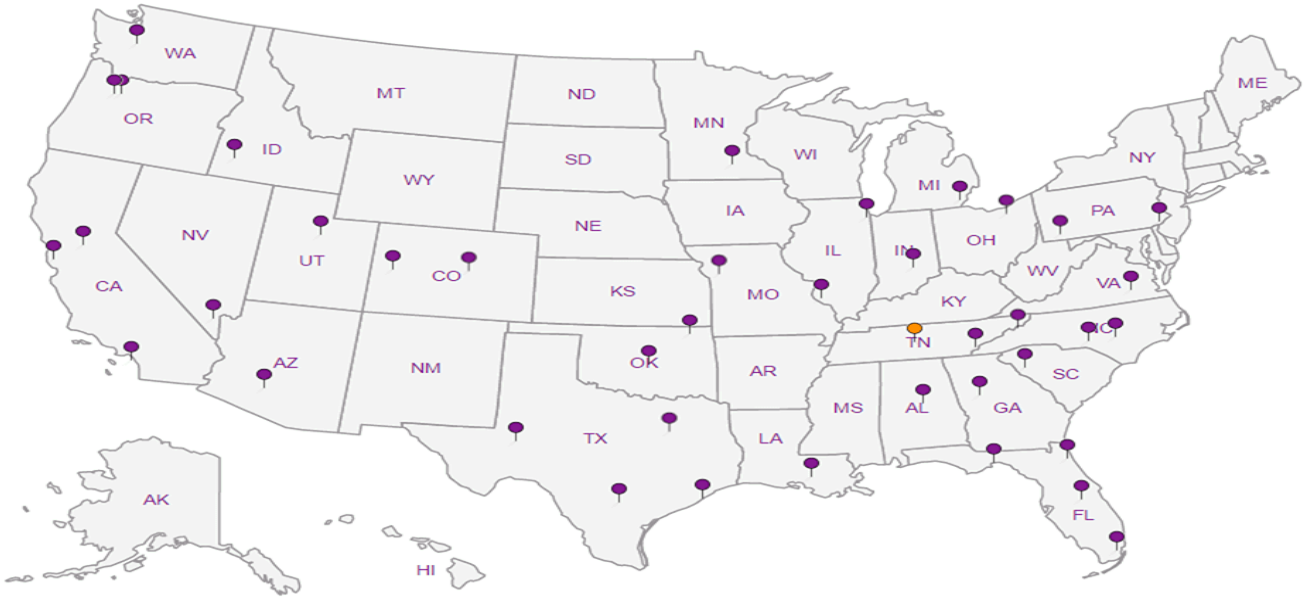
## Third Party & Federal Accreditations

| | | | |
|---|---|---|---|
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | S-67674 |
| EPA–Crypto | TN00003 | | |

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

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



**APEX Companies - Portland, OR**

3015 SW First Avenue
Portland, OR 97201-4707

Billing Information:
**Accounts Payable- Cindi Joy Staller**
3015 SW First Avenue
Portland, OR 97201-4707

Report to: **Kristina Sumner**

Email To: **kristina.sumner@apexcos.com**

Project Description: **AT&T Bothell**

City/State Collected: Bothell, WA

Phone: **503-924-4704**
Fax: **503-943-6357**

Client Project # **320002337**

Lab Project # **ASHCREPOR-320002337**

Collected by (print): JM, MM, AC

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | BTEX 8260C 40mlAmb-HCl | NWTPHDX 40mlAmb-HCl-BT | Pres Chk | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sw-2 | G | GW | X | 4/6/17 | 1740 | 4 | X | X | | | 01 |
| Sw-1 | G | GW | X | 4/6/17 | 1800 | 4 | X | X | | | 02 |
| Sw-3 | G | GW | X | 4/6/17 | 1725 | 4 | X | X | | | 03 |
| Mw-3 | G | GW | X | 4/6/17 | 1548 | 4 | X | X | | | 04 |
| Mw-1 | G | GW | X | 4/6/17 | 1720 | 4 | X | X | | | 05 |
| Mw-2 | G | GW | X | 4/6/17 | 1647 | 4 | X | X | | | 06 |
| Mw-6 | G | GW | X | 4/7/17 | 0858 | 4 | X | X | | | 07 |
| Mw-5 | G | GW | X | 4/7/17 | 0848 | 4 | X | X | | | 08 |
| Mw-7 | G | GW | X | 4/7/17 | 0825 | 4 | X | X | | | 09 |
| B-27 | G | GW | X | 4/7/17 | 1030 | 4 | X | X | | | 10 |

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LABORATORIES
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12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 401511
L234
Tabl
Acctnum: ASHCREP...
Template: T122323
Prelogin: P596360
TSR: 110 - Brian Ford
PB:
Shipped Via:

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

Remarks:

pH ___ Temp ___
Flow ___ Other ___

Samples returned via: ___ UPS ___ FedEx ✓ Courier FEI

Tracking # 6645 0387 3030

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

| Relinquished by: (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| | 4/7/17 | 1342 | |
| Relinquished by: (Signature) | Date: | Time: | Received by: (Signature) |
| Relinquished by: (Signature) | Date: | Time: | Received for lab by: (Signature) |

Trip Blank Received: (Yes) / No
HCL / MeoH
TBR

Temp: 2.1 °C Bottles Received: 92

Date: 4/8/17 Time: 9:00

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

**APEX Companies - Portland, OR**

3015 SW First Avenue
Portland, OR 97201-4707

Billing Information:
Accounts Payable- Cindi Joy Staller
3015 SW First Avenue
Portland, OR 97201-4707

Pres Chk

Report to: Kristina Sumner

Email To: kristina.sumner@apexcos.com

Project Description: AT&T Bothell

City/State Collected: Bothell, WA

Phone: 503-924-4704
Fax: 503-943-6357

Client Project # 320002337

Lab Project # ASHCREPOR-320002337

Collected by (print): JM, MM, AC

Site/Facility ID #

P.O. #

Collected by (signature):

Quote #

Immediately Packed on Ice N ___ Y Y

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

Date Results Needed

Analysis / Container / Preservative

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | BTEX 8260C 40mlAmb-HCl | NWTPHDX 40mlAmb-HCl-BT | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|
| MW 4 | G | GW | | 4-7-17 | 0809 | 4 | X | X | | 11 |
| MW 4 DUP | | GW | | 4-7-17 | 0809 | 4 | X | X | | 12 |
| OW-2 | | GW | | 4-7-17 | 1045 | 4 | X | X | | 13 |
| OW-1 | | GW | | 4-7-17 | 1032 | 4 | X | X | | 14 |
| OW-3 | | GW | | 4-7-17 | 1100 | 4 | X | X | | 15 |
| MW-8 | | GW | | 4-7-17 | 0938 | 4 | X | X | | 16 |
| B-28 | | GW | | 4-7-17 | 0938 | 4 | X | X | | 17 |
| B-19 | | GW | | 4-7-17 | 0956 | 4 | X | X | | A |
| B-20 | | GW | | 4-7-17 | 1125 | 4 | X | X | | 19 |
| B-26 | ↓ | GW | | 4-7-17 | 1110 | 4 | X | X | | 20 |

Chain of Custody Page ___ of ___

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Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # 90154

Table #

Acctnum: ASHCREPOR

Template: T122323

Prelogin: P596360

TSR: 110 - Brian Ford

PB:

Shipped Via:

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

Remarks:

pH ___ Temp ___

Flow ___ Other ___

Samples returned via: __ UPS __ FedEx __ Courier FEI

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| | 4/7/17 | 1342 | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) |

Trip Blank Received: Yes / No
1 HCL / MeoH TBR

Temp: 2.1 °C Bottles Received: 92

Date: 4/8/17 Time: 9:00

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

**APEX Companies - Portland, OR**

3015 SW First Avenue
Portland, OR 97201-4707

Billing Information:
Accounts Payable- Cindi Joy Staller
3015 SW First Avenue
Portland, OR 97201-4707

Pres Chk

Report to: Kristina Sumner

Email To: kristina.sumner@apexcos.com

Project Description: AT&T Bothell

City/State Collected: Bothell, WA

Phone: 503-924-4704
Fax: 503-943-6357

Client Project # 320002337

Lab Project # ASHCREPOR-320002337

Collected by (print): JMM, AC

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

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

Quote #

Date Results Needed

Analysis / Container / Preservative

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | BTEX 8260C 40mlAmb-HCl | NWTPHDX 40mlAmb-HCl-BT | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|
| B-25 | G | GW | X | 4-7-17 | 1150 | 4 | X | X | | 21 |
| B-21 | G | GW | X | 4-7-17 | 1210 | 4 | X | X | | 22 |
| B-21 DUP | G | GW | X | 4-7-17 | 1210 | 4 | X | X | | 23 |

Chain of Custody Page ___ of ___

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12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 901571

Table #

Acctnum: ASHCREPOR
Template: T122323
Prelogin: P596360
TSR: 110 - Brian Ford
PB:

Shipped Via:

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

Remarks:

pH ___ Temp ___
Flow ___ Other ___

Samples returned via: ___ UPS ___ FedEx ___ Courier FEI

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| | 4/7/17 | 1342 | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
| | | | |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) |
| | | | |

Trip Blank Received: Yes / No
1 HCL / MeoH
TBR

Temp: 2.1 °C Bottles Received: 12

Date: 4/8/17 Time: 9:00

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

# ANALYTICAL REPORT

April 28, 2017

## APEX Companies - Portland, OR

| | |
|---|---|
| Sample Delivery Group: | L904741 |
| Samples Received: | 04/25/2017 |
| Project Number: | 320002337 |
| Description: | AT&T Bothell |
| Site: | BOTHELL,WA |
| Report To: | Kristina Sumner<br>3015 SW First Avenue<br>Portland, OR 97201-4707 |

Entire Report Reviewed By:

Brian Ford

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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## EW-4 L904741-01 GW

Collected by: K. Sumner
Collected date/time: 04/24/17 10:34
Received date/time: 04/25/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG974290 | 1 | 04/27/17 01:54 | 04/27/17 01:54 | JBE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG973811 | 1 | 04/25/17 22:35 | 04/26/17 21:48 | TH |

## EW-5 L904741-02 GW

Collected by: K. Sumner
Collected date/time: 04/24/17 11:25
Received date/time: 04/25/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG974290 | 1 | 04/27/17 02:11 | 04/27/17 02:11 | JBE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG973811 | 1 | 04/25/17 22:35 | 04/26/17 22:05 | TH |

## EW-2 L904741-03 GW

Collected by: K. Sumner
Collected date/time: 04/24/17 12:35
Received date/time: 04/25/17 08:45

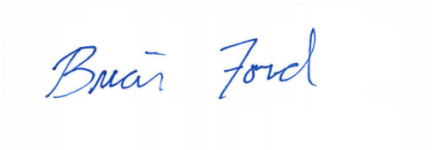
| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG974290 | 1 | 04/27/17 02:28 | 04/27/17 02:28 | JBE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG973811 | 1 | 04/25/17 22:35 | 04/26/17 22:22 | TH |

## EW-7 L904741-04 GW

Collected by: K. Sumner
Collected date/time: 04/24/17 13:45
Received date/time: 04/25/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG974290 | 1 | 04/27/17 02:46 | 04/27/17 02:46 | JBE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG973811 | 1 | 04/25/17 22:35 | 04/26/17 22:39 | TH |

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



Brian Ford
Technical Service Representative

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | 0.490 | J | 0.331 | 1.00 | 1 | 04/27/2017 01:54 | WG974290 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/27/2017 01:54 | WG974290 |
| Ethylbenzene | 4.58 | | 0.384 | 1.00 | 1 | 04/27/2017 01:54 | WG974290 |
| Total Xylenes | 1.21 | J | 1.06 | 3.00 | 1 | 04/27/2017 01:54 | WG974290 |
| *(S) Toluene-d8* | *107* | | | *80.0-120* | | *04/27/2017 01:54* | WG974290 |
| *(S) Dibromofluoromethane* | *114* | | | *76.0-123* | | *04/27/2017 01:54* | WG974290 |
| *(S) a,a,a-Trifluorotoluene* | *94.8* | | | *80.0-120* | | *04/27/2017 01:54* | WG974290 |
| *(S) 4-Bromofluorobenzene* | *89.2* | | | *80.0-120* | | *04/27/2017 01:54* | WG974290 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 1160 | | 66.0 | 200 | 1 | 04/26/2017 21:48 | WG973811 |
| Residual Range Organics (RRO) | 278 | | 82.5 | 250 | 1 | 04/26/2017 21:48 | WG973811 |
| *(S) o-Terphenyl* | *110* | | | *52.0-156* | | *04/26/2017 21:48* | WG973811 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | 0.772 | J | 0.331 | 1.00 | 1 | 04/27/2017 02:11 | WG974290 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/27/2017 02:11 | WG974290 |
| Ethylbenzene | 6.59 | | 0.384 | 1.00 | 1 | 04/27/2017 02:11 | WG974290 |
| Total Xylenes | 1.50 | J | 1.06 | 3.00 | 1 | 04/27/2017 02:11 | WG974290 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* | | *04/27/2017 02:11* | WG974290 |
| *(S) Dibromofluoromethane* | *115* | | | *76.0-123* | | *04/27/2017 02:11* | WG974290 |
| *(S) a,a,a-Trifluorotoluene* | *92.4* | | | *80.0-120* | | *04/27/2017 02:11* | WG974290 |
| *(S) 4-Bromofluorobenzene* | *90.1* | | | *80.0-120* | | *04/27/2017 02:11* | WG974290 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 1840 | | 66.0 | 200 | 1 | 04/26/2017 22:05 | WG973811 |
| Residual Range Organics (RRO) | 467 | | 82.5 | 250 | 1 | 04/26/2017 22:05 | WG973811 |
| *(S) o-Terphenyl* | *118* | | | *52.0-156* | | *04/26/2017 22:05* | WG973811 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | 0.474 | J | 0.331 | 1.00 | 1 | 04/27/2017 02:28 | WG974290 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/27/2017 02:28 | WG974290 |
| Ethylbenzene | 4.47 | | 0.384 | 1.00 | 1 | 04/27/2017 02:28 | WG974290 |
| Total Xylenes | 1.20 | J | 1.06 | 3.00 | 1 | 04/27/2017 02:28 | WG974290 |
| *(S) Toluene-d8* | *105* | | | *80.0-120* | | *04/27/2017 02:28* | WG974290 |
| *(S) Dibromofluoromethane* | *113* | | | *76.0-123* | | *04/27/2017 02:28* | WG974290 |
| *(S) a,a,a-Trifluorotoluene* | *93.6* | | | *80.0-120* | | *04/27/2017 02:28* | WG974290 |
| *(S) 4-Bromofluorobenzene* | *90.0* | | | *80.0-120* | | *04/27/2017 02:28* | WG974290 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 2250 | | 66.0 | 200 | 1 | 04/26/2017 22:22 | WG973811 |
| Residual Range Organics (RRO) | 608 | | 82.5 | 250 | 1 | 04/26/2017 22:22 | WG973811 |
| *(S) o-Terphenyl* | *116* | | | *52.0-156* | | *04/26/2017 22:22* | WG973811 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 04/27/2017 02:46 | WG974290 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/27/2017 02:46 | WG974290 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 04/27/2017 02:46 | WG974290 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 04/27/2017 02:46 | WG974290 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* | | *04/27/2017 02:46* | WG974290 |
| *(S) Dibromofluoromethane* | *111* | | | *76.0-123* | | *04/27/2017 02:46* | WG974290 |
| *(S) a,a,a-Trifluorotoluene* | *92.6* | | | *80.0-120* | | *04/27/2017 02:46* | WG974290 |
| *(S) 4-Bromofluorobenzene* | *89.9* | | | *80.0-120* | | *04/27/2017 02:46* | WG974290 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 166 | J | 66.0 | 200 | 1 | 04/26/2017 22:39 | WG973811 |
| Residual Range Organics (RRO) | 105 | J | 82.5 | 250 | 1 | 04/26/2017 22:39 | WG973811 |
| *(S) o-Terphenyl* | *102* | | | *52.0-156* | | *04/26/2017 22:39* | WG973811 |

## Method Blank (MB)

(MB) R3214161-3 04/26/17 21:33

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Benzene | U | | 0.331 | 1.00 |
| Ethylbenzene | U | | 0.384 | 1.00 |
| Toluene | U | | 0.412 | 1.00 |
| Xylenes, Total | U | | 1.06 | 3.00 |
| *(S) Toluene-d8* | *105* | | | *80.0-120* |
| *(S) Dibromofluoromethane* | *111* | | | *76.0-123* |
| *(S) a,a,a-Trifluorotoluene* | *94.7* | | | *80.0-120* |
| *(S) 4-Bromofluorobenzene* | *90.8* | | | *80.0-120* |

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

(LCS) R3214161-1 04/26/17 20:41 • (LCSD) R3214161-2 04/26/17 20:58

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Benzene | 25.0 | 26.4 | 26.0 | 106 | 104 | 69.0-123 | | | 1.55 | 20 |
| Ethylbenzene | 25.0 | 24.8 | 25.2 | 99.2 | 101 | 77.0-120 | | | 1.66 | 20 |
| Toluene | 25.0 | 24.6 | 25.6 | 98.2 | 102 | 77.0-120 | | | 4.01 | 20 |
| Xylenes, Total | 75.0 | 73.1 | 75.9 | 97.5 | 101 | 77.0-120 | | | 3.76 | 20 |
| *(S) Toluene-d8* | | | | *101* | *103* | *80.0-120* | | | | |
| *(S) Dibromofluoromethane* | | | | *106* | *104* | *76.0-123* | | | | |
| *(S) a,a,a-Trifluorotoluene* | | | | *93.4* | *94.2* | *80.0-120* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | *95.8* | *96.6* | *80.0-120* | | | | |

## Method Blank (MB)

(MB) R3213880-1 04/26/17 14:48

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Diesel Range Organics (DRO) | U | | 66.7 | 200 |
| Residual Range Organics (RRO) | U | | 83.3 | 250 |
| *(S) o-Terphenyl* | *94.9* | | | *52.0-156* |

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

(LCS) R3213880-2 04/26/17 15:05 • (LCSD) R3213880-3 04/26/17 15:22

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Diesel Range Organics (DRO) | 750 | 807 | 781 | 108 | 104 | 50.0-150 | | | 3.26 | 20 |
| Residual Range Organics (RRO) | 750 | 825 | 816 | 110 | 109 | 50.0-150 | | | 1.07 | 20 |
| *(S) o-Terphenyl* | | | | *107* | *108* | *52.0-156* | | | | |

## Abbreviations and Definitions

| | |
|---|---|
| SDG | Sample Delivery Group. |
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| RPD | Relative Percent Difference. |
| (S) | Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media. |
| Rec. | Recovery. |

| Qualifier | Description |
|---|---|
| J | The identification of the analyte is acceptable; the reported value is an estimate. |

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

| | |
|---|---|
| Alabama | 40660 |
| Alaska | UST-080 |
| Arizona | AZ0612 |
| Arkansas | 88-0469 |
| California | 01157CA |
| Colorado | TN00003 |
| Conneticut | PH-0197 |
| Florida | E87487 |
| Georgia | NELAP |
| Georgia [1] | 923 |
| Idaho | TN00003 |
| Illinois | 200008 |
| Indiana | C-TN-01 |
| Iowa | 364 |
| Kansas | E-10277 |
| Kentucky [1] | 90010 |
| Kentucky [2] | 16 |
| Louisiana | AI30792 |
| Maine | TN0002 |
| Maryland | 324 |
| Massachusetts | M-TN003 |
| Michigan | 9958 |
| Minnesota | 047-999-395 |
| Mississippi | TN00003 |
| Missouri | 340 |
| Montana | CERT0086 |
| Nebraska | NE-OS-15-05 |
| Nevada | TN-03-2002-34 |
| New Hampshire | 2975 |
| New Jersey–NELAP | TN002 |
| New Mexico | TN00003 |
| New York | 11742 |
| North Carolina | Env375 |
| North Carolina [1] | DW21704 |
| North Carolina [2] | 41 |
| North Dakota | R-140 |
| Ohio–VAP | CL0069 |
| Oklahoma | 9915 |
| Oregon | TN200002 |
| Pennsylvania | 68-02979 |
| Rhode Island | 221 |
| South Carolina | 84004 |
| South Dakota | n/a |
| Tennessee [1 4] | 2006 |
| Texas | T 104704245-07-TX |
| Texas [5] | LAB0152 |
| Utah | 6157585858 |
| Vermont | VT2006 |
| Virginia | 109 |
| Washington | C1915 |
| West Virginia | 233 |
| Wisconsin | 9980939910 |
| Wyoming | A2LA |

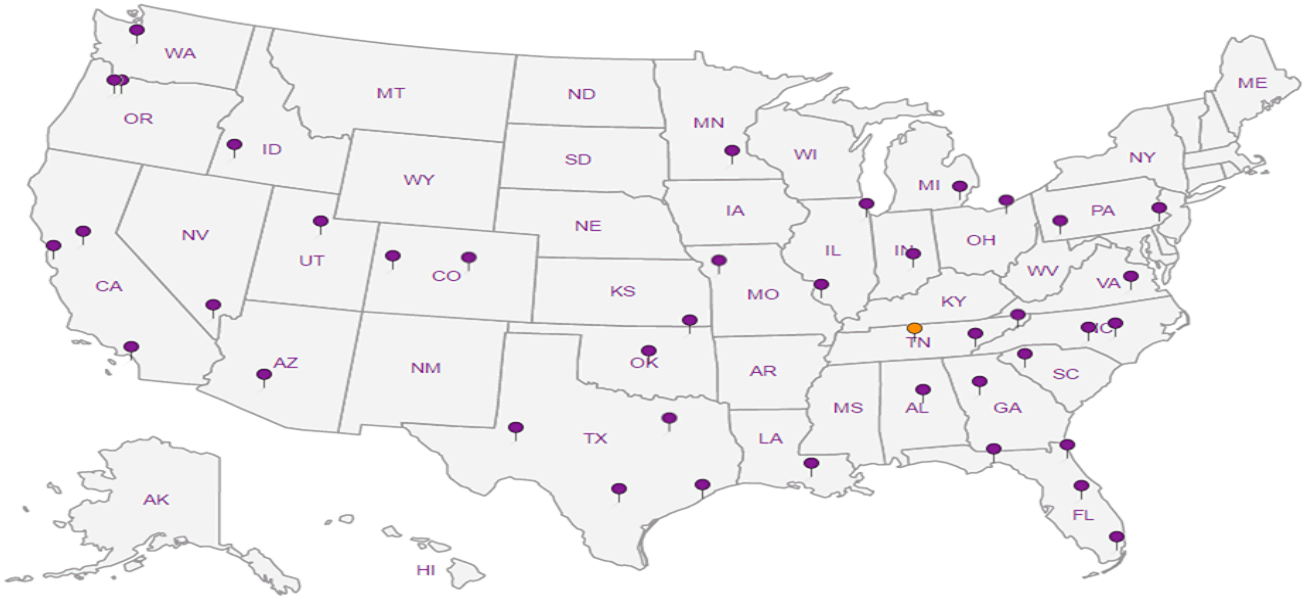
## Third Party & Federal Accreditations

| | |
|---|---|
| A2LA – ISO 17025 | 1461.01 |
| A2LA – ISO 17025 [5] | 1461.02 |
| Canada | 1461.01 |
| EPA–Crypto | TN00003 |
| AIHA-LAP,LLC | 100789 |
| DOD | 1461.01 |
| USDA | S-67674 |

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

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



**APEX Companies - Portland, OR**

3015 SW First Avenue
Portland, OR 97201-4707

Billing Information:
Accounts Payable- Cindi Joy Staller
3015 SW First Avenue
Portland, OR 97201-4707

Pres Chk

Report to: **Kristina Sumner**

Email To: **kristina.sumner@apexcos.com**

Project Description: **AT&T Bothell**

City/State Collected: Bothell, WA

Phone: **503-924-4704**
Fax: **503-943-6357**

Client Project # **320002337**

Lab Project # **ASHCREPOR-320002337**

Collected by (print): K. Sumner

Site/Facility ID # **BOTHELL,WA**

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | BTEX 8260C 40mlAmb-HCl | NWTPHDX 40mlAmb-HCl-BT | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EW-4 | | GW | | 4/24/17 | 1034 | 4 | X | X | | | | | | | | | -01 |
| EW-5 | | GW | | 4/24/17 | 1125 | 4 | X | X | | | | | | | | | -02 |
| EW-2 | | GW | | 4/24/17 | 1235 | 4 | X | X | | | | | | | | | -03 |
| EW-7 | | GW | | 4/24/17 | 1345 | 4 | X | X | | | | | | | | | -04 |
| | | GW | | | | 4 | X | X | | | | | | | | | |
| | | GW | | | | 4 | X | X | | | | | | | | | |
| | | GW | | | | 4 | X | X | | | | | | | | | |
| | | GW | | | | 4 | X | X | | | | | | | | | |
| | | GW | | | | 4 | X | X | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LABS
VOTE LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L904741

Tab K207

Acctnum: **ASHCREPOR**
Template: **T122873**
Prelogin: **P597857**
TSR: **110 - Brian Ford**
PB:
Shipped Via:

Remarks | Sample # (lab only)

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

**Remarks:**

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 6777 0000 3933

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCl / MeoH TBR | If preservation required by Login: Date/Time |
|---|---|---|---|---|---|
| | 4/24/17 | 1555 | | 1 | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: 2.5 °C Bottles Received: 16 | |
| | 4/24/17 | 1555 | | | |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: 4-25-17 Time: 8:45 | Hold: / Condition: NCF / OK |
| | | | | | |

# ANALYTICAL REPORT

October 31, 2017

## APEX Companies - Portland, OR

| | |
|---|---|
| Sample Delivery Group: | L944908 |
| Samples Received: | 10/19/2017 |
| Project Number: | 2337 |
| Description: | ATT Bothell |

Report To: Kristina Sumner
Two Union Square
Suite 4200
Seattle, WA 98101

Entire Report Reviewed By:

Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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## EW-1 L944908-01 GW

Collected by: K. Sumner | Collected date/time: 10/17/17 10:08 | Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033563 | 1 | 10/19/17 22:40 | 10/19/17 22:40 | ACE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 1 | 10/22/17 17:43 | 10/23/17 13:33 | LM |

## EW-2 L944908-02 GW

Collected by: K. Sumner | Collected date/time: 10/17/17 11:22 | Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033563 | 1 | 10/19/17 22:59 | 10/19/17 22:59 | ACE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 1 | 10/22/17 17:43 | 10/23/17 13:49 | LM |

## EW-4 L944908-03 GW

Collected by: K. Sumner | Collected date/time: 10/17/17 11:54 | Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033563 | 1 | 10/19/17 23:19 | 10/19/17 23:19 | ACE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 1 | 10/22/17 17:43 | 10/23/17 14:05 | LM |

## EW-5 L944908-04 GW

Collected by: K. Sumner | Collected date/time: 10/17/17 12:26 | Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033563 | 1 | 10/19/17 23:38 | 10/19/17 23:38 | ACE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 1 | 10/22/17 17:43 | 10/23/17 14:21 | LM |

## EW-7 L944908-05 GW

Collected by: K. Sumner | Collected date/time: 10/17/17 13:34 | Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033563 | 1 | 10/19/17 23:57 | 10/19/17 23:57 | ACE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 1 | 10/22/17 17:43 | 10/23/17 14:37 | LM |

## EW-8 L944908-06 GW

Collected by: K. Sumner | Collected date/time: 10/17/17 14:15 | Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033563 | 1 | 10/20/17 00:16 | 10/20/17 00:16 | ACE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 1 | 10/22/17 17:43 | 10/23/17 14:54 | LM |

## EW-9 L944908-07 GW

Collected by: K. Sumner | Collected date/time: 10/17/17 15:27 | Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033563 | 1 | 10/20/17 00:35 | 10/20/17 00:35 | ACE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 1 | 10/22/17 17:43 | 10/23/17 15:10 | LM |

## MW-1 L944908-08 GW

Collected by: K. Sumner | Collected date/time: 10/17/17 09:50 | Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033563 | 1 | 10/20/17 00:54 | 10/20/17 00:54 | ACE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 1 | 10/22/17 17:43 | 10/23/17 15:26 | LM |

## MW-2 L944908-09 GW

Collected by: K. Sumner | Collected date/time: 10/17/17 10:24 | Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033563 | 1 | 10/20/17 01:14 | 10/20/17 01:14 | ACE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 1 | 10/22/17 17:43 | 10/23/17 15:42 | LM |

## MW-3 L944908-10 GW

Collected by: K. Sumner | Collected date/time: 10/17/17 11:00 | Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033563 | 1 | 10/20/17 01:33 | 10/20/17 01:33 | ACE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 1 | 10/22/17 17:43 | 10/23/17 15:58 | LM |

## MW-4 L944908-11 GW

Collected by: K. Sumner | Collected date/time: 10/17/17 11:41 | Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033563 | 1 | 10/20/17 01:52 | 10/20/17 01:52 | ACE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 1 | 10/22/17 17:43 | 10/23/17 18:03 | LM |

## MW-7 L944908-12 GW

Collected by: K. Sumner | Collected date/time: 10/17/17 13:05 | Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033563 | 1 | 10/20/17 02:11 | 10/20/17 02:11 | ACE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 1 | 10/22/17 17:43 | 10/23/17 18:19 | LM |

## MW-8 L944908-13 GW

Collected by: K. Sumner | Collected date/time: 10/17/17 13:45 | Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033563 | 1 | 10/20/17 02:30 | 10/20/17 02:30 | ACE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 1 | 10/22/17 17:43 | 10/23/17 18:35 | LM |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 5 | 10/22/17 17:43 | 10/25/17 14:00 | LM |

## MW-5 L944908-14 GW

Collected by: K. Sumner | Collected date/time: 10/17/17 14:24 | Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033563 | 1 | 10/20/17 02:49 | 10/20/17 02:49 | ACE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 1 | 10/22/17 17:43 | 10/23/17 18:51 | LM |

## MW-6 L944908-15 GW

Collected by: K. Sumner | Collected date/time: 10/17/17 15:18 | Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033563 | 1 | 10/20/17 03:09 | 10/20/17 03:09 | ACE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 1 | 10/22/17 17:43 | 10/23/17 19:07 | LM |

## MW-2DUP L944908-16 GW

Collected by: K. Sumner | Collected date/time: 10/17/17 10:24 | Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033563 | 1 | 10/20/17 03:28 | 10/20/17 03:28 | ACE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 1 | 10/22/17 17:43 | 10/23/17 19:23 | LM |

## OW-3 L944908-17 GW

Collected by: K. Sumner | Collected date/time: 10/18/17 11:24 | Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033563 | 1 | 10/20/17 03:47 | 10/20/17 03:47 | ACE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 1 | 10/22/17 17:43 | 10/23/17 19:39 | LM |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 5 | 10/22/17 17:43 | 10/25/17 14:17 | LM |

## B-20 L944908-18 GW

Collected by: K. Sumner | Collected date/time: 10/18/17 12:57 | Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033563 | 1 | 10/20/17 04:06 | 10/20/17 04:06 | ACE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 1 | 10/22/17 17:43 | 10/23/17 19:55 | LM |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 5 | 10/22/17 17:43 | 10/25/17 14:33 | LM |

## B-19 L944908-19 GW

Collected by: K. Sumner | Collected date/time: 10/18/17 12:10 | Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033563 | 1 | 10/20/17 04:25 | 10/20/17 04:25 | ACE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 1 | 10/22/17 17:43 | 10/23/17 20:10 | LM |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 5 | 10/22/17 17:43 | 10/25/17 14:49 | LM |

## B-21 L944908-20 GW

Collected by: K. Sumner | Collected date/time: 10/18/17 13:27 | Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033563 | 1 | 10/20/17 04:44 | 10/20/17 04:44 | ACE |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 1 | 10/22/17 17:43 | 10/23/17 20:26 | LM |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1033451 | 5 | 10/22/17 17:43 | 10/25/17 15:05 | LM |

## B-25 L944908-21 GW

Collected by: K. Sumner | Collected date/time: 10/18/17 13:27 | Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033565 | 1 | 10/20/17 01:15 | 10/20/17 01:15 | ACG |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1034369 | 1 | 10/23/17 09:35 | 10/23/17 23:41 | LM |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1034369 | 5 | 10/23/17 09:35 | 10/25/17 13:44 | LM |

## B-28 L944908-22 GW

Collected by: K. Sumner
Collected date/time: 10/18/17 12:07
Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033565 | 1 | 10/20/17 01:36 | 10/20/17 01:36 | ACG |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1034369 | 1 | 10/23/17 09:35 | 10/23/17 23:57 | LM |

## B-26 L944908-23 GW

Collected by: K. Sumner
Collected date/time: 10/18/17 13:01
Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033565 | 1 | 10/20/17 01:56 | 10/20/17 01:56 | ACG |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1034369 | 1 | 10/23/17 09:35 | 10/24/17 00:14 | LM |

## TRIP BLANK L944908-24 GW

Collected by: K. Sumner
Collected date/time: 10/18/17 00:00
Received date/time: 10/19/17 08:45

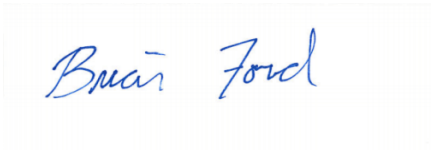
| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033565 | 1 | 10/20/17 00:55 | 10/20/17 00:55 | ACG |

## OW-2 L944908-25 GW

Collected by: K. Sumner
Collected date/time: 10/18/17 13:40
Received date/time: 10/19/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG1033565 | 25 | 10/24/17 17:27 | 10/24/17 17:27 | BMB |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1034369 | 50 | 10/23/17 09:35 | 10/24/17 04:35 | LM |

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Brian Ford
Technical Service Representative

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 10/19/2017 22:40 | WG1033563 |
| Toluene | U | | 0.412 | 1.00 | 1 | 10/19/2017 22:40 | WG1033563 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 10/19/2017 22:40 | WG1033563 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 10/19/2017 22:40 | WG1033563 |
| *(S) Toluene-d8* | *105* | | | *80.0-120* | | *10/19/2017 22:40* | WG1033563 |
| *(S) Dibromofluoromethane* | *101* | | | *76.0-123* | | *10/19/2017 22:40* | WG1033563 |
| *(S) a,a,a-Trifluorotoluene* | *104* | | | *80.0-120* | | *10/19/2017 22:40* | WG1033563 |
| *(S) 4-Bromofluorobenzene* | *106* | | | *80.0-120* | | *10/19/2017 22:40* | WG1033563 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 1360 | | 66.0 | 200 | 1 | 10/23/2017 13:33 | WG1033451 |
| Residual Range Organics (RRO) | 611 | | 82.5 | 250 | 1 | 10/23/2017 13:33 | WG1033451 |
| *(S) o-Terphenyl* | *109* | | | *52.0-156* | | *10/23/2017 13:33* | WG1033451 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 10/19/2017 22:59 | WG1033563 |
| Toluene | U | | 0.412 | 1.00 | 1 | 10/19/2017 22:59 | WG1033563 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 10/19/2017 22:59 | WG1033563 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 10/19/2017 22:59 | WG1033563 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* | | *10/19/2017 22:59* | WG1033563 |
| *(S) Dibromofluoromethane* | *98.6* | | | *76.0-123* | | *10/19/2017 22:59* | WG1033563 |
| *(S) a,a,a-Trifluorotoluene* | *107* | | | *80.0-120* | | *10/19/2017 22:59* | WG1033563 |
| *(S) 4-Bromofluorobenzene* | *103* | | | *80.0-120* | | *10/19/2017 22:59* | WG1033563 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 1520 | | 66.0 | 200 | 1 | 10/23/2017 13:49 | WG1033451 |
| Residual Range Organics (RRO) | 748 | | 82.5 | 250 | 1 | 10/23/2017 13:49 | WG1033451 |
| *(S) o-Terphenyl* | *112* | | | *52.0-156* | | *10/23/2017 13:49* | WG1033451 |

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

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 10/19/2017 23:19 | WG1033563 |
| Toluene | 0.859 | J | 0.412 | 1.00 | 1 | 10/19/2017 23:19 | WG1033563 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 10/19/2017 23:19 | WG1033563 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 10/19/2017 23:19 | WG1033563 |
| *(S) Toluene-d8* | *106* | | | *80.0-120* | | *10/19/2017 23:19* | WG1033563 |
| *(S) Dibromofluoromethane* | *99.1* | | | *76.0-123* | | *10/19/2017 23:19* | WG1033563 |
| *(S) a,a,a-Trifluorotoluene* | *106* | | | *80.0-120* | | *10/19/2017 23:19* | WG1033563 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *10/19/2017 23:19* | WG1033563 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 3950 | | 66.0 | 200 | 1 | 10/23/2017 14:05 | WG1033451 |
| Residual Range Organics (RRO) | 933 | | 82.5 | 250 | 1 | 10/23/2017 14:05 | WG1033451 |
| *(S) o-Terphenyl* | *120* | | | *52.0-156* | | *10/23/2017 14:05* | WG1033451 |

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

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 10/19/2017 23:38 | WG1033563 |
| Toluene | 0.449 | J | 0.412 | 1.00 | 1 | 10/19/2017 23:38 | WG1033563 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 10/19/2017 23:38 | WG1033563 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 10/19/2017 23:38 | WG1033563 |
| *(S) Toluene-d8* | *105* | | | *80.0-120* | | *10/19/2017 23:38* | WG1033563 |
| *(S) Dibromofluoromethane* | *97.2* | | | *76.0-123* | | *10/19/2017 23:38* | WG1033563 |
| *(S) a,a,a-Trifluorotoluene* | *104* | | | *80.0-120* | | *10/19/2017 23:38* | WG1033563 |
| *(S) 4-Bromofluorobenzene* | *104* | | | *80.0-120* | | *10/19/2017 23:38* | WG1033563 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 4740 | | 66.0 | 200 | 1 | 10/23/2017 14:21 | WG1033451 |
| Residual Range Organics (RRO) | 1140 | | 82.5 | 250 | 1 | 10/23/2017 14:21 | WG1033451 |
| *(S) o-Terphenyl* | *137* | | | *52.0-156* | | *10/23/2017 14:21* | WG1033451 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 10/19/2017 23:57 | WG1033563 |
| Toluene | U | | 0.412 | 1.00 | 1 | 10/19/2017 23:57 | WG1033563 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 10/19/2017 23:57 | WG1033563 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 10/19/2017 23:57 | WG1033563 |
| *(S) Toluene-d8* | *106* | | | *80.0-120* | | *10/19/2017 23:57* | WG1033563 |
| *(S) Dibromofluoromethane* | *100* | | | *76.0-123* | | *10/19/2017 23:57* | WG1033563 |
| *(S) a,a,a-Trifluorotoluene* | *107* | | | *80.0-120* | | *10/19/2017 23:57* | WG1033563 |
| *(S) 4-Bromofluorobenzene* | *104* | | | *80.0-120* | | *10/19/2017 23:57* | WG1033563 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 294 | | 66.0 | 200 | 1 | 10/23/2017 14:37 | WG1033451 |
| Residual Range Organics (RRO) | 278 | | 82.5 | 250 | 1 | 10/23/2017 14:37 | WG1033451 |
| *(S) o-Terphenyl* | *109* | | | *52.0-156* | | *10/23/2017 14:37* | WG1033451 |

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

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 10/20/2017 00:16 | WG1033563 |
| Toluene | U | | 0.412 | 1.00 | 1 | 10/20/2017 00:16 | WG1033563 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 10/20/2017 00:16 | WG1033563 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 10/20/2017 00:16 | WG1033563 |
| *(S) Toluene-d8* | *107* | | | *80.0-120* | | *10/20/2017 00:16* | WG1033563 |
| *(S) Dibromofluoromethane* | *94.8* | | | *76.0-123* | | *10/20/2017 00:16* | WG1033563 |
| *(S) a,a,a-Trifluorotoluene* | *105* | | | *80.0-120* | | *10/20/2017 00:16* | WG1033563 |
| *(S) 4-Bromofluorobenzene* | *106* | | | *80.0-120* | | *10/20/2017 00:16* | WG1033563 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 2300 | | 66.0 | 200 | 1 | 10/23/2017 14:54 | WG1033451 |
| Residual Range Organics (RRO) | 598 | | 82.5 | 250 | 1 | 10/23/2017 14:54 | WG1033451 |
| *(S) o-Terphenyl* | *115* | | | *52.0-156* | | *10/23/2017 14:54* | WG1033451 |

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

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 10/20/2017 00:35 | WG1033563 |
| Toluene | U | | 0.412 | 1.00 | 1 | 10/20/2017 00:35 | WG1033563 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 10/20/2017 00:35 | WG1033563 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 10/20/2017 00:35 | WG1033563 |
| *(S) Toluene-d8* | *106* | | | *80.0-120* | | *10/20/2017 00:35* | WG1033563 |
| *(S) Dibromofluoromethane* | *96.6* | | | *76.0-123* | | *10/20/2017 00:35* | WG1033563 |
| *(S) a,a,a-Trifluorotoluene* | *105* | | | *80.0-120* | | *10/20/2017 00:35* | WG1033563 |
| *(S) 4-Bromofluorobenzene* | *104* | | | *80.0-120* | | *10/20/2017 00:35* | WG1033563 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 2640 | | 66.0 | 200 | 1 | 10/23/2017 15:10 | WG1033451 |
| Residual Range Organics (RRO) | 670 | | 82.5 | 250 | 1 | 10/23/2017 15:10 | WG1033451 |
| *(S) o-Terphenyl* | *120* | | | *52.0-156* | | *10/23/2017 15:10* | WG1033451 |

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

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 10/20/2017 00:54 | WG1033563 |
| Toluene | U | | 0.412 | 1.00 | 1 | 10/20/2017 00:54 | WG1033563 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 10/20/2017 00:54 | WG1033563 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 10/20/2017 00:54 | WG1033563 |
| *(S) Toluene-d8* | *107* | | | *80.0-120* | | *10/20/2017 00:54* | WG1033563 |
| *(S) Dibromofluoromethane* | *99.3* | | | *76.0-123* | | *10/20/2017 00:54* | WG1033563 |
| *(S) a,a,a-Trifluorotoluene* | *106* | | | *80.0-120* | | *10/20/2017 00:54* | WG1033563 |
| *(S) 4-Bromofluorobenzene* | *104* | | | *80.0-120* | | *10/20/2017 00:54* | WG1033563 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 95.7 | J | 66.0 | 200 | 1 | 10/23/2017 15:26 | WG1033451 |
| Residual Range Organics (RRO) | 313 | | 82.5 | 250 | 1 | 10/23/2017 15:26 | WG1033451 |
| *(S) o-Terphenyl* | *85.8* | | | *52.0-156* | | *10/23/2017 15:26* | WG1033451 |

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

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 10/20/2017 01:14 | WG1033563 |
| Toluene | U | | 0.412 | 1.00 | 1 | 10/20/2017 01:14 | WG1033563 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 10/20/2017 01:14 | WG1033563 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 10/20/2017 01:14 | WG1033563 |
| *(S) Toluene-d8* | *107* | | | *80.0-120* | | *10/20/2017 01:14* | WG1033563 |
| *(S) Dibromofluoromethane* | *96.7* | | | *76.0-123* | | *10/20/2017 01:14* | WG1033563 |
| *(S) a,a,a-Trifluorotoluene* | *106* | | | *80.0-120* | | *10/20/2017 01:14* | WG1033563 |
| *(S) 4-Bromofluorobenzene* | *101* | | | *80.0-120* | | *10/20/2017 01:14* | WG1033563 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 80.1 | J | 66.0 | 200 | 1 | 10/23/2017 15:42 | WG1033451 |
| Residual Range Organics (RRO) | 226 | J | 82.5 | 250 | 1 | 10/23/2017 15:42 | WG1033451 |
| *(S) o-Terphenyl* | *101* | | | *52.0-156* | | *10/23/2017 15:42* | WG1033451 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Benzene | U | | 0.331 | 1.00 | 1 | 10/20/2017 01:33 | WG1033563 |
| Toluene | U | | 0.412 | 1.00 | 1 | 10/20/2017 01:33 | WG1033563 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 10/20/2017 01:33 | WG1033563 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 10/20/2017 01:33 | WG1033563 |
| *(S) Toluene-d8* | *108* | | | *80.0-120* | | *10/20/2017 01:33* | WG1033563 |
| *(S) Dibromofluoromethane* | *100* | | | *76.0-123* | | *10/20/2017 01:33* | WG1033563 |
| *(S) a,a,a-Trifluorotoluene* | *104* | | | *80.0-120* | | *10/20/2017 01:33* | WG1033563 |
| *(S) 4-Bromofluorobenzene* | *104* | | | *80.0-120* | | *10/20/2017 01:33* | WG1033563 |

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

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | U | | 66.0 | 200 | 1 | 10/23/2017 15:58 | WG1033451 |
| Residual Range Organics (RRO) | 145 | J | 82.5 | 250 | 1 | 10/23/2017 15:58 | WG1033451 |
| *(S) o-Terphenyl* | *109* | | | *52.0-156* | | *10/23/2017 15:58* | WG1033451 |

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

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 10/20/2017 01:52 | WG1033563 |
| Toluene | U | | 0.412 | 1.00 | 1 | 10/20/2017 01:52 | WG1033563 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 10/20/2017 01:52 | WG1033563 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 10/20/2017 01:52 | WG1033563 |
| *(S) Toluene-d8* | *106* | | | *80.0-120* | | *10/20/2017 01:52* | WG1033563 |
| *(S) Dibromofluoromethane* | *100* | | | *76.0-123* | | *10/20/2017 01:52* | WG1033563 |
| *(S) a,a,a-Trifluorotoluene* | *105* | | | *80.0-120* | | *10/20/2017 01:52* | WG1033563 |
| *(S) 4-Bromofluorobenzene* | *105* | | | *80.0-120* | | *10/20/2017 01:52* | WG1033563 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | U | | 66.0 | 200 | 1 | 10/23/2017 18:03 | WG1033451 |
| Residual Range Organics (RRO) | U | | 82.5 | 250 | 1 | 10/23/2017 18:03 | WG1033451 |
| *(S) o-Terphenyl* | *106* | | | *52.0-156* | | *10/23/2017 18:03* | WG1033451 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 10/20/2017 02:11 | WG1033563 |
| Toluene | U | | 0.412 | 1.00 | 1 | 10/20/2017 02:11 | WG1033563 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 10/20/2017 02:11 | WG1033563 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 10/20/2017 02:11 | WG1033563 |
| *(S) Toluene-d8* | *107* | | | *80.0-120* | | *10/20/2017 02:11* | WG1033563 |
| *(S) Dibromofluoromethane* | *98.6* | | | *76.0-123* | | *10/20/2017 02:11* | WG1033563 |
| *(S) a,a,a-Trifluorotoluene* | *105* | | | *80.0-120* | | *10/20/2017 02:11* | WG1033563 |
| *(S) 4-Bromofluorobenzene* | *103* | | | *80.0-120* | | *10/20/2017 02:11* | WG1033563 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | U | | 66.0 | 200 | 1 | 10/23/2017 18:19 | WG1033451 |
| Residual Range Organics (RRO) | U | | 82.5 | 250 | 1 | 10/23/2017 18:19 | WG1033451 |
| *(S) o-Terphenyl* | *106* | | | *52.0-156* | | *10/23/2017 18:19* | WG1033451 |

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

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 10/20/2017 02:30 | WG1033563 |
| Toluene | U | | 0.412 | 1.00 | 1 | 10/20/2017 02:30 | WG1033563 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 10/20/2017 02:30 | WG1033563 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 10/20/2017 02:30 | WG1033563 |
| *(S) Toluene-d8* | *108* | | | *80.0-120* | | *10/20/2017 02:30* | WG1033563 |
| *(S) Dibromofluoromethane* | *99.3* | | | *76.0-123* | | *10/20/2017 02:30* | WG1033563 |
| *(S) a,a,a-Trifluorotoluene* | *107* | | | *80.0-120* | | *10/20/2017 02:30* | WG1033563 |
| *(S) 4-Bromofluorobenzene* | *101* | | | *80.0-120* | | *10/20/2017 02:30* | WG1033563 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 7670 | | 330 | 1000 | 5 | 10/25/2017 14:00 | WG1033451 |
| Residual Range Organics (RRO) | 659 | | 82.5 | 250 | 1 | 10/23/2017 18:35 | WG1033451 |
| *(S) o-Terphenyl* | *117* | | | *52.0-156* | | *10/25/2017 14:00* | WG1033451 |
| *(S) o-Terphenyl* | *145* | | | *52.0-156* | | *10/23/2017 18:35* | WG1033451 |

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

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 10/20/2017 02:49 | WG1033563 |
| Toluene | 22.7 | | 0.412 | 1.00 | 1 | 10/20/2017 02:49 | WG1033563 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 10/20/2017 02:49 | WG1033563 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 10/20/2017 02:49 | WG1033563 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* | | *10/20/2017 02:49* | WG1033563 |
| *(S) Dibromofluoromethane* | *99.5* | | | *76.0-123* | | *10/20/2017 02:49* | WG1033563 |
| *(S) a,a,a-Trifluorotoluene* | *102* | | | *80.0-120* | | *10/20/2017 02:49* | WG1033563 |
| *(S) 4-Bromofluorobenzene* | *103* | | | *80.0-120* | | *10/20/2017 02:49* | WG1033563 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 211 | | 66.0 | 200 | 1 | 10/23/2017 18:51 | WG1033451 |
| Residual Range Organics (RRO) | 193 | J | 82.5 | 250 | 1 | 10/23/2017 18:51 | WG1033451 |
| *(S) o-Terphenyl* | *110* | | | *52.0-156* | | *10/23/2017 18:51* | WG1033451 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 10/20/2017 03:09 | WG1033563 |
| Toluene | U | | 0.412 | 1.00 | 1 | 10/20/2017 03:09 | WG1033563 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 10/20/2017 03:09 | WG1033563 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 10/20/2017 03:09 | WG1033563 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* | | *10/20/2017 03:09* | WG1033563 |
| *(S) Dibromofluoromethane* | *102* | | | *76.0-123* | | *10/20/2017 03:09* | WG1033563 |
| *(S) a,a,a-Trifluorotoluene* | *106* | | | *80.0-120* | | *10/20/2017 03:09* | WG1033563 |
| *(S) 4-Bromofluorobenzene* | *106* | | | *80.0-120* | | *10/20/2017 03:09* | WG1033563 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | U | | 66.0 | 200 | 1 | 10/23/2017 19:07 | WG1033451 |
| Residual Range Organics (RRO) | U | | 82.5 | 250 | 1 | 10/23/2017 19:07 | WG1033451 |
| *(S) o-Terphenyl* | *108* | | | *52.0-156* | | *10/23/2017 19:07* | WG1033451 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 10/20/2017 03:28 | WG1033563 |
| Toluene | U | | 0.412 | 1.00 | 1 | 10/20/2017 03:28 | WG1033563 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 10/20/2017 03:28 | WG1033563 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 10/20/2017 03:28 | WG1033563 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* | | *10/20/2017 03:28* | WG1033563 |
| *(S) Dibromofluoromethane* | *102* | | | *76.0-123* | | *10/20/2017 03:28* | WG1033563 |
| *(S) a,a,a-Trifluorotoluene* | *107* | | | *80.0-120* | | *10/20/2017 03:28* | WG1033563 |
| *(S) 4-Bromofluorobenzene* | *104* | | | *80.0-120* | | *10/20/2017 03:28* | WG1033563 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | U | | 66.0 | 200 | 1 | 10/23/2017 19:23 | WG1033451 |
| Residual Range Organics (RRO) | U | | 82.5 | 250 | 1 | 10/23/2017 19:23 | WG1033451 |
| *(S) o-Terphenyl* | *106* | | | *52.0-156* | | *10/23/2017 19:23* | WG1033451 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Benzene | U | | 0.331 | 1.00 | 1 | 10/20/2017 03:47 | WG1033563 |
| Toluene | U | | 0.412 | 1.00 | 1 | 10/20/2017 03:47 | WG1033563 |
| Ethylbenzene | 0.633 | J | 0.384 | 1.00 | 1 | 10/20/2017 03:47 | WG1033563 |
| Total Xylenes | 2.56 | J | 1.06 | 3.00 | 1 | 10/20/2017 03:47 | WG1033563 |
| *(S) Toluene-d8* | *107* | | | *80.0-120* | | *10/20/2017 03:47* | WG1033563 |
| *(S) Dibromofluoromethane* | *101* | | | *76.0-123* | | *10/20/2017 03:47* | WG1033563 |
| *(S) a,a,a-Trifluorotoluene* | *106* | | | *80.0-120* | | *10/20/2017 03:47* | WG1033563 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *10/20/2017 03:47* | WG1033563 |

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

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 6140 | | 330 | 1000 | 5 | 10/25/2017 14:17 | WG1033451 |
| Residual Range Organics (RRO) | 594 | | 82.5 | 250 | 1 | 10/23/2017 19:39 | WG1033451 |
| *(S) o-Terphenyl* | *130* | | | *52.0-156* | | *10/23/2017 19:39* | WG1033451 |
| *(S) o-Terphenyl* | *108* | | | *52.0-156* | | *10/25/2017 14:17* | WG1033451 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | 1.40 | | 0.331 | 1.00 | 1 | 10/20/2017 04:06 | WG1033563 |
| Toluene | 0.436 | J | 0.412 | 1.00 | 1 | 10/20/2017 04:06 | WG1033563 |
| Ethylbenzene | 9.36 | | 0.384 | 1.00 | 1 | 10/20/2017 04:06 | WG1033563 |
| Total Xylenes | 75.7 | | 1.06 | 3.00 | 1 | 10/20/2017 04:06 | WG1033563 |
| *(S) Toluene-d8* | *106* | | | *80.0-120* | | *10/20/2017 04:06* | WG1033563 |
| *(S) Dibromofluoromethane* | *96.1* | | | *76.0-123* | | *10/20/2017 04:06* | WG1033563 |
| *(S) a,a,a-Trifluorotoluene* | *107* | | | *80.0-120* | | *10/20/2017 04:06* | WG1033563 |
| *(S) 4-Bromofluorobenzene* | *99.7* | | | *80.0-120* | | *10/20/2017 04:06* | WG1033563 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 7770 | | 330 | 1000 | 5 | 10/25/2017 14:33 | WG1033451 |
| Residual Range Organics (RRO) | 441 | | 82.5 | 250 | 1 | 10/23/2017 19:55 | WG1033451 |
| *(S) o-Terphenyl* | *125* | | | *52.0-156* | | *10/25/2017 14:33* | WG1033451 |
| *(S) o-Terphenyl* | *126* | | | *52.0-156* | | *10/23/2017 19:55* | WG1033451 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 10/20/2017 04:25 | WG1033563 |
| Toluene | U | | 0.412 | 1.00 | 1 | 10/20/2017 04:25 | WG1033563 |
| Ethylbenzene | 22.3 | | 0.384 | 1.00 | 1 | 10/20/2017 04:25 | WG1033563 |
| Total Xylenes | 8.49 | | 1.06 | 3.00 | 1 | 10/20/2017 04:25 | WG1033563 |
| *(S) Toluene-d8* | *108* | | | *80.0-120* | | *10/20/2017 04:25* | WG1033563 |
| *(S) Dibromofluoromethane* | *97.7* | | | *76.0-123* | | *10/20/2017 04:25* | WG1033563 |
| *(S) a,a,a-Trifluorotoluene* | *104* | | | *80.0-120* | | *10/20/2017 04:25* | WG1033563 |
| *(S) 4-Bromofluorobenzene* | *99.2* | | | *80.0-120* | | *10/20/2017 04:25* | WG1033563 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 13000 | | 330 | 1000 | 5 | 10/25/2017 14:49 | WG1033451 |
| Residual Range Organics (RRO) | 706 | | 82.5 | 250 | 1 | 10/23/2017 20:10 | WG1033451 |
| *(S) o-Terphenyl* | *131* | | | *52.0-156* | | *10/25/2017 14:49* | WG1033451 |
| *(S) o-Terphenyl* | *128* | | | *52.0-156* | | *10/23/2017 20:10* | WG1033451 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | 1.60 | | 0.331 | 1.00 | 1 | 10/20/2017 04:44 | WG1033563 |
| Toluene | 7.46 | | 0.412 | 1.00 | 1 | 10/20/2017 04:44 | WG1033563 |
| Ethylbenzene | 28.8 | | 0.384 | 1.00 | 1 | 10/20/2017 04:44 | WG1033563 |
| Total Xylenes | 248 | | 1.06 | 3.00 | 1 | 10/20/2017 04:44 | WG1033563 |
| *(S) Toluene-d8* | *106* | | | *80.0-120* | | *10/20/2017 04:44* | WG1033563 |
| *(S) Dibromofluoromethane* | *98.9* | | | *76.0-123* | | *10/20/2017 04:44* | WG1033563 |
| *(S) a,a,a-Trifluorotoluene* | *104* | | | *80.0-120* | | *10/20/2017 04:44* | WG1033563 |
| *(S) 4-Bromofluorobenzene* | *97.8* | | | *80.0-120* | | *10/20/2017 04:44* | WG1033563 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 14400 | | 330 | 1000 | 5 | 10/25/2017 15:05 | WG1033451 |
| Residual Range Organics (RRO) | 1240 | | 82.5 | 250 | 1 | 10/23/2017 20:26 | WG1033451 |
| *(S) o-Terphenyl* | *119* | | | *52.0-156* | | *10/25/2017 15:05* | WG1033451 |
| *(S) o-Terphenyl* | *249* | J1 | | *52.0-156* | | *10/23/2017 20:26* | WG1033451 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Benzene | 0.516 | J | 0.331 | 1.00 | 1 | 10/20/2017 01:15 | WG1033565 |
| Toluene | 2.39 | | 0.412 | 1.00 | 1 | 10/20/2017 01:15 | WG1033565 |
| Ethylbenzene | 9.76 | | 0.384 | 1.00 | 1 | 10/20/2017 01:15 | WG1033565 |
| Total Xylenes | 56.8 | | 1.06 | 3.00 | 1 | 10/20/2017 01:15 | WG1033565 |
| *(S) Toluene-d8* | *106* | | | *80.0-120* | | *10/20/2017 01:15* | WG1033565 |
| *(S) Dibromofluoromethane* | *96.5* | | | *76.0-123* | | *10/20/2017 01:15* | WG1033565 |
| *(S) a,a,a-Trifluorotoluene* | *105* | | | *80.0-120* | | *10/20/2017 01:15* | WG1033565 |
| *(S) 4-Bromofluorobenzene* | *105* | | | *80.0-120* | | *10/20/2017 01:15* | WG1033565 |

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

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 5130 | | 330 | 1000 | 5 | 10/25/2017 13:44 | WG1034369 |
| Residual Range Organics (RRO) | 496 | | 82.5 | 250 | 1 | 10/23/2017 23:41 | WG1034369 |
| *(S) o-Terphenyl* | *1330* | J1 | | *52.0-156* | | *10/23/2017 23:41* | WG1034369 |
| *(S) o-Terphenyl* | *115* | | | *52.0-156* | | *10/25/2017 13:44* | WG1034369 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 10/20/2017 01:36 | WG1033565 |
| Toluene | U | | 0.412 | 1.00 | 1 | 10/20/2017 01:36 | WG1033565 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 10/20/2017 01:36 | WG1033565 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 10/20/2017 01:36 | WG1033565 |
| *(S) Toluene-d8* | *108* | | | *80.0-120* | | *10/20/2017 01:36* | WG1033565 |
| *(S) Dibromofluoromethane* | *95.0* | | | *76.0-123* | | *10/20/2017 01:36* | WG1033565 |
| *(S) a,a,a-Trifluorotoluene* | *105* | | | *80.0-120* | | *10/20/2017 01:36* | WG1033565 |
| *(S) 4-Bromofluorobenzene* | *103* | | | *80.0-120* | | *10/20/2017 01:36* | WG1033565 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 1800 | | 66.0 | 200 | 1 | 10/23/2017 23:57 | WG1034369 |
| Residual Range Organics (RRO) | 410 | | 82.5 | 250 | 1 | 10/23/2017 23:57 | WG1034369 |
| *(S) o-Terphenyl* | *114* | | | *52.0-156* | | *10/23/2017 23:57* | WG1034369 |

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

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 10/20/2017 01:56 | WG1033565 |
| Toluene | 0.497 | J | 0.412 | 1.00 | 1 | 10/20/2017 01:56 | WG1033565 |
| Ethylbenzene | 13.6 | | 0.384 | 1.00 | 1 | 10/20/2017 01:56 | WG1033565 |
| Total Xylenes | 37.3 | | 1.06 | 3.00 | 1 | 10/20/2017 01:56 | WG1033565 |
| *(S) Toluene-d8* | *106* | | | *80.0-120* | | *10/20/2017 01:56* | WG1033565 |
| *(S) Dibromofluoromethane* | *98.6* | | | *76.0-123* | | *10/20/2017 01:56* | WG1033565 |
| *(S) a,a,a-Trifluorotoluene* | *105* | | | *80.0-120* | | *10/20/2017 01:56* | WG1033565 |
| *(S) 4-Bromofluorobenzene* | *105* | | | *80.0-120* | | *10/20/2017 01:56* | WG1033565 |

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

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Diesel Range Organics (DRO) | 4740 | | 66.0 | 200 | 1 | 10/24/2017 00:14 | WG1034369 |
| Residual Range Organics (RRO) | 630 | | 82.5 | 250 | 1 | 10/24/2017 00:14 | WG1034369 |
| *(S) o-Terphenyl* | *113* | | | *52.0-156* | | *10/24/2017 00:14* | WG1034369 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Benzene | U | | 0.331 | 1.00 | 1 | 10/20/2017 00:55 | WG1033565 |
| Toluene | U | | 0.412 | 1.00 | 1 | 10/20/2017 00:55 | WG1033565 |
| Ethylbenzene | U | | 0.384 | 1.00 | 1 | 10/20/2017 00:55 | WG1033565 |
| Total Xylenes | U | | 1.06 | 3.00 | 1 | 10/20/2017 00:55 | WG1033565 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *10/20/2017 00:55* | WG1033565 |
| *(S) Dibromofluoromethane* | *95.5* | | | *76.0-123* | | *10/20/2017 00:55* | WG1033565 |
| *(S) a,a,a-Trifluorotoluene* | *104* | | | *80.0-120* | | *10/20/2017 00:55* | WG1033565 |
| *(S) 4-Bromofluorobenzene* | *112* | | | *80.0-120* | | *10/20/2017 00:55* | WG1033565 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Benzene | U | | 8.28 | 25.0 | 25 | 10/24/2017 17:27 | WG1033565 |
| Toluene | U | | 10.3 | 25.0 | 25 | 10/24/2017 17:27 | WG1033565 |
| Ethylbenzene | 29.0 | | 9.60 | 25.0 | 25 | 10/24/2017 17:27 | WG1033565 |
| Total Xylenes | 61.9 | J | 26.5 | 75.0 | 25 | 10/24/2017 17:27 | WG1033565 |
| *(S) Toluene-d8* | *105* | | | *80.0-120* | | *10/24/2017 17:27* | WG1033565 |
| *(S) Dibromofluoromethane* | *99.6* | | | *76.0-123* | | *10/24/2017 17:27* | WG1033565 |
| *(S) a,a,a-Trifluorotoluene* | *108* | | | *80.0-120* | | *10/24/2017 17:27* | WG1033565 |
| *(S) 4-Bromofluorobenzene* | *107* | | | *80.0-120* | | *10/24/2017 17:27* | WG1033565 |

**Sample Narrative:**

L944908-25 WG1033565: Lowest possible dilutio due to sample matrix.

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

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 96300 | | 3300 | 10000 | 50 | 10/24/2017 04:35 | WG1034369 |
| Residual Range Organics (RRO) | 5980 | J | 4120 | 12500 | 50 | 10/24/2017 04:35 | WG1034369 |
| *(S) o-Terphenyl* | *0.000* | J7 | | *52.0-156* | | *10/24/2017 04:35* | WG1034369 |

**Sample Narrative:**

L944908-25 WG1034369: Dilution due to matrix

## Method Blank (MB)

(MB) R3259361-2 10/19/17 21:21

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Benzene | U | | 0.331 | 1.00 |
| Ethylbenzene | U | | 0.384 | 1.00 |
| Toluene | U | | 0.412 | 1.00 |
| Xylenes, Total | U | | 1.06 | 3.00 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* |
| *(S) Dibromofluoromethane* | *100* | | | *76.0-123* |
| *(S) a,a,a-Trifluorotoluene* | *104* | | | *80.0-120* |
| *(S) 4-Bromofluorobenzene* | *105* | | | *80.0-120* |

## Laboratory Control Sample (LCS)

(LCS) R3259361-1 10/19/17 20:43

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Benzene | 25.0 | 28.6 | 114 | 69.0-123 | |
| Ethylbenzene | 25.0 | 27.6 | 111 | 77.0-120 | |
| Toluene | 25.0 | 27.1 | 108 | 77.0-120 | |
| Xylenes, Total | 75.0 | 83.7 | 112 | 77.0-120 | |
| *(S) Toluene-d8* | | | *104* | *80.0-120* | |
| *(S) Dibromofluoromethane* | | | *100* | *76.0-123* | |
| *(S) a,a,a-Trifluorotoluene* | | | *104* | *80.0-120* | |
| *(S) 4-Bromofluorobenzene* | | | *99.5* | *80.0-120* | |

## Method Blank (MB)

(MB) R3260078-3 10/20/17 00:35

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Benzene | U | | 0.331 | 1.00 |
| Ethylbenzene | U | | 0.384 | 1.00 |
| Toluene | U | | 0.412 | 1.00 |
| Xylenes, Total | U | | 1.06 | 3.00 |
| *(S) a,a,a-Trifluorotoluene* | *104* | | | *80.0-120* |
| *(S) Toluene-d8* | *106* | | | *80.0-120* |
| *(S) Dibromofluoromethane* | *97.7* | | | *76.0-123* |
| *(S) 4-Bromofluorobenzene* | *109* | | | *80.0-120* |

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

(LCS) R3260078-1 10/19/17 23:15 • (LCSD) R3260078-2 10/19/17 23:35

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Benzene | 25.0 | 24.0 | 23.0 | 96.1 | 92.1 | 69.0-123 | | | 4.21 | 20 |
| Ethylbenzene | 25.0 | 21.6 | 21.8 | 86.4 | 87.3 | 77.0-120 | | | 1.08 | 20 |
| Toluene | 25.0 | 25.6 | 25.3 | 103 | 101 | 77.0-120 | | | 1.24 | 20 |
| Xylenes, Total | 75.0 | 61.3 | 61.2 | 81.7 | 81.6 | 77.0-120 | | | 0.160 | 20 |
| *(S) a,a,a-Trifluorotoluene* | | | | *105* | *106* | *80.0-120* | | | | |
| *(S) Toluene-d8* | | | | *104* | *106* | *80.0-120* | | | | |
| *(S) Dibromofluoromethane* | | | | *97.2* | *98.9* | *76.0-123* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | *107* | *108* | *80.0-120* | | | | |

## Method Blank (MB)

(MB) R3260164-1 10/23/17 12:28

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Diesel Range Organics (DRO) | U | | 66.7 | 200 |
| Residual Range Organics (RRO) | U | | 83.3 | 250 |
| *(S) o-Terphenyl* | *97.8* | | | *52.0-156* |

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

(LCS) R3260164-2 10/23/17 12:44 • (LCSD) R3260164-3 10/23/17 13:00

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 750 | 763 | 803 | 102 | 107 | 50.0-150 | | | 5.11 | 20 |
| Residual Range Organics (RRO) | 750 | 793 | 839 | 106 | 112 | 50.0-150 | | | 5.66 | 20 |
| *(S) o-Terphenyl* | | | | *112* | *113* | *52.0-156* | | | | |

## Method Blank (MB)

(MB) R3260165-1 10/23/17 22:52

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Diesel Range Organics (DRO) | U | | 66.7 | 200 |
| Residual Range Organics (RRO) | U | | 83.3 | 250 |
| *(S) o-Terphenyl* | *105* | | | *52.0-156* |

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

(LCS) R3260165-2 10/23/17 23:08 • (LCSD) R3260165-3 10/23/17 23:24

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Diesel Range Organics (DRO) | 750 | 775 | 804 | 103 | 107 | 50.0-150 | | | 3.68 | 20 |
| Residual Range Organics (RRO) | 750 | 849 | 879 | 113 | 117 | 50.0-150 | | | 3.41 | 20 |
| *(S) o-Terphenyl* | | | | *112* | *114* | *52.0-156* | | | | |

## Guide to Reading and Understanding Your Laboratory Report

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

## Abbreviations and Definitions

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

| Qualifier | Description |
|---|---|
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J1 | Surrogate recovery limits have been exceeded; values are outside upper control limits. |
| J7 | Surrogate recovery cannot be used for control limit evaluation due to dilution. |

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nevada | TN-03-2002-34 |
| Alaska | UST-080 | New Hampshire | 2975 |
| Arizona | AZ0612 | New Jersey–NELAP | TN002 |
| Arkansas | 88-0469 | New Mexico | TN00003 |
| California | 01157CA | New York | 11742 |
| Colorado | TN00003 | North Carolina | Env375 |
| Conneticut | PH-0197 | North Carolina [1] | DW21704 |
| Florida | E87487 | North Carolina [2] | 41 |
| Georgia | NELAP | North Dakota | R-140 |
| Georgia [1] | 923 | Ohio–VAP | CL0069 |
| Idaho | TN00003 | Oklahoma | 9915 |
| Illinois | 200008 | Oregon | TN200002 |
| Indiana | C-TN-01 | Pennsylvania | 68-02979 |
| Iowa | 364 | Rhode Island | 221 |
| Kansas | E-10277 | South Carolina | 84004 |
| Kentucky [1] | 90010 | South Dakota | n/a |
| Kentucky [2] | 16 | Tennessee [1 4] | 2006 |
| Louisiana | AI30792 | Texas | T 104704245-07-TX |
| Maine | TN0002 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | 6157585858 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 109 |
| Minnesota | 047-999-395 | Washington | C1915 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 9980939910 |
| Montana | CERT0086 | Wyoming | A2LA |
| Nebraska | NE-OS-15-05 | | |

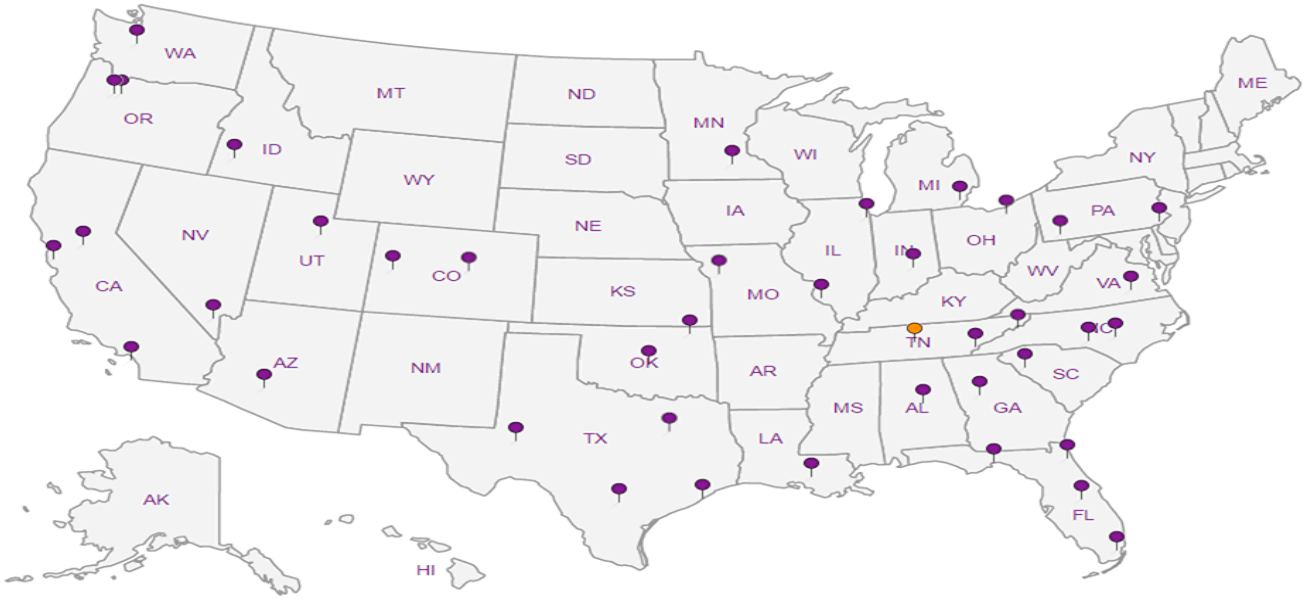
## Third Party & Federal Accreditations

| | | | |
|---|---|---|---|
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | S-67674 |
| EPA–Crypto | TN00003 | | |

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

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



## Companies - Portland, OR

Two Union Square
Suite 4200
Seattle, WA 98101

Billing Information:
Accounts Payable- Cindi Joy Staller
3015 SW First Avenue
Portland, OR 97201-4707

Report to: Kristina Sumner

Email To: kristina.sumner@apexcos.com

Project Description: ATT Bothell

City/State Collected: Bothell, WA

Phone: 503-924-4704
Fax: 503-943-6357

Client Project # 2337

Lab Project # ASHCREPOR-SUMNER

Collected by (print): K. Sumner

Site/Facility ID #

P.O. #

Collected by (signature): K Sumner

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

Chain of Custody Page ___ of ___

ESC
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 944908

H188

Acctnum: ASHCREPOR
Template: T128910
Prelogin: P622533
TSR: 110 - Brian Ford
PB:
Shipped Via:

Analysis / Container / Preservative

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | NWTPHDXLVINOSGT 40mlAmb-HCl-BT | V8260BTEXC 40mlAmb-HCl | trip blk V8260BTEXC 40mlAmb-HCl-Blk | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EW-1 | | GW | | 10/17/17 | 1008 | 5 | X | X | X | | -01 |
| EW-2 | | GW | | 10/17/17 | 1122 | 5 | X | X | | | -02 |
| EW-4 | | GW | | 10/17/17 | 1154 | 5 | X | X | | | -03 |
| EW-5 | | GW | | 10/17/17 | 1226 | 5 | X | X | | | -04 |
| EW-7 | | GW | | 10/17/17 | 1334 | 5 | X | X | | | -05 |
| EW-8 | | GW | | 10/17/17 | 1415 | 5 | X | X | | | -06 |
| EW-9 | | GW | | 10/17/17 | 1527 | 5 | X | X | | | -07 |
| MW-1 | | GW | | 10/19/17 | 0950 | 5 | X | X | | | -08 |
| MW-2 | | GW | | 10/17/17 | 1024 | 5 | X | X | | | -09 |
| MW-3 | | GW | | 10/17/17 | 1100 | 5 | X | X | | | -10 |

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

Remarks:

pH ___ Temp ___

Flow ___ Other ___

Samples returned via:
__ UPS X FedEx __ Courier ___

Tracking # 7466 1466 0392

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| K Sumner | 10/18/17 | 1703 | FedEx |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) Jennifer Royal |

Trip Blank Received: Yes / No
1 HCL / MeoH TBR

Temp: 2.9°C Bottles Received: 116

Date: 10.19.17 Time: 8:45

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

# Companies - Portland, OR

Two Union Square
Suite 4200
Seattle, WA 98101

Billing Information:
Accounts Payable- Cindi Joy Staller
3015 SW First Avenue
Portland, OR 97201-4707

Pres Chk

Report to: Kristina Sumner

Email To: kristina.sumner@apexcos.com

Project Description: ATT Bothell

City/State Collected: Bothell, WA

Phone: 503-924-4704
Fax: 503-943-6357

Client Project # 0337

Lab Project # ASHCREPOR-SUMNER

Collected by (print): Megan Masterson

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | NWTPHDXLVINOSGT 40mlAmb-HCl-BT | V8260BTEXC 40mlAmb-HCl | trip blk V8260BTEXC 40mlAmb-HCl-Blk |
|---|---|---|---|---|---|---|---|---|---|
| MW-4 | | GW | | 10/17/17 | 1141 | 5 | X | X | |
| MW-7 | | GW | | 10/17/17 | 1305 | 5 | X | X | |
| MW-8 | | GW | | 10/17/17 | 1345 | 5 | X | X | |
| MW-5 | | GW | | 10/17/17 | 1424 | 5 | X | X | |
| MW-6 | | GW | | 10/17/17 | 1518 | 5 | X | X | |
| MW-2Dup | | GW | | 10/17/17 | 1024 | 5 | X | X | |
| OW-3 | | GW | | 10/18/17 | 1124 | 5 | X | X | |
| OW-2 | | GW | | 10/18/17 | 1340 | 3 | X | X | |
| B-20 | | GW | | 10/18/17 | 1257 | 5 | X | X | |
| B-19 | | GW | | 10/18/17 | 1210 | 3 | X | X | |

Not enough GW for 3 40ml Ambers for BTEX-TB

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

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier __ _____

Tracking # 746614660397

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| | 10/18/17 | 1703 | FedEx |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) Jennifer Royal |

Trip Blank Received: Yes / No HCl / MeoH TBR
1

Temp: 2.9 °C Bottles Received: 116

Date: 10.19.17 Time: 8:45

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Chain of Custody Page ___ of ___

ESC LABORATORIES

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 944908

Table #

Acctnum: ASHCREPOR

Template: T128910

Prelogin: P622533

TSR: 110 - Brian Ford

PB:

Shipped Via:

| Remarks | Sample # (lab only) |
|---|---|
| | -11 |
| | -12 |
| | -13 |
| | -14 |
| | -15 |
| | -16 |
| | -17 |
| | -18 |
| | -19 |

**APEX Companies - Portland, OR**

Two Union Square
Suite 4200
Seattle, WA 98101

Billing Information:
Accounts Payable- Cindi Joy Staller
3015 SW First Avenue
Portland, OR 97201-4707

Pres Chk

Report to: Kristina Sumner

Email To: kristina.sumner@apexcos.com

Project Description: ATT Bothell

City/State Collected: Bothell, WA

Phone: 503-924-4704
Fax: 503-943-6357

Client Project # 2337

Lab Project # ASHCREPOR-SUMNER

Collected by (print): K. Sumner

Site/Facility ID #

P.O. #

Collected by (signature): K. Sumner

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | NWTPHDXLVINOSGT 40mlAmb-HCl-BT | V8260BTEXC 40mlAmb-HCl | trip blk V8260BTEXC 40mlAmb-HCl-Blk | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B21 | | GW | | 10/18/17 | 1327 | 5 | X | X | | | -20 |
| B25 | | GW | | 10/18/17 | 1327 | 5 | X | X | | | -21 |
| B28 | | GW | | 10/18/17 | 1207 | 5 | X | X | | | -22 |
| B26 | | GW | | 10/18/17 | 1301 | 5 | X | X | | | -23 |
| | | GW | | | | | | | | | -24-Trip Blank |
| | | GW | | | | | | | | | |
| | | GW | | | | | | | | | |
| | | GW | | | | | | | | | |
| | | GW | | | | | | | | | |
| | | | | | | | | | | | |

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
a subsidiary of ...

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 944908

Table #

Acctnum: ASHCREPOR

Template: T128910

Prelogin: P622533

TSR: 110 - Brian Ford

PB:

Shipped Via:

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

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| K. Sumner | 10/18/17 | 1703 | FedEx |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) Jennifer Royal |

Trip Blank Received: Yes / No HCL / MeoH TBR

Temp: 2.9°C Bottles Received: 116

Date: 10.19.17 Time: 8:45

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

**Matthew Lockhart**

# ESC Lab Sciences
# Non-Conformance Form

| Login #:944908 | Client:ASHCREPOR | Date:10/19/17 | Evaluated by: Matthew Lockhart |
|---|---|---|---|

**Non-Conformance (check applicable items)**

| | Sample Integrity | | Chain of Custody Clarification | | |
|---|---|---|---|---|---|
| | Parameter(s) past holding time | | Login Clarification Needed | | **If Broken Container:** |
| | Improper temperature | | Chain of custody is incomplete | X | Insufficient packing material around container |
| | Improper container type | | Please specify Metals requested. | | Insufficient packing material inside cooler |
| | Improper preservation | | Please specify TCLP requested. | | Improper handling by carrier (FedEx / UPS / Cou |
| | Insufficient sample volume. | | Received additional samples not listed on coc. | | Sample was frozen |
| | Sample is biphasic. | X | Sample ids on containers do not match ids on coc | | Container lid not intact |
| | Vials received with headspace. | | Trip Blank not received. | | **If no Chain of Custody:** |
| X | Broken container | | Client did not "X" analysis. | | Received by: |
| | Broken container: | | Chain of Custody is missing | | Date/Time: |
| | Sufficient sample remains | | | | Temp./Cont. Rec./pH: |
| | | | | | Carrier: |
| | | | | | Tracking# |

**Login Comments:**

1) **Received broken containers for SampleIDs: MW-7 (1) 40mlamb-HCL, EW-2 (1) 40mlAMB-HCL, and B-20 @1340 (1) 40mlAmb-HCL.**
2) **Received 2 sets of sampleIDs labeled as B-20. One SampleID was labeled as B-20 @ 1257 and one as B-20 @1340. Did not received SampleID Ow-2 @ 1340.**

| Client informed by: | | Call | | Email | x | Voice Mail | | Date:10/19/17 | Time:1400 |
|---|---|---|---|---|---|---|---|---|---|
| TSR Initials:bjf | Client Contact: Kristina Sumner | | | | | | | | |

**Login Instructions:**

1) Proceed with remaining sample volume.
2) Log containers for B-20@1340 as OW-2@1340.

# ANALYTICAL REPORT

October 31, 2017

## APEX Companies - Portland, OR

| | |
|---|---|
| Sample Delivery Group: | L946460 |
| Samples Received: | 10/26/2017 |
| Project Number: | 2337 |
| Description: | AT&T Bothell |

Report To: Kristina Sumner
Two Union Square
Suite 4200
Seattle, WA 98101

Entire Report Reviewed By:

Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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Qc: Quality Control Summary 6

Volatile Organic Compounds (MS) by Method TO-15 6

Gl: Glossary of Terms 8

Al: Accreditations & Locations 9

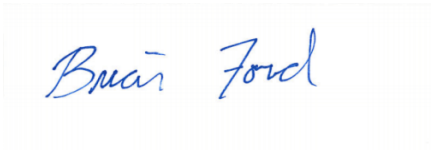
Sc: Sample Chain of Custody 10

## AMB-1 L946460-01 Air

| | | | Collected by | Collected date/time | Received date/time |
|---|---|---|---|---|---|
| | | | K. Sumner | 10/16/17 07:55 | 10/26/17 08:45 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (MS) by Method TO-15 | WG1037103 | 1 | 10/31/17 04:02 | 10/31/17 04:02 | MBF |

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Brian Ford
Technical Service Representative

## Volatile Organic Compounds (MS) by Method TO-15

| Analyte | CAS # | Mol. Wt. | RDL1 ppbv | RDL2 ug/m3 | Result ppbv | Result ug/m3 | Qualifier | Dilution | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | 78.10 | 0.0200 | 0.0639 | 0.249 | 0.795 | | 1 | WG1037103 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.0200 | 0.126 | 0.0781 | 0.492 | | 1 | WG1037103 |
| Chloroethane | 75-00-3 | 64.50 | 0.0400 | 0.106 | ND | ND | | 1 | WG1037103 |
| Chloroform | 67-66-3 | 119 | 0.0200 | 0.0973 | 0.146 | 0.710 | | 1 | WG1037103 |
| Chloromethane | 74-87-3 | 50.50 | 0.0300 | 0.0620 | 0.521 | 1.08 | | 1 | WG1037103 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.0200 | 0.154 | ND | ND | | 1 | WG1037103 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.0200 | 0.120 | ND | ND | | 1 | WG1037103 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.0200 | 0.0802 | ND | ND | | 1 | WG1037103 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.0200 | 0.0810 | ND | ND | | 1 | WG1037103 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.0200 | 0.0793 | ND | ND | | 1 | WG1037103 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.0200 | 0.0793 | ND | ND | | 1 | WG1037103 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.0200 | 0.0793 | ND | ND | | 1 | WG1037103 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.0300 | 0.139 | ND | ND | | 1 | WG1037103 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.0200 | 0.0908 | ND | ND | | 1 | WG1037103 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.0300 | 0.136 | ND | ND | | 1 | WG1037103 |
| Ethylbenzene | 100-41-4 | 106 | 0.0300 | 0.130 | 0.114 | 0.493 | | 1 | WG1037103 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.0200 | 0.137 | ND | ND | | 1 | WG1037103 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.0200 | 0.136 | 1.25 | 8.49 | | 1 | WG1037103 |
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.0200 | 0.109 | ND | ND | | 1 | WG1037103 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.0300 | 0.163 | ND | ND | | 1 | WG1037103 |
| Trichloroethylene | 79-01-6 | 131 | 0.0200 | 0.107 | ND | ND | | 1 | WG1037103 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.0200 | 0.0511 | ND | ND | | 1 | WG1037103 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.0200 | 0.0704 | ND | ND | | 1 | WG1037103 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *92.6* | | | | WG1037103 |

## Method Blank (MB)

(MB) R3261689-3 10/30/17 23:31

| Analyte | MB Result ppbv | MB Qualifier | MB MDL ppbv | MB RDL ppbv |
|---|---|---|---|---|
| Benzene | U | | 0.00541 | 0.0200 |
| Carbon tetrachloride | U | | 0.00575 | 0.0200 |
| Chloroethane | U | | 0.0159 | 0.0400 |
| Chloroform | U | | 0.00464 | 0.0200 |
| Chloromethane | U | | 0.00972 | 0.0300 |
| 1,2-Dibromoethane | U | | 0.0185 | 0.0200 |
| 1,4-Dichlorobenzene | U | | 0.00691 | 0.0200 |
| 1,1-Dichloroethane | U | | 0.00505 | 0.0200 |
| 1,2-Dichloroethane | U | | 0.000471 | 0.0200 |
| 1,1-Dichloroethene | U | | 0.00521 | 0.0200 |
| cis-1,2-Dichloroethene | U | | 0.00770 | 0.0200 |
| trans-1,2-Dichloroethene | U | | 0.00499 | 0.0200 |
| 1,2-Dichloropropane | U | | 0.00840 | 0.0300 |
| cis-1,3-Dichloropropene | U | | 0.00556 | 0.0200 |
| trans-1,3-Dichloropropene | U | | 0.00853 | 0.0300 |
| Ethylbenzene | U | | 0.00904 | 0.0300 |
| 1,1,2,2-Tetrachloroethane | U | | 0.00481 | 0.0200 |
| Tetrachloroethylene | U | | 0.00457 | 0.0200 |
| 1,1,1-Trichloroethane | U | | 0.00552 | 0.0200 |
| 1,1,2-Trichloroethane | U | | 0.0287 | 0.0300 |
| Trichloroethylene | U | | 0.00736 | 0.0200 |
| Vinyl chloride | U | | 0.00765 | 0.0200 |
| Vinyl acetate | U | | 0.00430 | 0.0200 |
| *(S) 1,4-Bromofluorobenzene* | *91.8* | | | *60.0-140* |

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

(LCS) R3261689-1 10/30/17 22:06 • (LCSD) R3261689-2 10/30/17 22:48

| Analyte | Spike Amount ppbv | LCS Result ppbv | LCSD Result ppbv | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.500 | 0.511 | 0.505 | 102 | 101 | 70.0-130 | | | 1.22 | 25 |
| Carbon tetrachloride | 0.500 | 0.534 | 0.550 | 107 | 110 | 70.0-130 | | | 2.96 | 25 |
| Chloroethane | 0.500 | 0.490 | 0.508 | 98.1 | 102 | 70.0-130 | | | 3.63 | 25 |
| Chloroform | 0.500 | 0.489 | 0.501 | 97.8 | 100 | 70.0-130 | | | 2.37 | 25 |
| Chloromethane | 0.500 | 0.507 | 0.523 | 101 | 105 | 70.0-130 | | | 3.12 | 25 |
| 1,2-Dibromoethane | 0.500 | 0.511 | 0.521 | 102 | 104 | 70.0-130 | | | 1.84 | 25 |
| 1,4-Dichlorobenzene | 0.500 | 0.532 | 0.541 | 106 | 108 | 70.0-130 | | | 1.86 | 25 |
| 1,1-Dichloroethane | 0.500 | 0.497 | 0.510 | 99.4 | 102 | 70.0-130 | | | 2.51 | 25 |
| 1,2-Dichloroethane | 0.500 | 0.471 | 0.481 | 94.2 | 96.2 | 70.0-130 | | | 2.05 | 25 |

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

(LCS) R3261689-1 10/30/17 22:06 • (LCSD) R3261689-2 10/30/17 22:48

| Analyte | Spike Amount ppbv | LCS Result ppbv | LCSD Result ppbv | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.500 | 0.497 | 0.510 | 99.4 | 102 | 70.0-130 | | | 2.56 | 25 |
| cis-1,2-Dichloroethene | 0.500 | 0.494 | 0.509 | 98.9 | 102 | 70.0-130 | | | 3.01 | 25 |
| trans-1,2-Dichloroethene | 0.500 | 0.493 | 0.505 | 98.6 | 101 | 70.0-130 | | | 2.31 | 25 |
| 1,2-Dichloropropane | 0.500 | 0.496 | 0.504 | 99.2 | 101 | 70.0-130 | | | 1.63 | 25 |
| cis-1,3-Dichloropropene | 0.500 | 0.503 | 0.514 | 101 | 103 | 70.0-130 | | | 2.08 | 25 |
| trans-1,3-Dichloropropene | 0.500 | 0.509 | 0.516 | 102 | 103 | 70.0-130 | | | 1.34 | 25 |
| Ethylbenzene | 0.500 | 0.550 | 0.560 | 110 | 112 | 70.0-130 | | | 1.68 | 25 |
| 1,1,2,2-Tetrachloroethane | 0.500 | 0.518 | 0.530 | 104 | 106 | 70.0-130 | | | 2.34 | 25 |
| Tetrachloroethylene | 0.500 | 0.512 | 0.521 | 102 | 104 | 70.0-130 | | | 1.80 | 25 |
| 1,1,1-Trichloroethane | 0.500 | 0.503 | 0.514 | 101 | 103 | 70.0-130 | | | 2.19 | 25 |
| 1,1,2-Trichloroethane | 0.500 | 0.510 | 0.516 | 102 | 103 | 70.0-130 | | | 1.27 | 25 |
| Trichloroethylene | 0.500 | 0.500 | 0.508 | 100 | 102 | 70.0-130 | | | 1.56 | 25 |
| Vinyl chloride | 0.500 | 0.507 | 0.521 | 101 | 104 | 70.0-130 | | | 2.69 | 25 |
| Vinyl acetate | 0.500 | 0.511 | 0.523 | 102 | 105 | 70.0-130 | | | 2.34 | 25 |
| *(S) 1,4-Bromofluorobenzene* | | | | *103* | *103* | *60.0-140* | | | | |

## Guide to Reading and Understanding Your Laboratory Report

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

## Abbreviations and Definitions

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

| Qualifier | Description |
|---|---|

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

# ACCREDITATIONS & LOCATIONS



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nevada | TN-03-2002-34 |
| Alaska | UST-080 | New Hampshire | 2975 |
| Arizona | AZ0612 | New Jersey–NELAP | TN002 |
| Arkansas | 88-0469 | New Mexico | TN00003 |
| California | 01157CA | New York | 11742 |
| Colorado | TN00003 | North Carolina | Env375 |
| Conneticut | PH-0197 | North Carolina [1] | DW21704 |
| Florida | E87487 | North Carolina [2] | 41 |
| Georgia | NELAP | North Dakota | R-140 |
| Georgia [1] | 923 | Ohio–VAP | CL0069 |
| Idaho | TN00003 | Oklahoma | 9915 |
| Illinois | 200008 | Oregon | TN200002 |
| Indiana | C-TN-01 | Pennsylvania | 68-02979 |
| Iowa | 364 | Rhode Island | 221 |
| Kansas | E-10277 | South Carolina | 84004 |
| Kentucky [1] | 90010 | South Dakota | n/a |
| Kentucky [2] | 16 | Tennessee [1 4] | 2006 |
| Louisiana | AI30792 | Texas | T 104704245-07-TX |
| Maine | TN0002 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | 6157585858 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 109 |
| Minnesota | 047-999-395 | Washington | C1915 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 9980939910 |
| Montana | CERT0086 | Wyoming | A2LA |
| Nebraska | NE-OS-15-05 | | |

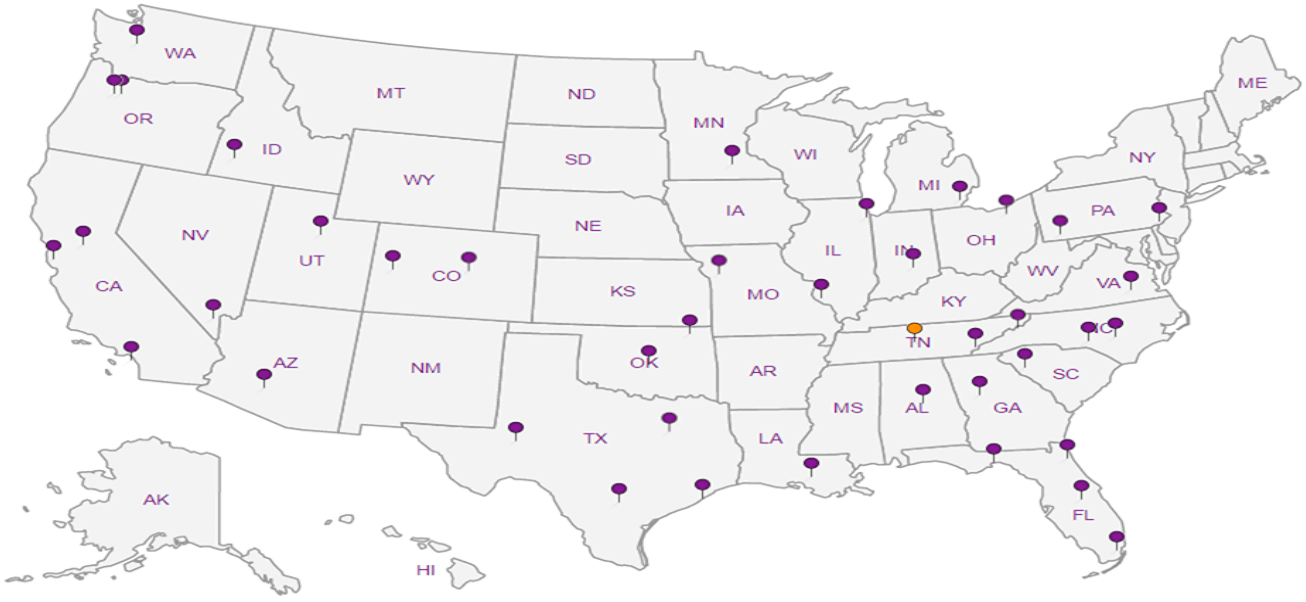
## Third Party & Federal Accreditations

| | | | |
|---|---|---|---|
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | S-67674 |
| EPA–Crypto | TN00003 | | |

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

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Company Name/Address: Apex Companies - Portland, OR

Billing Information: AP- Cindi Joy Staller
3015 SW First Ave
Portland, OR 97201

Report to: Kristina Summer

Email To: kristina.summer@apexcos.com

Project Description: AT&T Bothell

City/State Collected: Bothell, WA

Phone: 503/924-4704

Client Project # 2337

Lab Project # ASHCREPOR-SUMNER

Collected by (print): K. Summer

Site/Facility ID #

P.O. #

Collected by (signature):

**Rush?** (Lab MUST Be Notified)
___ Same Day ..... 200%
___ Next Day ..... 100%
___ Two Day ..... 50%
___ Three Day ..... 25%

Date Results Needed

Email? ___No X Yes
FAX? X No ___Yes

Canister Pressure/Vacuum

| Sample ID | Sample Description | Can # | Date | Time | Initial | Final |
|---|---|---|---|---|---|---|
| AMB-1 | Inside gen room | 8047 | 10/~~16~~ 10/11e | 0755 | -30 | -6 |

Analysis: Volatile Organics TO-15SIM — X

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
a subsidiary of Pace Analytical

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 94646

M220

Tab

Acctnum: ASHCREPOR

Template: T128908

Prelogin: P622571

TSR: Brian Ford

PB: TF 10-11-17

Shipped Via: Sauer

| Rem./Contaminant | Sample # (lab only) |
|---|---|
| | 01 |

Remarks:

Hold #

Condition: (lab use only)

COC Seal Intact: ___Y ___N ___NA

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| | 10/25/17 | 1417 | FedEx Shipper |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) |

Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐ ____

Temp: AMB °C Bottles Received: 1

Date: 10/26/17 Time: 8:45

pH Checked: NCF:

# ESC LAB SCIENCES
## Cooler Receipt Form

| | | | |
|---|---|---|---|
| Client: | ASHCREPOR | SDG# | 94646 |
| Cooler Received/Opened On: | 10/26/17 | Temperature: | AM13 |
| Received by: Christian Kacar | | | |
| Signature: | | | |

| Receipt Check List | NP | Yes | No |
|---|---|---|---|
| COC Seal Present / Intact? | ✓ | | |
| COC Signed / Accurate? | | ✓ | |
| Bottles arrive intact? | | ✓ | |
| Correct bottles used? | | ✓ | |
| Sufficient volume sent? | | ✓ | |
| If Applicable | | | |
| VOA Zero headspace? | | | |
| Preservation Correct / Checked? | | | |