ENVIRONMENTAL • GEOTECHNICAL
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# GROUNDWATER MONITORING REPORT
## (4th Quarter 2019 Event)

**Phillips 66 Facility No. 2701476 (AOC #2063)**
**12660 First Avenue South**
**Seattle, Washington 98168**
**Washington State Department of Ecology LUST Program ID #5748**
**Washington State Department of Ecology VCP No. NW2718**

**Submitted to:**
**Ms. Diane Escobedo**
**Washington State Department of Ecology**
**3190 160th Avenue Southeast**
**Bellevue, Washington 98008-5452**

**Submitted on behalf of:**
**Ed Ralston**
**Phillips 66 Company**
**Remediation Management**
**76 Broadway**
**Sacramento, California 95818**

**Submitted by:**
**ATC Group Services LLC**
**6347 Seaview Avenue Northwest**
**Seattle, Washington 98107**

**ATC Project No. Z076000070**
**April 3, 2020**

**Joseph Teresi**
**Staff Scientist**

**Elisabeth Silver, L.G.**
**Senior Project Manager**

**GROUNDWATER MONITORING REPORT**
**(4th Quarter 2019 Event)**
Phillips 66 Facility No. 2701476 (AOC #2063)
12660 First Avenue South
Seattle, Washington 98168

**SITE INFORMATION:**

| | |
|---|---|
| ATC Contact Person: | Elisabeth Silver, L.G. |
| Date of previous sampling event: | 09/12/19-09/13/19 |
| Current remediation technique(s): | None. Above ground Vapor and Groundwater Extraction/Air Sparge System Components Decommissioned in September 2016. |
| Ecology VCP Number: | NW2718 |

**FIELD ACTIVITY 12/11 – 12/12/19:**

| | |
|---|---|
| Date(s) monitored and/or sampled: | 12/11/19-12/12/19 |
| Wells monitored: | Nine: GW-10D,GW-13S, GW-13D, GW-14S, GW-14D, GW-15S, GW-15D, GW-18S, GW-18D |
| Wells sampled: | Eight wells (All wells sampled except well GW-18S due to insufficient water) |
| Purging method: | Wells were purged prior to sampling using low flow pumping via a submersible pump and dedicated tubing. |
| Sampling method: | Samples were collected using low flow pumping via a submersible pump and dedicated polyethylene tubing. |

**SITE HYDROGEOLOGY 12/11 – 12/12/19:**

| | |
|---|---|
| Minimum depth to groundwater (feet below top of casing [TOC]): | 40.00 (GW-13S, upper water bearing zone). |
| Maximum depth to groundwater (feet below TOC): | 79.00 (GW-10D, lower water bearing zone). |
| Average groundwater elevation (feet): | 371.62 (Upper water bearing zone - GW-13S, GW-14S, GW-15S, and GW-18S) and 341.70 (Lower water bearing zone - GW-10D, GW-13D, GW-14D, GW-15D, and GW-18D) |
| Change in average groundwater elevation since previous monitoring event (feet): | +0.33 (upper water bearing zone); +0.38 (lower water bearing zone) |
| Approximate groundwater gradient/flow direction: | 0.16 ft./ft. southwest (upper water bearing zone); 0.016 ft./ft. southwest, (lower water bearing zone) |
| Previous groundwater gradient/flow direction (09/12/19-09/13/19): | 0.13 ft./ft. southwest (upper water bearing zone); 0.014 ft./ft. southwest (lower water bearing zone) |

**GROUNDWATER CONDITIONS 12/11 – 12/12/19:**

| | |
|---|---|
| Minimum dissolved phase gasoline-range hydrocarbon concentration excluding "non-detects" (micrograms per liter [µg/L]): | 39.9J (GW-14D – lower water bearing zone) |
| Maximum dissolved phase gasoline-range hydrocarbon concentration (µg/L): | 114,000 (GW-14S – upper water bearing zone) |
| Maximum dissolved phase gasoline-range hydrocarbon concentration (µg/L) observed previous sampling event (September, 2019): | 93,400 (GW-14S – upper water bearing zone) |
| Minimum dissolved phase benzene concentration excluding "non-detects" (micrograms per liter [µg/L]): | 0.32J (GW-18S – upper water bearing zone) |
| Maximum dissolved phase benzene concentration (µg/L): | 693 (GW-14S – upper water bearing zone) |
| Maximum dissolved phase benzene concentration (µg/L) observed previous sampling event (September, 2019): | 671 (GW-14D – lower water bearing zone) |
| Minimum dissolved phase toluene concentration excluding "non-detects" (micrograms per liter [µg/L]): | 0.16J (GW-14D and GW-15D – lower water bearing zones) |
| Maximum dissolved phase toluene concentration (µg/L): | 3,900 (GW-14S – upper water bearing zone) |
| Maximum dissolved phase toluene concentration (µg/L) observed previous sampling event (September, 2019): | 3,660 (GW-14S – upper water bearing zone) |
| Minimum dissolved phase ethylbenzene concentration excluding "non-detects" (micrograms per liter [µg/L]): | 0.15J (GW-15S – upper water bearing zone) |
| Maximum dissolved phase ethylbenzene concentration (µg/L): | 2,430 (GW-14S – upper water bearing zone) |

| | |
|---|---|
| Maximum dissolved phase ethylbenzene concentration (µg/L) observed previous sampling event (September, 2019): | 2,840 (GW-14S – upper water bearing zone) |
| Minimum dissolved phase total xylenes concentration excluding "non-detects" (µg/L): | 17.6 (GW-15S – upper water bearing zone) |
| Maximum dissolved phase total xylenes concentration (µg/L): | 11,400 (GW-14S – upper water bearing zone) |
| Maximum dissolved phase total xylenes concentration (µg/L) observed previous sampling event (September, 2019): | 13,700 (GW-14S – upper water bearing zone) |
| Minimum total lead concentration excluding "non-detects" (µg/L): | 2.3J (GW-13S – upper water bearing zone) |
| Maximum total lead concentration (µg/L): | 5.0J (GW-13D – lower water bearing zone) |
| Maximum total lead concentration (µg/L) observed previous sampling event (September, 2019): | 11.1 (GW-14S – upper water bearing zone) |
| Minimum dissolved lead concentration excluding "non-detects" (µg/L): | All other wells "non-detect" |
| Maximum dissolved lead concentration (µg/L): | 2.2J (GW-14S – upper water bearing zone) |
| Maximum dissolved lead concentration (µg/L) observed previous sampling event (September, 2019): | All wells "non-detect" |

**ADDITIONAL INFORMATION AND COMMENTS:**

Based on historical quarterly data without exceedances of Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs), groundwater gauging and sampling were discontinued in the 3rd quarter 2019 in the following wells: GW7, GW8S, GW8D, GW9D, GW10S, GW11D, GW12D, GW16S, GW16D, GW17S, and GW17D.

Shallow Water Bearing Zone: During the December, 2019 event, gasoline-range hydrocarbons were detected at concentrations above MTCA Method A CULs in wells GW-13S and GW-14S. Benzene was detected at concentrations above the MTCA Method A CUL in GW-13S and GW-14S. Toluene, ethylbenzene, and total xylenes were detected at concentrations above MTCA Method A CULs in GW-14S, but were detected below MTCA Method A CULs in GW-13S. Gasoline-range hydrocarbons and BTEX (benzene, toluene, ethylbenzene, and xylenes) were detected below MTCA Method A CUL levels in GW-15S. Total lead was detected below the MTCA Method A CUL level in GW-13S and GW-14S and was detected below the laboratory reporting limit in GW-15S. Dissolved lead was detected below the MTCA Method A CUL level in GW-14S.

Deep Water Bearing Zone: Due to a prior anomalous diesel range detection in GW-10D in December 2014, diesel and heavy oil-range hydrocarbons were analyzed in the sample collected from GW-10D starting in the third quarter 2019. Diesel and heavy oil-range hydrocarbons were detected in GW-10D below the laboratory reporting limit. Gasoline-range hydrocarbons were detected in GW-13D, GW-14D, and GW-15D below the MTCA Method A CUL levels and below the laboratory reporting limit in GW-10D and GW-18D. Benzene was detected in GW-14D and GW-18D below the MTCA Method A CUL level and was not detected in the rest of the groundwater samples from the deep water bearing zone. Toluene and ethylbenzene were detected in GW-14D and GW-15D below the MTCA Method A CUL level and were not detected in the rest of the groundwater samples from the deep water bearing zone. Xylenes were not detected in any of the groundwater samples from the deep water bearing zone. Total lead was detected in GW-13D, GW-14D, GW-15D, and GW-18D below the MTCA Method A CUL level and was not detected in GW-10D. Dissolved lead was not detected in GW-10D, GW-13D, and GW-14D.

Dissolved lead samples were not collected from wells GW-13S, GW-15S, GW-15D, and GW-18D due to insufficient bottle ware.

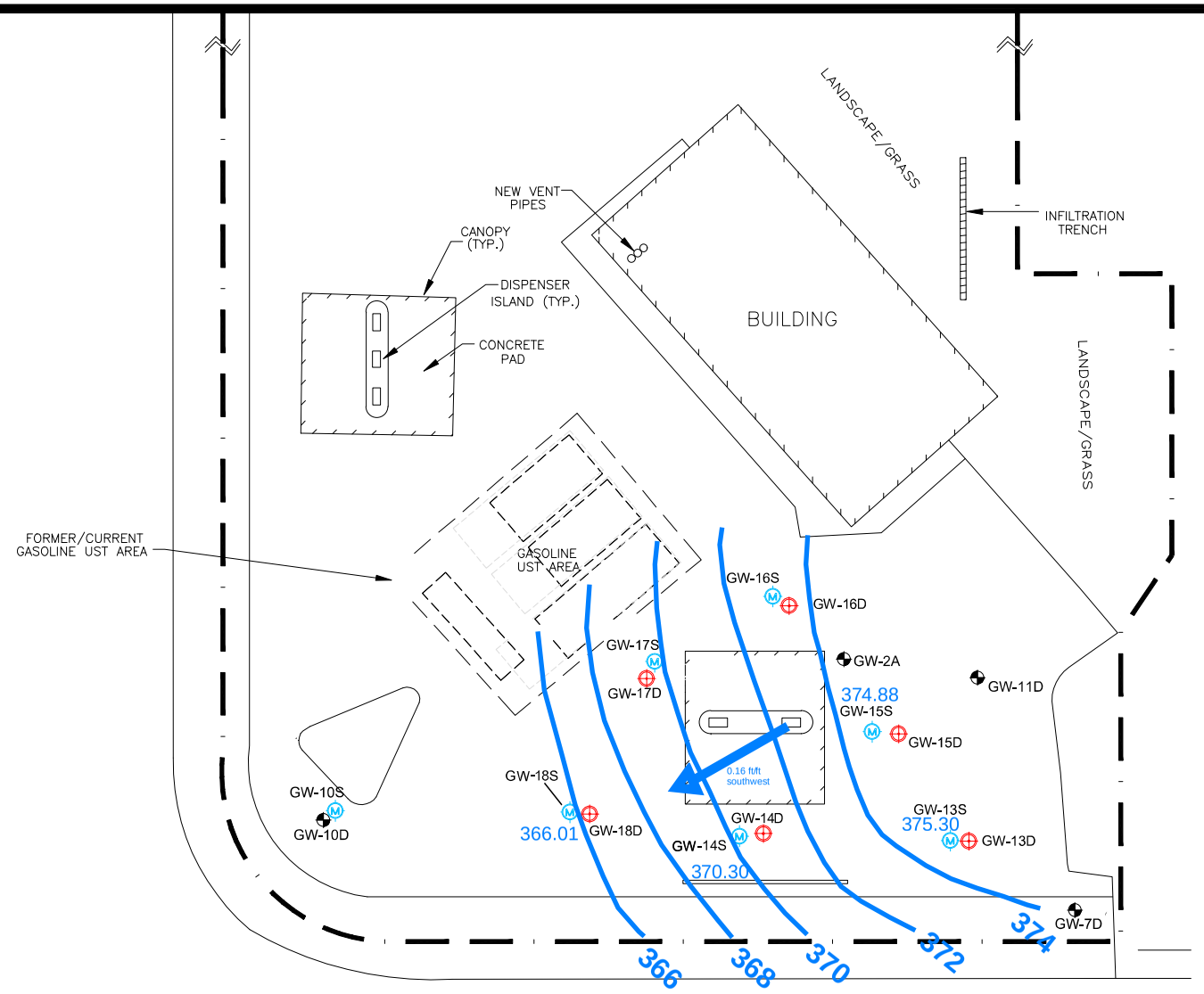
**Conclusions/Recommendations**

Fourth quarter groundwater monitoring and sampling indicate that groundwater flow was to the southwest in both the upper and lower water bearing zones. Hydrocarbon-related impacts above Method A CULs are limited to the area to the south and southeast of the southern dispensers in the upper zone, and to the south and east of the southern dispensers in the lower water bearing zone. ATC will continue to monitor these observed trends in the monitoring well network to gain a better understanding of groundwater conditions at the Site.

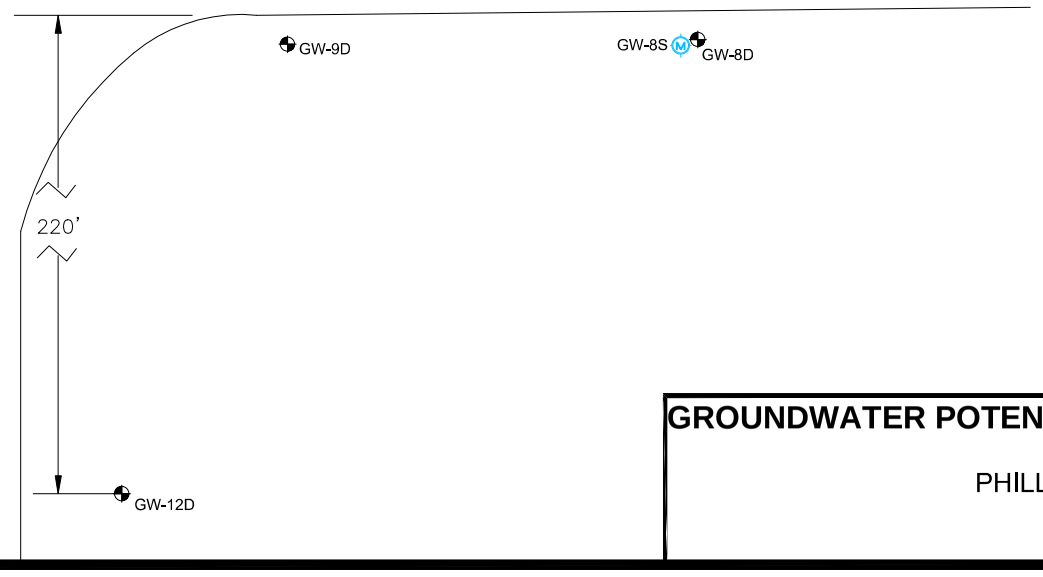
**ATTACHMENTS:**

Figure 1 Groundwater Potentiometric Map – Upper Water Bearing Zone (12/11/19 – 12/12/19)
Figure 2 Groundwater Potentiometric Map – Lower Water Bearing Zone (12/11/19 – 12/12/19)
Figure 3 Analytical Results Map (12/11/19 – 12/12/19)
Table 1 Summary of Historical Groundwater Gauging and Laboratory Analytical Data
Appendix A Laboratory Analytical Data Reports and Chain of Custody Documents
Appendix B Field Reports / Groundwater Gauging and Sampling Logs
Appendix C Non-hazardous Waste Documentation

**FIGURES**




SOUTHWEST 128TH STREET




1ST AVENUE SOUTH

N

0 30 60

SCALE, FT

NOTE: ALL LOCATIONS ARE APPROXIMATE

LEGEND

- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- APPROXIMATE SITE BOUNDARY
- APPROXIMATE SITE BOUNDARY
- 369.05 GROUNDWATER ELEVATION
- 370 GROUNDWATER ELEVATION CONTOUR
- INFERRED GROUNDWATER FLOW DIRECTION / CALCULATED GROUNDWATER GRADIENT (FEET PER FOOT)

0.16 ft/ft southwest

# GROUNDWATER POTENTIOMETRIC MAP - UPPER WATER BEARING ZONE (12/11/2019 – 12/12/2019)

PHILLIPS 66 FACILITY NO. 2701476 (AOC 2063)
12660 FIRST AVENUE SOUTH
SEATTLE, WASHINGTON

| | | | |
|---|---|---|---|
| PROJECT NUMBER: Z076000070 | | DATE: 1/2/2020 | FIGURE 1 |
| APPROVED BY: ES | | DRAWN BY: JT | |

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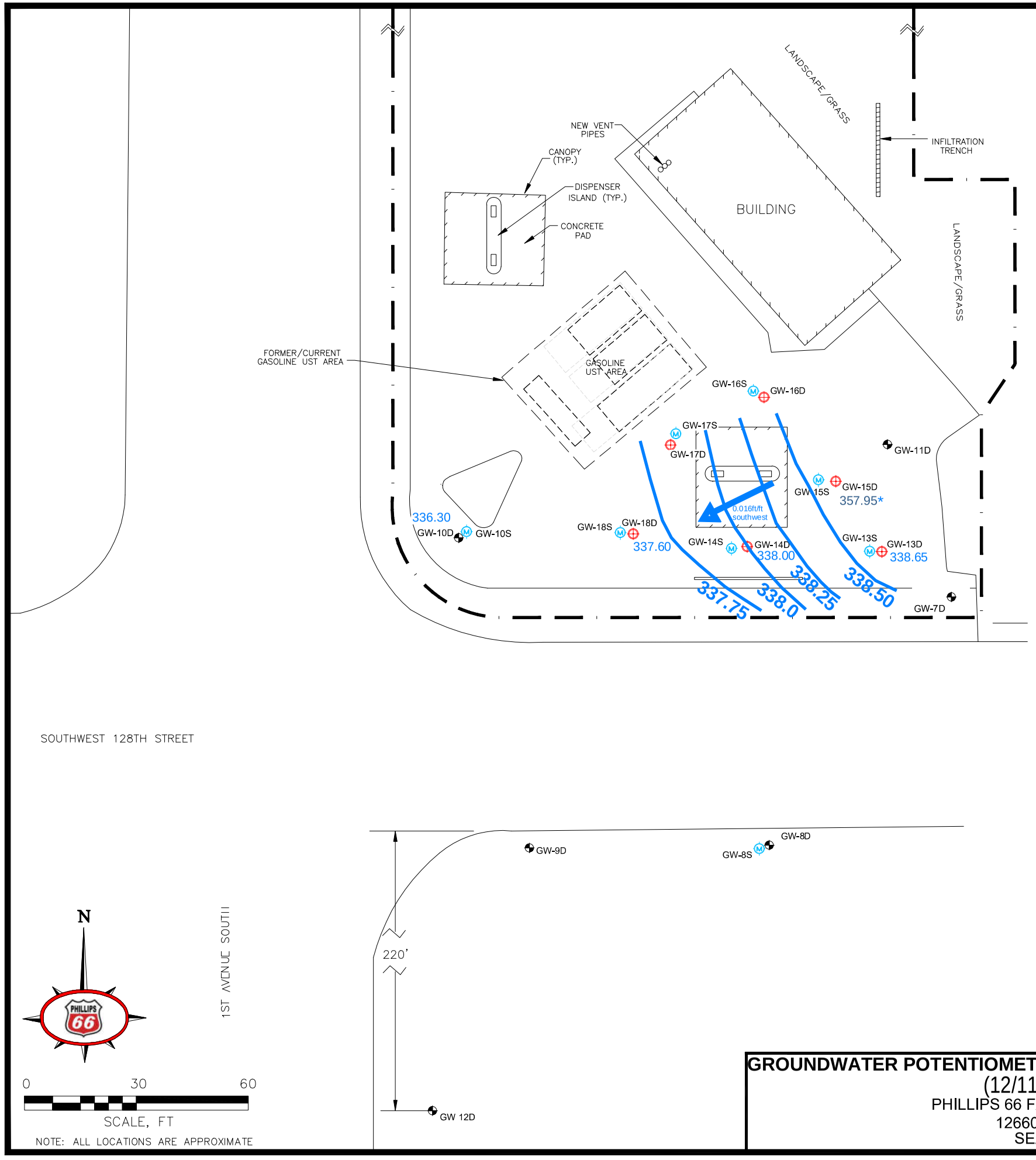


LEGEND

- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- APPROXIMATE SITE BOUNDARY
- 336.77 GROUNDWATER ELEVATION
- * 357.95 GROUNDWATER ELEVATION (NOT USED FOR CONTOURING)
- 337.0 GROUNDWATER ELEVATION CONTOUR
- INFERRED GROUNDWATER FLOW DIRECTION / CALCULATED GROUNDWATER GRADIENT (FEET PER FOOT)
  0.016ft/ft southwest

# GROUNDWATER POTENTIOMETRIC MAP - LOWER WATER BEARING ZONE

(12/11/2019 – 12/12/2019)

PHILLIPS 66 FACILITY NO. 2701476 (AOC 2063)

12660 FIRST AVENUE SOUTH

SEATTLE, WASHINGTON

| | | |
|---|---|---|
| PROJECT NUMBER: Z076000070 | DATE: 1/2/2020 | FIGURE 2 |
| APPROVED BY: ES | DRAWN BY: JT | |

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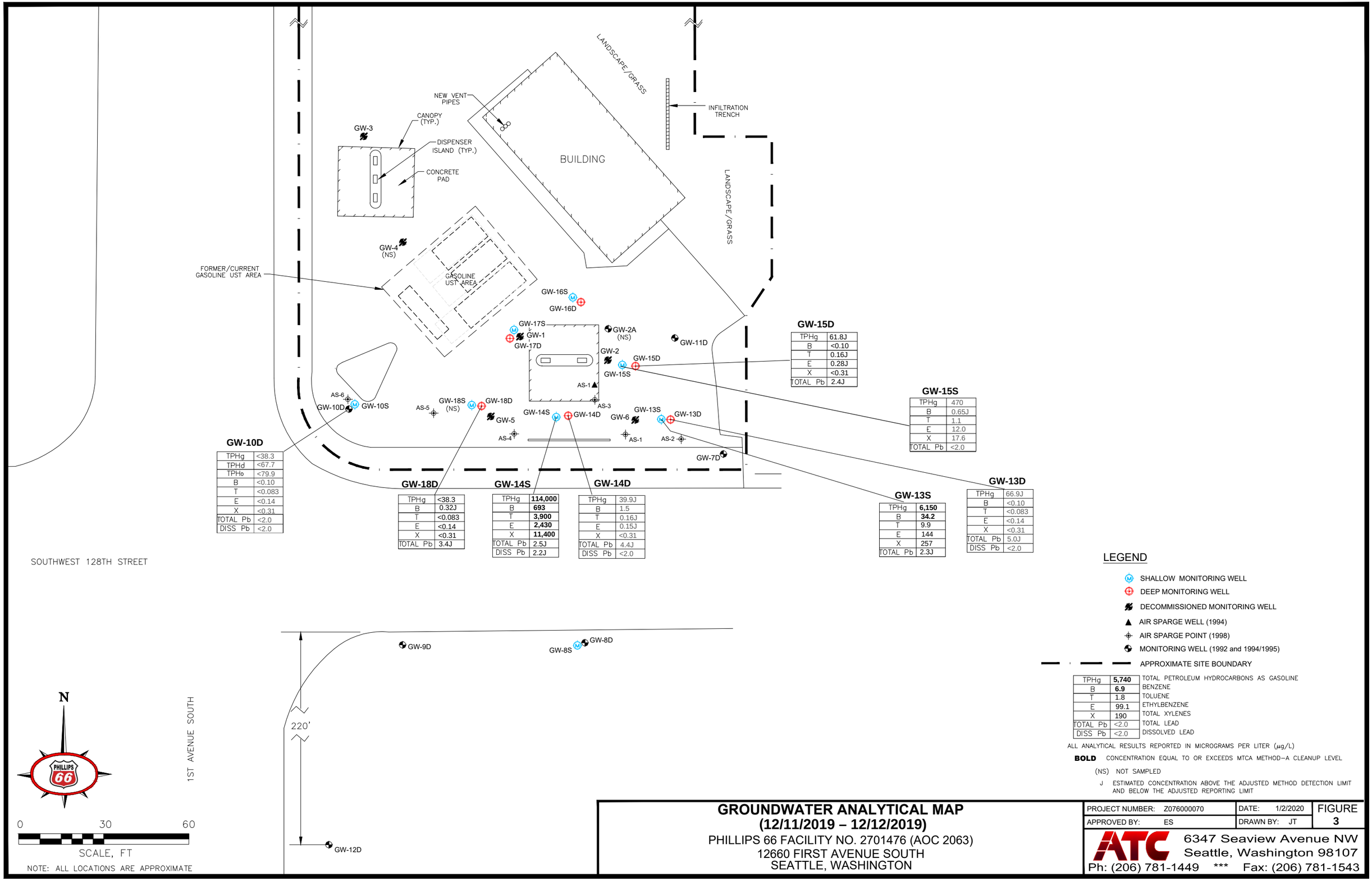


**GW-10D**

| | |
|---|---|
| TPHg | <38.3 |
| TPHd | <67.7 |
| TPHo | <79.9 |
| B | <0.10 |
| T | <0.083 |
| E | <0.14 |
| X | <0.31 |
| TOTAL Pb | <2.0 |
| DISS Pb | <2.0 |

**GW-18D**

| | |
|---|---|
| TPHg | <38.3 |
| B | 0.32J |
| T | <0.083 |
| E | <0.14 |
| X | <0.31 |
| TOTAL Pb | 3.4J |

**GW-14S**

| | |
|---|---|
| TPHg | **114,000** |
| B | **693** |
| T | **3,900** |
| E | **2,430** |
| X | **11,400** |
| TOTAL Pb | 2.5J |
| DISS Pb | 2.2J |

**GW-14D**

| | |
|---|---|
| TPHg | 39.9J |
| B | 1.5 |
| T | 0.16J |
| E | 0.15J |
| X | <0.31 |
| TOTAL Pb | 4.4J |
| DISS Pb | <2.0 |

**GW-15D**

| | |
|---|---|
| TPHg | 61.8J |
| B | <0.10 |
| T | 0.16J |
| E | 0.28J |
| X | <0.31 |
| TOTAL Pb | 2.4J |

**GW-15S**

| | |
|---|---|
| TPHg | 470 |
| B | 0.65J |
| T | 1.1 |
| E | 12.0 |
| X | 17.6 |
| TOTAL Pb | <2.0 |

**GW-13S**

| | |
|---|---|
| TPHg | **6,150** |
| B | **34.2** |
| T | 9.9 |
| E | 144 |
| X | 257 |
| TOTAL Pb | 2.3J |

**GW-13D**

| | |
|---|---|
| TPHg | 66.9J |
| B | <0.10 |
| T | <0.083 |
| E | <0.14 |
| X | <0.31 |
| TOTAL Pb | 5.0J |
| DISS Pb | <2.0 |

## LEGEND

- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- DECOMMISSIONED MONITORING WELL
- AIR SPARGE WELL (1994)
- AIR SPARGE POINT (1998)
- MONITORING WELL (1992 and 1994/1995)
- APPROXIMATE SITE BOUNDARY

| | |
|---|---|
| TPHg **5,740** | TOTAL PETROLEUM HYDROCARBONS AS GASOLINE |
| B **6.9** | BENZENE |
| T 1.8 | TOLUENE |
| E 99.1 | ETHYLBENZENE |
| X 190 | TOTAL XYLENES |
| TOTAL Pb <2.0 | TOTAL LEAD |
| DISS Pb <2.0 | DISSOLVED LEAD |

ALL ANALYTICAL RESULTS REPORTED IN MICROGRAMS PER LITER (µg/L)

**BOLD** CONCENTRATION EQUAL TO OR EXCEEDS MTCA METHOD–A CLEANUP LEVEL

(NS) NOT SAMPLED

J ESTIMATED CONCENTRATION ABOVE THE ADJUSTED METHOD DETECTION LIMIT AND BELOW THE ADJUSTED REPORTING LIMIT

# GROUNDWATER ANALYTICAL MAP (12/11/2019 – 12/12/2019)

PHILLIPS 66 FACILITY NO. 2701476 (AOC 2063)
12660 FIRST AVENUE SOUTH
SEATTLE, WASHINGTON

| | | | |
|---|---|---|---|
| PROJECT NUMBER: Z076000070 | | DATE: 1/2/2020 | FIGURE 3 |
| APPROVED BY: ES | | DRAWN BY: JT | |

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**TABLE**

**TABLE 1**
**SUMMARY OF HISTORICAL GROUNDWATER GAUGING AND LABORATORY ANALYTICAL DATA**
Phillips 66 Facility No. 2701476 (AOC 2063)
12660 First Avenue South
Seattle, Washington

| Well ID<br>TOC Elevation | Sample Date | | | | Total Petroleum Hydrocarbons | | | Aromatic Hydrocarbons | | | | | Metals | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DTW (feet) | LPH (feet) | GW Elev. (feet) | TPH-G (µg/L) | TPH-D (µg/L) | TPH-O (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) | MTBE (µg/L) | Total Lead (µg/L) | Dissolved Lead (µg/L) |
| **MTCA Method A Cleanup Levels** | | | | | **1,000/800[a]** | **500** | **500** | **5** | **1,000** | **700** | **1,000** | **20** | **15** | **15** |
| **GW1** | 05/07/91 | 38.97 | 0.00 | 61.03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 100.00 | 05/08/92 | 41.28 | 0.00 | 58.72 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/20/92 | 39.46 | 0.00 | 60.54 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 03/10/94 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/02/94 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/11/94 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/17/95 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/16/95 | 47.30 | 0.00 | 52.70 | **30,000** | -- | -- | **6,300** | **4,900** | 638 | **3,920** | -- | **30** | -- |
| | 08/09/95 | 47.65 | 0.00 | 52.35 | **17,000** | -- | -- | **3,200** | **1,700** | 230 | **1,400** | -- | 10 | -- |
| | 11/06/95 | 48.86 | 0.00 | 51.14 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/13/96 | 49.60 | 0.00 | 50.40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/21/96 | 49.54 | 0.00 | 50.46 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/21/96 | 39.91 | 0.00 | 60.09 | **62,000** | -- | -- | **14,000** | **16,000** | **780** | **5,100** | -- | 7 | -- |
| | 06/06/96 | 39.78 | 0.00 | 60.22 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/11/96 | 39.85 | 0.00 | 60.15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/24/96 | 42.14 | 0.00 | 57.86 | **75,000** | -- | -- | **14,000** | **15,000** | **890** | **5,400** | -- | 4 | -- |
| | 12/12/96 | 46.97 | 0.00 | 53.03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 03/24/97 | 34.84 | 0.00 | 65.16 | **170,000** | -- | -- | **29,000** | **44,000** | **2,000** | **14,000** | -- | **18** | -- |
| | 04/11/97 | 30.69 | 0.00 | 69.31 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/18/97 | 29.13 | 0.00 | 70.87 | **230,000** | -- | -- | **46,000** | **72,000** | **3,600** | **21,000** | -- | 13 | -- |
| | 08/25/97 | 35.41 | 0.00 | 64.59 | **170,000** | -- | -- | **3,000** | **46,000** | **2,900** | **16,000** | -- | 13 | -- |
| | 11/19/97[*] | 41.87 | 0.00 | 58.13 | **170,000** | -- | -- | **25,000** | **39,000** | **3,200** | **17,000** | -- | 14 | -- |
| | 02/12/98[NP] | 43.10 | 0.00 | 56.90 | **82,000** | -- | -- | **20,000** | **12,000** | **2,300** | **210** | -- | <2 | -- |
| | 05/14/98[NP] | 32.37 | 0.00 | 67.63[b] | **180,000** | -- | -- | **41,000** | **59,000** | **2,000** | **19,000** | -- | <2 | -- |
| | 08/25/98[NP] | 26.81 | 0.00 | 73.19[b] | **140,000** | -- | -- | **27,000** | **37,000** | **1,700** | **16,000** | -- | **22** | -- |
| | 11/13/98[NP] | 29.49 | 0.00 | 70.51[b] | **63,000** | -- | -- | **12,000** | **12,000** | 320 | **9,200** | -- | 9 | -- |
| | 02/10/99 | 45.96 | **Trace** | 54.04[b] | LPH Present | -- | -- | | | | | -- | -- | |
| | 05/28/99[NP] | 17.18 | 0.00 | 82.82[b] | **69,000** | -- | -- | **490** | **4,400** | 490 | **12,000** | -- | 10 | -- |
| | 08/18/99[NP] | 43.70 | 0.00 | 56.30[b] | **32,000** | -- | -- | **2,100** | 190 | 250 | **3,600** | -- | -- | -- |
| | 11/11/99[NP] | 34.01 | 0.00 | 65.99 | **6,110** | -- | -- | **849** | 333 | 31.8 | **1,320** | -- | 7.67 | -- |
| | 02/09/00[NP] | 48.11 | 0.00 | 51.89 | **83,000** | -- | -- | **1,200** | 860 | **740** | **13,000** | -- | **301** | -- |
| | 05/24/00[NP] | 26.35 | **Trace** | 73.65 | **1,200** | -- | -- | **55.9** | 81.2 | 2.09 | 248 | -- | -- | -- |
| | 09/11/00[NP] | 25.75 | 0.00 | 74.25 | 883 | -- | -- | **36.1** | 54.0 | <0.690 | 161 | -- | -- | -- |
| | 11/27/00 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/23/01 | 44.58 | 0.00 | 55.42 | 154 | -- | -- | **12.6** | 5.08 | < 0.500 | 17.1 | -- | -- | -- |
| | 05/16/01 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 08/30/01[NP] | 43.17 | 0.00 | 56.83 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | 2.62 | -- |
| | 11/19/01 | NM | -- | -- | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | <1.00 | -- |
| | 05/04/02 | 40.32 | 0.00 | 59.68 | <50.0 | -- | -- | 1.29 | <0.500 | <0.500 | 1.62 | -- | <1.00 | -- |
| | 11/20/02 | 36.15 | 0.00 | 63.85 | 149 | -- | -- | 0.575 | 0.938 | <0.500 | 12.5 | -- | 2.67 | <1.00 |
| | 05/21/03[NP] | 35.97 | 0.00 | 64.03 | **1,620** | -- | -- | **56.7** | 71.7 | <5.00 | 511 | -- | 8.58 | 4.98 |
| | 11/14/03[NP] | 33.91 | 0.00 | 66.09 | 528 | -- | -- | **15.0** | 9.9 | 1.1 | 47 | -- | 11.2 | <5.00 |
| | 5/13/04[NP] | 30.93 | 0.00 | 69.07 | **5,200** | -- | -- | **1,340** | 129 | 51.0 | 431 | -- | 14.4 | <5.00 |
| | 12/9/04 [NP] | 35.99 | 0.00 | 64.01 | **3,800** | -- | -- | **1,030** | 201 | <20 | 740 | -- | **15.0** | <10.0 |
| | 02/08/05 | 37.79 | 0.00 | 62.21 | **1,310** | -- | -- | **98.6** | 46.0 | <5.0 | 275 | -- | <10.0 | <10.0 |
| | 05/16/05 | 36.36 | 0.00 | 63.64 | **3,380** | -- | -- | **699.0** | 224.0 | <10 | 676 | 12 | <15 | <15 |
| | 11/22/05 | 40.77 | 0.00 | 59.23 | **5,900** | -- | -- | **2,200.0** | 420.0 | 66.0 | **1,200** | -- | <8.4 | -- |
| | 03/01/06 | Dry | 0.00 | -- | **--** | -- | -- | **--** | -- | -- | **--** | -- | -- | -- |
| | 05/30/06 | 47.26 | 0.00 | 52.74 | **860[d]** | -- | -- | **96[d]** | 8.6[d] | 12[d] | 120[d] | -- | **144** | <6.9 |
| | 08/28/06 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/14/06 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/21/07 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/22/07 | 39.18 | 0.00 | 60.82 | 160 | -- | -- | **92** | 4 | 2 | 5 | <0.5 | <6.9 | <6.9 |
| | 08/20/07 | 45.01 | 0.00 | 54.99 | 110 | -- | -- | **12** | 2 | 1 | 5 | <0.5 | <6.9 | <6.9 |
| | 11/19/07 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/19/08 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/19/08 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 414.74 | 08/18/08 | 49.56 | 0.00 | 365.18 | Well not sampled due to low water column. | | | | | | | | | |
| | 11/17/08 | 49.60 | 0.00 | 365.14 | Well not sampled due to low water column. | | | | | | | | | |
| | 02/04/09 | 51.20 | 0.00 | 363.54 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/04/09 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 08/03/09 | 44.90 | 0.00 | 369.84 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/03/09 | 48.74 | 0.00 | 366.00 | Well gauged only this quarter. | | | | | | | | | |
| | 02/08/10 | 49.48 | 0.00 | 365.26 | Well gauged only this quarter. | | | | | | | | | |
| | 05/03/10 | 43.45 | 0.00 | 371.29 | Well gauged only this quarter. | | | | | | | | | |
| | 09/07/10 | 45.99 | 0.00 | 368.75 | Well gauged only this quarter. | | | | | | | | | |
| | 12/01/10 | 48.84 | 0.00 | 365.90 | Well gauged only this quarter. | | | | | | | | | |
| | 02/10/11 | 45.91 | 0.00 | 368.83 | Well gauged only this quarter. | | | | | | | | | |
| | 05/18/11 | 35.25 | 0.00 | 379.49 | Well gauged only this quarter. | | | | | | | | | |
| | 09/02/11 | 43.42 | 0.00 | 371.32 | Well gauged only this quarter. | | | | | | | | | |
| | 12/07/11 | dry | -- | -- | Well gauged only this quarter. | | | | | | | | | |
| | 02/23/12 | 49.36 | 0.00 | 365.38 | Well not sampled due to low water column. | | | | | | | | | |
| | 05/22/12 | 39.57 | 0.00 | 375.17 | <500 | -- | -- | **9.8** | <1.0 | <1.0 | <3.0 | -- | 0.81 | <0.10 |
| | 08/01/12 | 43.70 | 0.00 | 371.04 | <50 | -- | -- | <1.0 | <1.0 | 1.2 | <3.0 | -- | 0.21 | 1.0 |
| | 03/22/13 | 43.28 | 0.00 | 371.46 | <100 | -- | -- | 4.6 | <1.0 | <1.0 | <3.0 | -- | <3.0 | <10.0 |
| | 09/20/13 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/18/14 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 04/29/15 | 42.89 | 0.00 | 371.85 | <100 | -- | -- | **7.70** | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| | 07/23/15 | 46.82 | 0.00 | 367.92 | <100 | -- | -- | 1.2 | <1.0 | <1.0 | <3.0 | -- | -- | -- |
| | 10/15/15 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/27/16 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/20/17 | 46.03 | 0.00 | 368.71 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <1.0 | -- | <10.0 | <10.0 |
| | 09/04/18 | 48.59 | 0.00 | 366.15 | Well not sampled due to low water column. | | | | | | | | | |
| | Well Decommissioned in October 2018 | | | | | | | | | | | | | |
| **GW2** | 05/07/91 | 35.56 | 0.00 | 63.76 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 99.32 | 05/08/92 | 36.53 | 0.00 | 62.79 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 03/10/94 | 48.43 | **4.15** | 54.00 | LPH Present | -- | -- | | | | | | | -- |
| | 05/02/94 | -- | **0.20** | -- | LPH Present | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/11/94 | 44.37 | **0.07** | 55.00 | LPH Present | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/17/95 | 44.92 | **0.03** | 54.42 | LPH Present | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/16/95 | 36.19 | **0.17** | 63.26 | **150,000** | -- | -- | **21,000** | **26,000** | **2,200** | **14,000** | -- | 9 | -- |
| | 08/09/95 | 39.16 | **0.31** | 60.39 | LPH Present | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/06/95 | 42.42 | **0.11** | 56.98 | LPH Present | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/13/96 | 36.62 | **0.12** | 62.79 | LPH Present | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**TABLE 1**
**SUMMARY OF HISTORICAL GROUNDWATER GAUGING AND LABORATORY ANALYTICAL DATA**
Phillips 66 Facility No. 2701476 (AOC 2063)
12660 First Avenue South
Seattle, Washington

| Well ID TOC Elevation | Sample Date | | | | Total Petroleum Hydrocarbons | | | Aromatic Hydrocarbons | | | | | Metals | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DTW (feet) | LPH (feet) | GW Elev. (feet) | TPH-G (µg/L) | TPH-D (µg/L) | TPH-O (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) | MTBE (µg/L) | Total Lead (µg/L) | Dissolved Lead (µg/L) |
| **MTCA Method A Cleanup Levels** | | | | | **1,000/800**[a] | **500** | **500** | **5** | **1,000** | **700** | **1,000** | **20** | **15** | **15** |
| **GW2** | 02/21/96 | 36.68 | **0.13** | 62.74 | LPH Present | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| (Cont) | 05/21/96 | 28.04 | **0.37** | 71.56 | LPH Present | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/06/96 | 29.09 | **0.41** | 70.54 | LPH Present | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/11/96 | 29.17 | **0.38** | 70.44 | LPH Present | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/24/96 | 37.45 | **0.41** | 62.18 | LPH Present | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/12/96 | 40.86 | **0.22** | 58.63 | LPH Present | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 03/24/97 | 25.93 | **0.13** | 73.49 | LPH Present | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 04/11/97 | 23.84 | **0.19** | 75.62 | LPH Present | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/18/97 | 25.87 | **0.02** | 73.47 | LPH Present | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 08/25/97 | 32.77 | **0.18** | 66.69 | LPH Present | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/19/97* | 37.67 | **0.07** | 61.70 | LPH Present | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/12/98[NP] | 32.81 | **0.03** | 66.53 | LPH Present | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/14/98[NP] | 26.37 | **0.04** | 72.98 | LPH Present | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 08/25/98 | Inaccessible - Lid Stuck | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/13/98 | Inaccessible - Lid Stuck | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/10/99 | Inaccessible - Lid Stuck | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/28/99 | Inaccessible - Lid Stuck | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 08/18/99[NP] | 33.58 | 0.00 | 65.74[b] | **180,000** | -- | -- | **15,000** | **22,000** | **2,200** | **20,000** | -- | -- | -- |
| | 11/11/99[NP] | 46.15 | 0.00 | 53.17 | **85,600** | -- | -- | **4,360** | **7,750** | **1,160** | **12,300** | -- | **152** | -- |
| | 02/09/00[NP] | 38.30 | 0.00 | 61.02 | **130,000** | -- | -- | **11,000** | **17,000** | **1,300** | **18,000** | -- | 6 | -- |
| | 05/24/00 | Inaccessible - Lid Stuck | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/11/00[NP] | 46.35 | 0.00 | 52.97 | **55,000** | -- | -- | **2,620** | **1,910** | 410 | **7,380** | -- | -- | -- |
| | 11/27/00 | 43.56 | **Trace** | 55.76 | **76,100** | -- | -- | **6,030** | **8,660** | **1,050** | **10,500** | -- | **148** | -- |
| | 02/23/01 | 46.15 | 0.00 | 53.17 | **64,300** | -- | -- | **5,100** | **5,880** | 667 | **9,140** | -- | **129** | -- |
| | 05/16/01 | 42.48 | 0.00 | 56.84 | **83,300** | -- | -- | **4,620** | **8,480** | **1,060** | **10,200** | -- | **248** | -- |
| | 08/30/01[NP] | 42.07 | **0.01** | 57.26 | LPH Present | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/19/01 | Inaccessible - Lid Stuck | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/04/02 | 31.15 | 0.00 | 68.17 | **51,900** | -- | -- | **5,330** | **4,780** | 255 | **7,650** | -- | **38.2** | -- |
| | 11/20/02 | 46.25 | 0.00 | 53.07 | **50,900** | -- | -- | **3,010** | **5,600** | **800** | **8,110** | -- | **3,850** | <1.00 |
| | 05/21/03[NP] | 45.86 | 0.00 | 53.46 | **35,100** | -- | -- | **3,910** | **4,020** | 248 | **4,760** | -- | **26.8** | **14.6** |
| | 11/14/03[NP C] | 44.35 | 0.00 | 54.97 | **1,760** | -- | -- | **96.2** | 11.0 | 1.0 | 73.1 | -- | <5.00 | <5.00 |
| | 5/13/04[NP] | 28.97 | 0.00 | 70.35 | **7,370** | -- | -- | **446** | 705 | 30.4 | 983 | -- | 8.28 | <5.00 |
| | 12/9/04 [NP] | 42.42 | 0.00 | 56.90 | **19,500** | -- | -- | **2,370** | **1,410** | 140 | **1,980** | -- | **20.9** | <10.0 |
| | 02/08/05 | 39.87 | 0.00 | 59.45 | **32,000** | -- | -- | **3,520** | **2,160** | 191 | **3,280** | -- | **24.8** | <10.0 |
| | 05/16/05 | 39.50 | 0.00 | 59.82 | **8,600** | -- | -- | **166** | 144 | 21 | 470 | 6.74 | 15.6 | <15 |
| | 08/18/05 | 44.78 | 0.00 | 54.54 | **10,000** | -- | -- | **930** | 220 | 79 | 900 | <5.0 | **283** | -- |
| | 11/22/05 | 48.18 | 0.00 | 51.14 | **15,000** | -- | -- | **2,600** | 770 | 110 | **1,400** | -- | <8.4 | -- |
| | 03/01/06 | 36.10 | 0.00 | 63.22 | **7,800** | -- | -- | **380** | 400 | 46 | 760 | <0.5 | <8.4 | -- |
| | 05/30/06 | 42.90 | 0.00 | 56.42 | **3,500** | -- | -- | **160** | 65 | 23 | 280 | -- | **26.2** | <6.9 |
| | 08/28/06 | 44.20 | 0.00 | 55.12 | **4,800** | -- | -- | **390** | 120 | 43 | 460 | 0.9 | <6.9 | <6.9 |
| | 11/14/06 | 44.06 | 0.00 | 55.26 | **12,000** | -- | -- | **860** | 720 | 130 | **1,500** | <1 | <6.9 | <6.9 |
| | 02/21/07 | 34.22 | 0.00 | 65.10 | **6,800** | -- | -- | **920** | 570 | 99 | 810 | <1 | 70.4 | 62.2 |
| | 05/22/07 | 32.70 | 0.00 | 66.62 | **20,000** | -- | -- | **650** | 1,000 | 380 | **2,700** | <1 | <6.9 | <6.9 |
| | 08/20/07 | 35.26 | 0.00 | 64.06 | **49,000** | -- | -- | **6,300** | **6,500** | 600 | **5,100** | <5 | <6.9 | <6.9 |
| | 11/19/07 | 41.37 | 0.00 | 57.95 | **12,000** | -- | -- | **2,000** | 390 | 260 | **1,200** | 0.6 | **15.1** | <6.9 |
| | 02/19/08 | 38.17 | 0.00 | 61.15 | **21,000** | -- | -- | **2,400** | 980 | 440 | **2,500** | <3 | 10.4 | 8.8 |
| 413.94 | 05/19/08 | 35.80 | 0.00 | 378.14 | **35,000** | -- | -- | **4,600** | **3,100** | 670 | **4,500** | <2.0 | **23.7** | <6.9 |
| | 08/18/08 | 38.75 | 0.00 | 375.19 | **20,000** | -- | -- | **3,200** | **1,400** | 560 | **3,500** | <3.0 | <6.9 | <6.9 |
| | 11/18/08 | 41.75 | 0.00 | 372.19 | **28,000** | -- | -- | **3,000** | 690 | 670 | **4,500** | <3 | 14.40 | <6.9 |
| | 02/04/09 | 39.85 | 0.00 | 374.09 | **28,700** | **2,800** | <410 | **1,600** | 130 | 560 | **3,700** | <1 | 1.34 | -- |
| | 05/05/09 | 36.00 | 0.00 | 377.94 | **40,800** | **1,200** | <420 | **3,590** 2n | **1,760** | 634 | **4,590** | <1.0 | 3.3 | <1.0 |
| | 08/03/09 | 36.60 | 0.00 | 377.34 | **40,300** | -- | -- | **6,710** | **2,440** | **959** | **7,180** | <5.0 | 3.2 | 2.5 |
| | 11/03/09 | 41.22 | 0.00 | 372.72 | **28,700** 1n,Z2 | -- | -- | **2,880** | 673 | 644 | **3,460** | <5.0 | 12.3 | 0.39 |
| | 02/08/10 | 37.04 | 0.00 | 376.90 | **42,600** 1n | -- | -- | **4,940** | **1,830** | **1,200** | **8,320** | <1.0 | **24.7** | 1.2 |
| | 05/03/10 | 32.17 | 0.00 | 381.77 | **17,400** | -- | -- | **2,060** | 746 | 422 | **2,990** | <1.0 | 4.1 | 0.36 |
| | 09/07/10 | 36.61 | 0.00 | 377.33 | **30,700** | -- | -- | **6,770** | **1,930** | **901** | **5,480** | <1.0 | 12.9 | 0.22 |
| | 12/01/10 | 39.35 | 0.00 | 374.59 | **20,600** | -- | -- | **3,260** | **283** | **802** | **3,450** | <1.0 | 9.2 | 0.14 |
| | 02/10/11 | 31.63 | 0.00 | 382.31 | **10,700** | -- | -- | **975** | **250** | 359 | **2,020** | <1.0 | -- | -- |
| | 05/18/11 | 25.11 | 0.00 | 388.83 | **503** | -- | -- | **6.7** | <1.0 | 2.3 | 35.0 | -- | 0.46 | 0.30 |
| | 09/02/11 | 34.81 | 0.00 | 379.13 | **23,700** | -- | -- | **2,880** | 317 | 563 | **2,710** | -- | 3.2 | 0.97 |
| | 12/07/11 | 40.12 | 0.00 | 373.82 | **15,300** | -- | -- | **1,280** | 64.8 | 430 | **1,210** | <1.0 | 5.0 | 0.14 |
| | 02/23/12 | 39.98 | 0.00 | 373.96 | **18,400** | -- | -- | **1,110** | 53.7 | 356 | **1,360** | -- | 1.1 | -- |
| | 05/22/12 | 29.37 | 0.00 | 384.57 | **9,810** | -- | -- | **1,780** | 148 | 304 | **1,320** | -- | 0.36 | 0.23 |
| | 08/01/12 | 33.91 | 0.00 | 380.03 | **11,200** | -- | -- | **1,820** | 97.4 | 428 | **1,470** | -- | 0.26 | 0.19 |
| | 03/22/13 | 32.59 | 0.00 | 381.35 | **4,300** | -- | -- | **466** | 13.7 | 114 | 271 | -- | <3.0 | <10.0 |
| | 09/20/13 | 34.58 | 0.00 | 379.36 | **19,600** | -- | -- | **3,960** | 130.0 | **760** | 220 | -- | **16.70** | <10.0 |
| | 12/19/14 | 39.91 | 0.00 | 374.03 | **13,000** | 120 | <500 | **1,900** | 33.0 | **810** | **1,500** | -- | <5.0 | <5.0 |
| | 04/29/15 | 30.61 | 0.00 | 383.33 | **13,600** | -- | -- | **1,830** | 42.6 | 599 | **1,300** | -- | <10.0 | <10.0 |
| | 07/23/15 | 35.92 | 0.00 | 378.02 | **22,500** | -- | -- | **5,670** | 190 | **907** | **2,300** | -- | -- | -- |
| | 10/15/15 | 40.35 | 0.00 | 373.59 | **10,700** | -- | -- | **1,460** | 26.3 | 449 | 537 | -- | -- | -- |
| | 09/27/16 | 38.80 | 0.00 | 375.14 | **10,400** | -- | -- | **1,140** | 61.4 | 479 | 898 | -- | <10.0 | <10.0 |
| | 09/20/17 | 35.11 | 0.00 | 378.83 | **2,860** | -- | -- | **327** | 22.0 | 174 | 294 | -- | <10.0 | <10.0 |
| | 09/05/18 | 37.61 | 0.00 | 376.33 | **7,570** | -- | -- | **1,070** | 50.2 | 579 | 404 | -- | 2.0 J | <2.0 |
| | | Well Decommissioned in Octoer 2018 | | | | | | | | | | | | |
| **GW2A** | 12/9/04 [NP] | NM | -- | NE | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NE | 02/08/05 | NM | -- | NE | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/16/05 | NM | -- | NE | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 08/18/05 | NM | -- | NE | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/22/05 | NM | -- | NE | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 03/01/06 | NM | -- | NE | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/30/06 | NM | -- | NE | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 08/28/06 | NM | -- | NE | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/14/06 | NM | -- | NE | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/21/07 | NM | -- | NE | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/22/07 | NM | -- | NE | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 08/20/07 | NM | -- | NE | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/19/07 | NM | -- | NE | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/19/08 | NM | -- | NE | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 414.5 | 05/19/08 | NM | -- | NE | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 08/18/08 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/18/08 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| | 02/04/09 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| | 05/04/09 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| | 08/03/09 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |

**TABLE 1**
**SUMMARY OF HISTORICAL GROUNDWATER GAUGING AND LABORATORY ANALYTICAL DATA**
Phillips 66 Facility No. 2701476 (AOC 2063)
12660 First Avenue South
Seattle, Washington

| Well ID TOC Elevation | Sample Date | DTW (feet) | LPH (feet) | GW Elev. (feet) | Total Petroleum Hydrocarbons TPH-G (µg/L) | TPH-D (µg/L) | TPH-O (µg/L) | Aromatic Hydrocarbons Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) | MTBE (µg/L) | Metals Total Lead (µg/L) | Dissolved Lead (µg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **MTCA Method A Cleanup Levels** | | | | | **1,000/800[a]** | **500** | **500** | **5** | **1,000** | **700** | **1,000** | **20** | **15** | **15** |
| **GW2A** | 11/03/09 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| (Cont) | 02/08/10 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| | 05/03/10 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| | 09/07/10 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| | 12/01/10 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| | 02/10/11 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| | 05/18/11 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| | 09/02/11 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| | 12/07/11 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| | 08/01/12 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| | 03/22/13 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| | 09/20/13 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| | 12/19/14 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| | 04/29/15 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| | 07/23/15 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| | 10/15/15 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| | 09/27/16 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| | 09/19/17 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| | 09/04/18 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| | 12/11/18 | NM | Stinger lodged in well, unable to gauge or sample. | | | | | | | | | | | |
| **GW3** | 05/02/94 | 71.02 | 0.00 | 31.93 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 102.95 | 11/11/94 | 82.85 | 0.00 | 20.10 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | <2 | -- |
| 102.78 | 02/17/95 | 82.81 | 0.00 | 19.97 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | 2 | -- |
| | 05/16/95 | 82.02 | 0.00 | 20.76 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | 5 | -- |
| | 08/09/95 | 81.33 | 0.00 | 21.45 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | <2 | -- |
| | 11/06/95 | 81.21 | 0.00 | 21.57 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | <2 | -- |
| | 02/13/96 | 84.06 | 0.00 | 18.72 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | <2 | -- |
| | 02/21/96 | 80.60 | 0.00 | 22.18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/21/96 | 79.24 | 0.00 | 23.54 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/06/96 | 79.07 | 0.00 | 23.71 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/11/96 | 78.97 | 0.00 | 23.81 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | <2 | -- |
| | 09/24/96 | 78.21 | 0.00 | 24.57 | <50 | -- | -- | 0.7 | 2 | <1 | 3 | -- | 2 | -- |
| | 12/12/96 | 78.64 | 0.00 | 24.14 | 216 | -- | -- | **21.6** | 54 | 2 | 11 | -- | <2 | -- |
| | 03/24/97 | 77.93 | 0.00 | 24.85 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | **38** | -- |
| | 04/11/97 | 77.40 | 0.00 | 25.38 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/18/97 | 76.11 | 0.00 | 26.67 | <50 | -- | -- | <0.5 | 1 | <1 | <1 | -- | 13 | -- |
| | 08/25/97 | 75.68 | 0.00 | 27.10 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | 13 | -- |
| | 11/19/97[*] | 76.58 | 0.00 | 26.20 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | **18** | -- |
| | 02/12/98[NP] | 76.72 | 0.00 | 26.06 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | <2 | -- |
| | 05/14/98[NP] | 76.15 | 0.00 | 26.63 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | <2 | -- |
| | 08/25/98 | 76.35 | 0.00 | 26.43[b] | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/13/98 | 77.88 | 0.00 | 24.90[b] | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/10/99 | 78.98 | 0.00 | 23.80[b] | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/28/99[NP] | 79.68 | 0.00 | 23.10[b] | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | <2 | -- |
| | 08/18/99[NP] | 76.45 | 0.00 | 26.33[b] | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/11/99[NP] | 79.18 | 0.00 | 23.60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/09/00[NP] | 78.42 | 0.00 | 24.36 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/24/00[NP] | 77.46 | 0.00 | 25.32 | 352 | -- | -- | <0.500 | <0.500 | <0.500 | 36.4 | -- | -- | -- |
| | 09/11/00[NP] | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/27/00 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/23/01 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/16/01 | 81.80 | 0.00 | 20.98 | <50 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | <1.00 | -- |
| | 08/30/01 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/19/01 | 82.30 | 0.00 | 20.48 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | <1.00 | -- |
| | 05/04/02 | 81.10 | 0.00 | 21.68 | 94.9 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | <1.00 | -- |
| | 11/20/02 | 80.72 | 0.00 | 22.06 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | 2.52 | <1.00 |
| | 05/21/03[NP] | 81.15 | 0.00 | 21.63 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | <1.00 | <1.00 |
| | 11/14/03[NP] | 81.59 | 0.00 | 21.19 | <50.0 | -- | -- | <1.00 | <1.00 | <1.00 | <1.50 | -- | <5.00 | <5.00 |
| | 5/13/04[NP] | 81.35 | 0.00 | 21.43 | <100 | -- | -- | <1.00 | <1.00 | <1.00 | <3.00 | -- | <5.00 | <5.00 |
| | 12/9/04 [NP] | 82.21 | 0.00 | 20.57 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/08/05 | 82.54 | 0.00 | 20.24 | <100 | -- | -- | <0.5 | <1.00 | <1.00 | <3.00 | -- | <10.0 | -- |
| | 05/16/05 | 82.75 | 0.00 | 20.03 | <100 | -- | -- | <1 | <1 | <1 | <3 | <1 | <15 | <15 |
| | 08/18/05 | 82.56 | 0.00 | 20.22 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | <0.3 | <8.4 | -- |
| | 11/22/05 | 82.51 | 0.00 | 20.27 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | <0.3 | <8.4 | -- |
| | 03/01/06 | 82.40 | 0.00 | 20.38 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.8 | <8.4 | -- |
| | 05/30/06 | 81.72 | 0.00 | 21.06 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | -- | <6.9 | <6.9 |
| | 08/28/06 | 81.10 | 0.00 | 21.68 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/14/06 | 81.50 | 0.00 | 21.28 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 02/21/07 | 81.05 | 0.00 | 21.73 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | **64.5** | **62.2** |
| | 05/22/07 | 81.10 | 0.00 | 21.68 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 08/20/07 | 79.42 | 0.00 | 23.36 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/19/07 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/19/08 | 80.47 | 0.00 | 22.31 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | 7.4 |
| | 05/19/08 | 80.52 | 0.00 | 337.22 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 08/18/08 | 80.80 | 0.00 | 336.94 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | 7.0 | <6.9 |
| | 11/17/08 | 81.19 | 0.00 | 336.55 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 02/04/09 | 81.50 | 0.00 | 336.24 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/04/09 | 81.72 | 0.00 | 336.02 | 87.2 4n | <83 | <420 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.50 | <1.0 |
| | 08/03/09 | 81.65 | 0.00 | 336.09 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/03/09 | 81.95 | 0.00 | 335.79 | Well gauged only this quarter. | | | | | | | | | |
| | 02/08/10 | 82.22 | 0.00 | 335.52 | Well gauged only this quarter. | | | | | | | | | |
| | 05/03/10 | 81.60 | 0.00 | 336.14 | Well gauged only this quarter. | | | | | | | | | |
| | 09/07/10 | 80.72 | 0.00 | 337.02 | Well gauged only this quarter. | | | | | | | | | |
| | 12/01/10 | 81.18 | 0.00 | 336.56 | Well gauged only this quarter. | | | | | | | | | |
| | 02/10/11 | 78.17 | 0.00 | 339.57 | Well gauged only this quarter. | | | | | | | | | |
| | 05/18/11 | 79.56 | 0.00 | 338.18 | Well gauged only this quarter. | | | | | | | | | |
| | 09/02/11 | 78.65 | 0.00 | 339.09 | Well gauged only this quarter. | | | | | | | | | |
| | 12/07/11 | 79.10 | 0.00 | 338.64 | Well gauged only this quarter. | | | | | | | | | |
| | 02/23/12 | 79.91 | 0.00 | 337.83 | Well gauged only this quarter. | | | | | | | | | |
| | 05/22/12 | 79.81 | 0.00 | 337.93 | Well gauged only this quarter. | | | | | | | | | |
| | 08/01/12 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 03/22/13 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/20/13 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/19/14 | 80.86 | -- | 336.88 | <100 | <100 | <500 | <0.50 | <0.50 | <0.50 | <0.50 | -- | <5.0 | <5.0 |
| | 04/29/15 | 80.70 | -- | 337.04 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| | 07/23/15 | 80.19 | -- | 337.55 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | -- | -- |
| | 10/15/15 | 80.61 | -- | 337.13 | <250 | -- | -- | <0.50 | <0.50 | <0.50 | <1.0 | -- | -- | -- |
| | 09/27/16 | 79.00 | -- | 338.74 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |

**TABLE 1**
**SUMMARY OF HISTORICAL GROUNDWATER GAUGING AND LABORATORY ANALYTICAL DATA**
Phillips 66 Facility No. 2701476 (AOC 2063)
12660 First Avenue South
Seattle, Washington

| Well ID TOC Elevation | Sample Date | | | | Total Petroleum Hydrocarbons | | | Aromatic Hydrocarbons | | | | | Metals | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DTW (feet) | LPH (feet) | GW Elev. (feet) | TPH-G (µg/L) | TPH-D (µg/L) | TPH-O (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) | MTBE (µg/L) | Total Lead (µg/L) | Dissolved Lead (µg/L) |
| **MTCA Method A Cleanup Levels** | | | | | **1,000/800[a]** | **500** | **500** | **5** | **1,000** | **700** | **1,000** | **20** | **15** | **15** |
| **GW3 Cont.** | 09/19/17 | 77.01 | -- | 340.73 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| 417.74 | 09/05/18 | 78.31 | -- | 339.43 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | Well Decommissioned in Octoer 2018 | | | | | | | | | | | | | |
| **GW4** | 05/02/94 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 101.84 | 11/11/94 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/17/95 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/16/95 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 08/09/95 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/06/95 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/13/96 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/21/96 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/21/96 | 78.27 | 0.00 | 23.57 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/06/96 | 78.10 | 0.00 | 23.74 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/11/96 | 78.02 | 0.00 | 23.82 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/24/96 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/12/96 | 77.71 | 0.00 | 24.13 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 03/24/97 | 76.88 | 0.00 | 24.96 | <50 | -- | -- | <50 | <1 | <1 | <1 | -- | **52** | -- |
| | 04/11/97 | 76.36 | 0.00 | 25.48 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/18/97 | 75.08 | 0.00 | 26.76 | <50 | -- | -- | <50 | <1 | <1 | <1 | -- | 4 | -- |
| | 08/25/97 | 74.70 | 0.00 | 27.14 | 300 | -- | -- | **9.8** | 15 | 3 | 46 | -- | 4 | -- |
| | 11/19/97[c] | 75.61 | 0.00 | 26.23 | <50 | -- | -- | 0.8 | <1 | <1 | <1 | -- | **18** | -- |
| | 02/12/98[NP] | 75.90 | 0.00 | 25.94 | <50 | -- | -- | 1 | <1 | <1 | <1 | -- | **27** | -- |
| | 05/14/98[NP] | 75.18 | 0.00 | 26.66 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | <2 | -- |
| | 08/25/98[NP] | 75.45 | 0.00 | 26.39[b] | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | **23** | -- |
| | 11/13/98[NP] | 77.24 | 0.00 | 24.60[b] | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | **103** | -- |
| | 02/10/99 | 78.08 | 0.00 | 23.76[b] | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | -- | -- |
| | 05/28/99[NP] | 73.80 | 0.00 | 28.04[b] | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | <2 | -- |
| | 08/18/99[NP] | 75.54 | 0.00 | 26.30[b] | <50 | -- | -- | 0.5 | <1 | <1 | 2 | -- | -- | -- |
| | 11/11/99[NP] | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/09/00[NP] | 77.50 | 0.00 | 24.34 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | **24** | -- |
| | 05/24/00[NP] | 75.70 | 0.00 | 26.14 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | 2.88 | -- | -- | -- |
| | 09/11/00[NP] | 71.56 | 0.00 | 30.28 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | -- | -- |
| | 11/27/00[NP] | 78.40 | 0.00 | 23.44 | 141 | -- | -- | <0.500 | 1.10 | <0.500 | 5.59 | -- | **254** | -- |
| | 02/23/01 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/16/01 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 08/30/01 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/19/01 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/04/02 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/20/02 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/21/03[NP] | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/14/03[NP] | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/13/04[NP] | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/9/04 [NP] | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/08/05 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/16/05 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 08/18/05 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/22/05 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 03/01/06 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/30/06 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 08/28/06 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/14/06 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/21/07 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/22/07 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 8/20/2007[d] | 78.47 | DRY | 23.37 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/19/07 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/19/08 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 416.79 | 05/19/08 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 08/18/08 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/17/08 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/04/09 | 79.15 | 0.00 | 337.64 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/4/090 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 08/03/09 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/03/09 | 79.10 | 0.00 | 337.69 | Well gauged only this quarter. | | | | | | | | | |
| | 02/08/10 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/03/10 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/07/10 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/01/10 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/10/11 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/18/11 | 78.55 | 0.00 | 338.24 | Well gauged only this quarter. | | | | | | | | | |
| | 09/02/11 | 77.64 | 0.00 | 339.15 | Well gauged only this quarter. | | | | | | | | | |
| | 12/07/11 | 78.21 | 0.00 | 338.58 | Well gauged only this quarter. | | | | | | | | | |
| | 02/23/12 | Dry | -- | -- | Well gauged only this quarter. | | | | | | | | | |
| | 05/22/12 | Dry | -- | -- | Well gauged only this quarter. | | | | | | | | | |
| | 08/01/12 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/19/14 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 04/29/15 | Dry | Dry | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 07/23/15 | Dry | Dry | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 10/15/15 | Dry | Dry | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/27/16 | Dry | Dry | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/19/17 | 76.10 | 0.00 | 340.69 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| | 09/11/18 | 77.37 | -- | 339.42 | Well gauged only this quarter. | | | | | | | | | |
| | Well Decommissioned in Octoer 2018 | | | | | | | | | | | | | |
| **GW5** | 05/02/94 | 78.84 | 0.00 | 20.14 | **100,000** | -- | -- | **8,200** | **15,000** | **2,100** | **12,000** | -- | 3 | -- |
| 98.98 | 11/11/94 | 79.14 | 0.00 | 19.84 | **160,000** | -- | -- | **20,000** | **33,000** | **2,300** | **15,000** | -- | 6 | -- |
| | 02/17/95 | 79.14 | 0.00 | 19.84 | **130,000** | -- | -- | **14,000** | **25,000** | **1,550** | **11,000** | -- | 6 | -- |
| | 05/16/95 | 78.31 | 0.00 | 20.67 | **180,000** | -- | -- | **19,000** | **34,000** | **2,300** | **16,000** | -- | 8 | -- |
| | 08/09/95 | 77.55 | 0.00 | 21.43 | **200,000** | -- | -- | **22,000** | **38,000** | **2,400** | **18,000** | -- | **17** | -- |
| | 11/06/95 | 77.49 | 0.00 | 21.49 | **184,000** | -- | -- | **20,000** | **42,000** | **2,900** | **19,000** | -- | **15** | -- |
| | 02/13/96 | 77.31 | 0.00 | 21.67 | **190,000** | -- | -- | **19,000** | **42,000** | **2,900** | **18,000** | -- | 8 | -- |
| | 02/21/96 | 76.89 | 0.00 | 22.09 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/21/96 | 75.21 | 0.00 | 23.77 | **32,000** | -- | -- | **1,800** | **2,100** | 100 | **5,900** | -- | 6 | -- |
| | 06/06/96 | 75.04 | 0.00 | 23.94 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/11/96 | 75.07 | 0.00 | 23.91 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/24/96 | 74.47 | 0.00 | 24.51 | **56,000** | -- | -- | **3,800** | **5,100** | 90 | **8,700** | -- | 4 | -- |

**TABLE 1**
**SUMMARY OF HISTORICAL GROUNDWATER GAUGING AND LABORATORY ANALYTICAL DATA**
Phillips 66 Facility No. 2701476 (AOC 2063)
12660 First Avenue South
Seattle, Washington

| Well ID TOC Elevation | Sample Date | | | | Total Petroleum Hydrocarbons | | | Aromatic Hydrocarbons | | | | | Metals | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DTW (feet) | LPH (feet) | GW Elev. (feet) | TPH-G (µg/L) | TPH-D (µg/L) | TPH-O (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) | MTBE (µg/L) | Total Lead (µg/L) | Dissolved Lead (µg/L) |
| **MTCA Method A Cleanup Levels** | | | | | **1,000/800[a]** | **500** | **500** | **5** | **1,000** | **700** | **1,000** | **20** | **15** | **15** |
| | 12/12/96 | 74.99 | 0.00 | 23.99 | **88,000** | -- | -- | **2,200** | **4,700** | 43 | **16,000** | -- | **42** | -- |
| **GW5** | 03/24/97 | 24.90 | 0.00 | 74.08 | **7,800** | -- | -- | **690** | 790 | 13 | **1,300** | -- | **34** | -- |
| (Cont) | 04/11/97 | 73.31 | 0.00 | 25.67 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/18/97 | 72.05 | 0.00 | 26.93 | **90,000** | -- | -- | **9,000** | **21,000** | **1,400** | **12,000** | -- | 4 | -- |
| | 08/25/97 | 71.85 | 0.00 | 27.13 | **45,000** | -- | -- | **4,600** | **7,000** | 180 | **6,500** | -- | 4 | -- |
| | 11/19/97* | 72.77 | 0.00 | 26.21 | **44,000** | -- | -- | **3,700** | **7,200** | 530 | **4,800** | -- | 5 | -- |
| | 02/12/98[NP] | 73.10 | 0.00 | 25.88 | **65,000** | -- | -- | **6,800** | **10,000** | **990** | **5,500** | -- | 3 | -- |
| | 05/14/98[NP] | 72.40 | 0.00 | 26.58[b] | **56,000** | -- | -- | **7,700** | **11,000** | **1,000** | **10,000** | -- | 6 | -- |
| | 08/25/98[NP] | 67.44 | 0.00 | 31.54[b] | **25,000** | -- | -- | **120** | **450** | 58 | **5,300** | -- | 6 | -- |
| | 11/13/98 | Inaccessible - Lid Stuck | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/10/99 | Inaccessible - Lid Stuck | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/28/99 | Inaccessible - Lid Stuck | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 08/18/99[NP] | 72.85 | 0.00 | 26.13[b] | **4,900** | -- | -- | **430** | 480 | 36 | 560 | -- | -- | -- |
| | 11/11/99[NP] | 76.11 | 0.00 | 22.87 | 276 | -- | -- | 3.07 | 4.94 | 0.815 | 22.2 | -- | **9.62** | -- |
| | 02/09/00[NP] | 75.62 | 0.00 | 23.36 | 94 | -- | -- | <0.5 | 2 | <1 | 9 | -- | 7 | -- |
| | 05/24/00[NP] | 38.60 | 0.00 | 60.38 | 367 | -- | -- | **21.9** | 40.1 | 1.34 | 77.2 | -- | -- | -- |
| | 09/11/00[NP] | 60.00 | 0.00 | 38.98 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/27/00 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/23/01 | 48.75 | 0.00 | 50.23 | 436 | -- | -- | <0.500 | 4.35 | 1.57 | 50.1 | -- | 5.31 | -- |
| | 05/16/01 | 79.44 | 0.00 | 19.54 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | 2.35 | -- |
| | 08/30/01[NP] | 77.78 | 0.00 | 21.20 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | 1.04 | -- |
| | 11/19/01 | 79.37 | 0.00 | 19.61 | 472 | -- | -- | <0.500 | 8.43 | 1.34 | 79.1 | -- | 1.93 | -- |
| | 05/04/02 | 76.90 | 0.00 | 22.08 | <50.0 | -- | -- | <0.500 | 0.630 | <0.500 | 1.82 | -- | <1.00 | -- |
| | 11/20/02 | 76.93 | 0.00 | 22.05 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | 1.70 | <1.00 |
| | 05/21/03[NP] | 78.00 | 0.00 | 20.98 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | 1.02 | <1.00 |
| | 11/14/03[NP c] | 79.12 | 0.00 | 19.87 | <50.0 | -- | -- | <1.00 | <1.00 | <1.00 | <1.50 | -- | <5.00 | <5.00 |
| | 5/13/04[NP] | 78.51 | 0.00 | 20.47 | <100 | -- | -- | <1.00 | <1.00 | <1.00 | <3.00 | -- | <5.00 | <5.00 |
| | 12/9/04 [NP] | 80.04 | 0.00 | 18.94 | <100 | -- | -- | <1.00 | <1.00 | <1.00 | <3.00 | -- | <10.0 | <10.0 |
| | 02/08/05 | 78.70 | 0.00 | 20.28 | <100 | -- | -- | <0.5 | <1.00 | <1.00 | <3.00 | -- | <10.0 | <10.0 |
| | 05/16/05 | 79.64 | 0.00 | 19.34 | <100 | -- | -- | <1 | <1 | <1 | <3 | <1 | <15 | <15 |
| | 08/18/05 | 80.55 | 0.00 | 18.43 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | <0.3 | <8.4 | -- |
| | 11/22/05 | 78.24 | 0.00 | 20.74 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | <0.3 | <8.4 | -- |
| | 03/01/06 | 77.97 | 0.00 | 21.01 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <8.4 | -- |
| | 05/30/06 | 77.33 | 0.00 | 21.65 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | -- | <6.9 | <6.9 |
| | 08/28/06 | 76.68 | 0.00 | 22.30 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/14/06 | 78.35 | 0.00 | 20.63 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 02/21/07 | 76.70 | 0.00 | 22.28 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | 43.6 | 43.3 |
| | 05/22/07 | 75.78 | 0.00 | 23.20 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 08/20/07 | 75.15 | 0.00 | 23.83 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/19/07 | 76.01 | 0.00 | 22.97 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 02/19/08 | 73.98 | 0.00 | 25.00 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| 413.40 | 05/19/08 | 76.12 | 0.00 | 337.28 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 08/18/08 | 76.52 | 0.00 | 336.88 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/17/08 | 77.00 | 0.00 | 336.40 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 02/04/09 | 77.30 | 0.00 | 336.10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/04/09 | 77.40 | 0.00 | 336.00 | <50.0 4n | <83 | <420 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 08/03/09 | 77.38 | 0.00 | 336.02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/03/09 | 77.71 | 0.00 | 335.69 | Well gauged only this quarter. | | | | | | | | | |
| | 02/08/10 | 77.94 | 0.00 | 335.46 | Well gauged only this quarter. | | | | | | | | | |
| | 05/03/10 | 77.19 | 0.00 | 336.21 | Well gauged only this quarter. | | | | | | | | | |
| | 09/07/10 | 76.40 | 0.00 | 337.00 | Well gauged only this quarter. | | | | | | | | | |
| | 12/01/10 | 76.94 | 0.00 | 336.46 | Well gauged only this quarter. | | | | | | | | | |
| | 02/10/11 | 76.18 | 0.00 | 337.22 | Well gauged only this quarter. | | | | | | | | | |
| | 05/18/11 | 74.77 | 0.00 | 338.63 | Well gauged only this quarter. | | | | | | | | | |
| | 09/02/11 | 74.33 | 0.00 | 339.07 | Well gauged only this quarter. | | | | | | | | | |
| | 12/07/11 | 74.94 | 0.00 | 338.46 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | 0.33 | 0.13 |
| | 02/23/12 | 75.78 | 0.00 | 337.62 | Well gauged only this quarter. | | | | | | | | | |
| | 05/22/12 | 75.44 | 0.00 | 337.96 | Well gauged only this quarter. | | | | | | | | | |
| | 08/01/12 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 03/22/13 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/20/13 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/19/14 | 76.60 | -- | 336.80 | <100 | <100 | <500 | <0.50 | <0.50 | <0.50 | <0.50 | -- | <5.0 | <5.0 |
| | 4/29/2015** | 74.44 | -- | 338.96 | 249 | -- | -- | **14.2** | <1.0 | 1.6 | 14.7 | -- | <10.0 | <10.0 |
| | 07/23/15 | 75.06 | -- | 338.34 | 182 | -- | -- | 3.9 | <1.0 | 2.4 | 7.6 | -- | -- | -- |
| | 10/15/15 | 76.34 | -- | 337.06 | <250 | -- | -- | <0.50 | <0.50 | <0.50 | <1.0 | -- | -- | -- |
| | 09/27/16 | 74.75 | -- | 338.65 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| | 09/20/17 | 63.21 | -- | 350.19 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| | 09/05/18 | 74.04 | -- | 339.36 | <19.6 | -- | -- | 0.60 J | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | Well Decommissioned in October 2018 | | | | | | | | | | | | | |
| **GW6** | 05/02/94 | 42.10 | **1.90** | 57.57 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 98.24 | 11/11/94 | 41.67 | **0.65** | 57.06 | LPH Present | -- | -- | | | | | -- | -- | -- |
| | 02/17/95 | 41.13 | **0.24** | 57.29 | LPH Present | -- | -- | | | | | -- | -- | -- |
| | 05/16/95 | 32.62 | **0.24** | 65.80 | **130,000** | -- | -- | **14,000** | **21,000** | **2,000** | **11,000** | -- | 2 | -- |
| | 08/09/95 | 32.65 | **0.03** | 65.61 | LPH Present | -- | -- | | | | | -- | -- | -- |
| | 11/06/95 | 40.26 | **0.06** | 58.03 | LPH Present | -- | -- | | | | | -- | -- | -- |
| | 02/13/96 | 32.10 | 0.00 | 66.14 | **68,000** | -- | -- | **11,000** | **13,000** | **1,100** | **6,000** | -- | 5 | -- |
| | 02/21/96 | 32.18 | **0.05** | 66.10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/21/96 | 27.40 | 0.00 | 70.84 | **36,000** | -- | -- | **2,300** | **3,300** | 560 | **3,700** | -- | **20** | -- |
| | 06/06/96 | 28.16 | 0.00 | 70.08 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/11/96 | 28.23 | 0.00 | 70.01 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/24/96 | 35.38 | 0.00 | 62.86 | **36,000** | -- | -- | **3,800** | **5,100** | **790** | **4,300** | -- | **22** | -- |
| | 12/12/96 | 37.76 | 0.00 | 60.48 | **66,000** | -- | -- | **4,100** | **7,900** | **1,100** | **6,500** | -- | **48** | -- |
| | 03/24/97 | 24.55 | 0.00 | 73.69 | **82,000** | -- | -- | **2,700** | **12,000** | **1,700** | **10,000** | -- | **41** | -- |
| | 04/11/97 | 23.32 | 0.00 | 74.92 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/18/97 | 25.51 | 0.00 | 72.73 | **43,000** | -- | -- | **4,100** | **7,300** | **800** | **4,500** | -- | 10 | -- |
| | 08/25/97 | 30.55 | 0.00 | 67.69 | **52,000** | -- | -- | **5,600** | **11,000** | **1,200** | **6,200** | -- | 10 | -- |
| | 11/19/97* | 34.17 | 0.00 | 64.07 | **81,000** | -- | -- | **8,700** | **15,000** | **1,500** | **7,700** | -- | 13 | -- |
| | 02/12/98[NP] | 26.67 | 0.00 | 71.57 | **1,400** | -- | -- | **33** | 51 | 59 | 110 | -- | 6 | -- |
| | 05/14/98[NP] | 26.00 | 0.00 | 72.24[b] | **1,800** | -- | -- | **42** | 170 | 98 | 310 | -- | 5 | -- |
| | 08/25/98[NP] | 25.99 | 0.00 | 72.25[b] | **14,000** | -- | -- | **220** | 890 | **79** | **3,100** | -- | 5 | -- |
| | 11/13/98 | Inaccessible - Lid Stuck | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/10/99 | Inaccessible - Lid Stuck | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/28/99 | Inaccessible - Lid Stuck | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 08/18/99[NP] | 32.94 | 0.00 | 65.30[b] | **26,000** | -- | -- | **1,100** | **2,600** | 240 | **3,100** | -- | -- | -- |
| | 11/11/99[NP] | 43.39 | 0.00 | 54.85 | 218 | -- | -- | 1.11 | 5.55 | 0.642 | 30.1 | -- | 4.47 | -- |

**TABLE 1**
**SUMMARY OF HISTORICAL GROUNDWATER GAUGING AND LABORATORY ANALYTICAL DATA**
Phillips 66 Facility No. 2701476 (AOC 2063)
12660 First Avenue South
Seattle, Washington

| Well ID<br>TOC Elevation | Sample Date | | | | Total Petroleum Hydrocarbons | | | Aromatic Hydrocarbons | | | | | Metals | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DTW (feet) | LPH (feet) | GW Elev. (feet) | TPH-G (µg/L) | TPH-D (µg/L) | TPH-O (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) | MTBE (µg/L) | Total Lead (µg/L) | Dissolved Lead (µg/L) |
| **MTCA Method A Cleanup Levels** | | | | | **1,000/800[a]** | **500** | **500** | **5** | **1,000** | **700** | **1,000** | **20** | **15** | **15** |
| | 02/09/00[NP] | 36.20 | 0.00 | 62.04 | <50 | -- | -- | <0.5 | <1 | <1 | 2 | -- | <2 | -- |
| **GW6** | 05/24/00[NP] | 27.52 | 0.00 | 70.72 | <50.0 | -- | -- | 2.31 | 1.05 | <0.500 | 1.34 | -- | -- | -- |
| (Cont) | 09/11/00[NP] | 26.46 | 0.00 | 71.78 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | -- | -- |
| | 11/27/00 | 40.05 | 0.00 | 58.19 | **1,990** | -- | -- | **214** | 265 | 20.7 | 333 | -- | **329** | -- |
| | 02/23/01 | 34.58 | 0.00 | 63.66 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | 1.18 | -- |
| | 05/16/01 | 43.52 | 0.00 | 54.72 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | <1.00 | -- |
| | 08/30/01[NP] | 40.20 | 0.00 | 58.04 | <50.0 | -- | -- | 1.73 | <0.500 | <0.500 | 1.17 | -- | 1.87 | -- |
| | 11/19/01 | 46.75 | 0.00 | 51.49 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | <1.00 | -- |
| | 05/04/02 | 28.46 | 0.00 | 69.78 | <50.0 | -- | -- | 0.748 | <0.500 | <0.500 | 1.08 | -- | 5.23 | -- |
| | 11/20/02 | 46.10 | 0.00 | 52.14 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | <1.00 | <1.00 |
| | 05/21/03[NP] | 35.60 | 0.00 | 62.64 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | <1.00 | <1.00 |
| | 11/14/03[NP c] | 46.05 | 0.00 | 52.19 | <50.0 | -- | -- | <1.00 | <1.00 | <1.00 | <1.50 | -- | <5.00 | <5.00 |
| | 5/13/04[NP] | 34.02 | 0.00 | 64.22 | <100 | -- | -- | 1.95 | <1.00 | <1.00 | <3.00 | -- | <5.00 | <5.00 |
| | 12/9/04 [NP] | 42.73 | 0.00 | 55.51 | <100 | -- | -- | <1.00 | <1.00 | <1.00 | <3.00 | -- | <10.0 | <10.0 |
| | 02/08/05 | 39.02 | 0.00 | 59.40 | <100 | -- | -- | <0.5 | <1.00 | <1.00 | <3.00 | -- | <10.0 | <10.0 |
| | 05/16/05 | 33.23 | 0.00 | 65.01 | <100 | -- | -- | <1 | <1 | <1 | <3 | <1 | <15 | <15 |
| | 08/18/05 | 82.10 | 0.00 | 16.14 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | <0.3 | <8.4 | -- |
| | 11/22/05 | 38.57 | 0.00 | 59.67 | <48 | -- | -- | 0.7 | <0.2 | <0.2 | 0.6 | -- | <8.4 | -- |
| | 03/01/06 | 32.80 | 0.00 | 65.44 | 100 | -- | -- | 8 | <0.7 | <0.8 | 1 | <0.5 | <8.4 | -- |
| | 05/30/06 | 32.49 | 0.00 | 65.75 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | -- | <6.9 | <6.9 |
| | 08/28/06 | -- | -- | -- | <48 | -- | -- | 4 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/14/06 | 41.00 | 0.00 | 57.24 | <48 | -- | -- | 4 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 02/21/07 | 31.14 | 0.00 | 67.10 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | **57.8** | **47.6** |
| | 05/22/07 | 27.90 | 0.00 | 70.34 | <50 | -- | -- | 1 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 08/20/07 | 35.30 | 0.00 | 62.94 | <50 | -- | -- | 2 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/19/07 | 38.67 | 0.00 | 59.57 | 700 | -- | -- | **230** | 15 | 49 | 7 | <0.5 | <6.9 | <6.9 |
| | 02/19/08 | 34.37 | 0.00 | 63.87 | 390 | -- | -- | <0.5 | 83 | 12 | 18 | 10 | 12.1 | <6.9 |
| 413.26 | 05/19/08 | 32.28 | 0.00 | 380.98 | **800** | -- | -- | **280** | 37 | 52 | 49 | <0.5 | **23.4** | <6.9 |
| | 08/18/08 | 36.15 | 0.00 | 377.11 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/18/08 | 38.74 | 0.00 | 374.52 | 790 | -- | -- | **290** | 17 | 35 | 64 | <0.5 | <6.9 | <6.9 |
| | 02/04/09 | 37.20 | 0.00 | 376.06 | 388 | <83 | <420 | **300** | 7.40 | 34 | 20 | <1 | 1.06 | -- |
| | 05/04/09 | 32.52 | 0.00 | 380.74 | <50.0 | <83 | <420 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | **20.8** | <1.0 |
| | 08/03/09 | 34.00 | 0.00 | 379.26 | **2,050** | -- | -- | **697** | 30.7 | 126 | 158 | <5.0 | 1.4 | 0.4 |
| | 11/03/09 | 38.52 | 0.00 | 374.74 | **1,660** 1n,Z2 | -- | -- | **260** | 8.6 | 100 | 118 | <1.0 | 2.2 | 0.11 |
| | 02/08/10 | 33.24 | 0.00 | 380.02 | 19.2J, 1n | -- | -- | **16.7** | <1.0 | 1.8 | 3.8 | <1.0 | **18.8** | <0.10 |
| | 05/03/10 | 28.13 | 0.00 | 385.13 | <50.0 | -- | -- | 1.1 | <1.0 | <1.0 | <3.0 | <1.0 | **24.9** | <0.10 |
| | 09/07/10 | 33.90 | 0.00 | 379.36 | **1,380** | -- | -- | **368** | 13.2 | 93.9 | 156 | <1.0 | 7.1 | <0.10 |
| | 12/01/10 | 35.78 | 0.00 | 377.48 | 522 | -- | -- | **277** M1 | 4.3 | 39.2 | 43.9 | <1.0 | 5.3 | 0.25 |
| | 02/10/11 | 27.49 | 0.00 | 385.77 | 399 | -- | -- | **123** | 2.0 | 21.9 | 27.4 | <1.0 | 1.6 | 0.14 |
| | 05/18/11 | 24.38 | 0.00 | 388.88 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | 1.4 | <0.10 |
| | 09/02/11 | 32.32 | 0.00 | 380.94 | 527 | -- | -- | **79.8** | 3.1 | 16.2 | 39.0 | -- | 8.1 | <0.10 |
| | 12/07/11 | 37.32 | 0.00 | 375.94 | **1,260** | -- | -- | **112** | 4.2 | 38.3 | 68.2 | <1.0 | 1.6 | 0.14 |
| | 02/23/12 | 38.05 | 0.00 | 375.21 | 187 | -- | -- | **37.2** | <1.0 | 8.6 | 8.4 | -- | 4.8 | -- |
| | 05/22/12 | 27.95 | 0.00 | 385.31 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | 0.86 | <0.10 |
| | 08/01/12 | 31.33 | 0.00 | 381.93 | <50.0 | -- | -- | 4.8 | <1.0 | <1.0 | <3.0 | -- | <0.10 | <0.10 |
| | 03/22/13 | 29.28 | 0.00 | 383.98 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | **31.2** | <10.0 |
| | 09/20/13 | 32.94 | 0.00 | 380.32 | **1,050** | -- | -- | **92.8** | 6 | 39 | 97 | -- | <10.0 | <10.0 |
| | 12/19/14 | 36.47 | 0.00 | 376.79 | 530 | <100 | <500 | **190** | 4.1 | 34 | 48 | -- | <5.0 | <5.0 |
| | 4/29/2015** | 27.39 | 0.00 | 385.87 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| | 07/23/15 | 33.54 | 0.00 | 379.72 | **3,760** | -- | -- | **252** | 19.0 | 164 | 303 | -- | -- | -- |
| | 10/15/15 | 38.12 | 0.00 | 375.14 | **2,560** | -- | -- | **197** | 13.8 | 125 | 243 | -- | -- | -- |
| | 10/07/16 | 37.00 | 0.00 | 376.26 | **1,140** | -- | -- | **115** | 7.0 | 49.5 | 77.0 | -- | <10.0 | <10.0 |
| | 09/20/17 | 33.16 | 0.00 | 380.10 | 739 | -- | -- | **128** | 8.1 | 44.6 | 56.1 | -- | <10.0 | <10.0 |
| | 09/04/18 | 35.34 | 0.00 | 377.92 | <19.6 | -- | -- | 0.34 J | <0.083 | 0.25J | <0.31 | -- | <2.0 | <2.0 |
| | | Well Decommissioned in Octoer 2018 | | | | | | | | | | | | |
| **GW7D** [1] | 11/11/94 | 77.35 | 0.00 | 19.82 | <50 | -- | -- | 1.3 | 2 | <1 | 2 | -- | <2 | -- |
| 97.17 | 02/17/95 | 77.30 | 0.00 | 19.87 | <50 | -- | -- | 0.7 | <1 | <1 | <1 | -- | <2 | -- |
| | 05/16/95 | 73.53 | 0.00 | 23.64 | <50 | -- | -- | 1.5 | <1 | <1 | <1 | -- | **19** | -- |
| | 08/09/95 | 75.50 | 0.00 | 21.67 | <50 | -- | -- | <4 | <1 | <1 | <1 | -- | 5 | -- |
| | 11/06/95 | 75.73 | 0.00 | 21.44 | <50 | -- | -- | **6.6** | <1 | <1 | <1 | -- | 12 | -- |
| | 02/13/96 | 75.58 | 0.00 | 21.59 | <50 | -- | -- | 1.1 | <1 | <1 | <1 | -- | <2 | -- |
| | 02/21/96 | 75.10 | 0.00 | 22.07 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/21/96 | 73.61 | 0.00 | 23.56 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/06/96 | 73.55 | 0.00 | 23.62 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/11/96 | 73.46 | 0.00 | 23.71 | <50 | -- | -- | 2.1 | <1 | <1 | <1 | -- | 7 | -- |
| | 09/24/96 | 72.84 | 0.00 | 24.33 | <50 | -- | -- | 2.6 | <1 | <1 | <1 | -- | 10 | -- |
| | 12/12/96 | 73.18 | 0.00 | 23.99 | <50 | -- | -- | 1.2 | <1 | <1 | <1 | -- | 9 | -- |
| | 03/24/97 | 68.85 | 0.00 | 28.32 | <50 | -- | -- | 0.8 | <1 | <1 | <1 | -- | 3 | -- |
| | 04/11/97 | 71.89 | 0.00 | 25.28 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/18/97 | 71.19 | 0.00 | 25.98 | <50 | -- | -- | 1.0 | <1 | <1 | <1 | -- | 10 | -- |
| | 08/25/97 | 70.32 | 0.00 | 26.85 | <50 | -- | -- | 1.1 | <1 | <1 | <1 | -- | 10 | -- |
| | 11/19/97[c] | 71.79 | 0.00 | 25.38 | <50 | -- | -- | <1 | <1 | <1 | <1 | -- | 14 | -- |
| | 02/12/98[NP] | 71.27 | 0.00 | 25.90 | <50 | -- | -- | <1 | <1 | <1 | <1 | -- | 2 | -- |
| | 05/14/98[NP] | 70.75 | 0.00 | 26.42[b] | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | 6 | -- |
| | 08/25/98 | 70.64 | 0.00 | 26.53[b] | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/13/98 | 71.30 | 0.00 | 25.87[b] | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/10/99 | 73.76 | 0.00 | 23.41[b] | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/28/99[NP] | 69.40 | 0.00 | 27.77[b] | <50 | -- | -- | 2.7 | <1 | <1 | <1 | -- | 8 | -- |
| | 08/18/99[NP] | 71.23 | 0.00 | 25.94[b] | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/11/99[NP] | 71.62 | 0.00 | 25.55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/09/00[NP] | 73.20 | 0.00 | 23.97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/24/00[NP] | 76.55 | 0.00 | 20.62 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | -- | -- |
| | 09/11/00 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/27/00 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/23/01 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/16/01 | 77.92 | 0.00 | 19.25 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | 7.14 | -- |
| | 08/30/01 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/19/01 | 79.60 | 0.00 | 17.57 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | <1.00 | -- |
| | 05/04/02 | 75.67 | 0.00 | 21.50 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | 3.21 | -- |
| | 11/20/02 | 76.20 | 0.00 | 20.97 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | 11.5 | <1.00 |
| | 05/21/03[NP] | 76.20 | 0.00 | 20.97 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | **19.0** | 13.0 |
| | 11/14/03[NP] | 76.22 | 0.00 | 20.95 | <50.0 | -- | -- | <1.00 | <1.00 | <1.00 | <1.50 | -- | <5.00 | <5.00 |
| | 5/13/04[NP] | 76.73 | 0.00 | 20.44 | <100 | -- | -- | <1.00 | <1.00 | <1.00 | <3.00 | -- | <5.00 | <5.00 |
| | 12/9/04 [NP] | 78.31 | 0.00 | 18.86 | <100 | -- | -- | <1.00 | <1.00 | <1.00 | <3.00 | -- | <10.0 | <10.0 |
| | 02/08/05 | 76.85 | 0.00 | 20.32 | <100 | -- | -- | <0.5 | <1.00 | <1.00 | <3.00 | -- | <10.0 | -- |

**TABLE 1**
**SUMMARY OF HISTORICAL GROUNDWATER GAUGING AND LABORATORY ANALYTICAL DATA**
Phillips 66 Facility No. 2701476 (AOC 2063)
12660 First Avenue South
Seattle, Washington

| Well ID TOC Elevation | Sample Date | DTW (feet) | LPH (feet) | GW Elev. (feet) | Total Petroleum Hydrocarbons TPH-G (µg/L) | TPH-D (µg/L) | TPH-O (µg/L) | Aromatic Hydrocarbons Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) | MTBE (µg/L) | Metals Total Lead (µg/L) | Dissolved Lead (µg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **MTCA Method A Cleanup Levels** | | | | | **1,000/800[a]** | **500** | **500** | **5** | **1,000** | **700** | **1,000** | **20** | **15** | **15** |
| | 05/16/05 | 77.07 | 0.00 | 20.10 | <100 | -- | -- | <1 | <1 | <1 | <3 | <1 | <15 | <15 |
| **GW7D** | 08/18/05 | 77.68 | 0.00 | 19.49 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | <0.3 | <8.4 | -- |
| (Cont) | 11/22/05 | 77.17 | 0.00 | 20.00 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | -- | <8.4 | -- |
| | 03/01/06 | 76.84 | 0.00 | 20.33 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <8.4 | -- |
| | 05/30/06 | 76.32 | 0.00 | 20.85 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | -- | 8.7 | <6.9 |
| | 08/28/06 | 75.71 | 0.00 | 21.46 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/14/06 | 76.22 | 0.00 | 20.95 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 02/21/07 | 75.58 | 0.00 | 21.59 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | **62.1** | 52 |
| | 05/22/07 | 74.70 | 0.00 | 22.47 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 08/20/07 | 74.05 | 0.00 | 23.12 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/19/07 | 74.91 | 0.00 | 22.26 | 65 | -- | -- | <0.5 | 2 | <0.8 | 1 | <0.5 | 12.7 | <6.9 |
| | 02/19/08 | 75.02 | 0.00 | 22.15 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | **24.6** | <6.9 |
| 412.23 | 05/19/08 | 75.12 | 0.00 | 337.11 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | **20.0** | <6.9 |
| | 08/18/08 | 75.37 | 0.00 | 336.86 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/18/08 | 75.85 | 0.00 | 336.38 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | 7.9 | <6.9 |
| | 02/04/09 | 76.11 | 0.00 | 336.12 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/05/09 | 76.35 | 0.00 | 335.88 | <50.0 | <83 | <420 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 6.3 | <1.0 |
| | 08/03/09 | 76.24 | 0.00 | 335.99 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/03/09 | 76.58 | 0.00 | 335.65 | Well gauged only this quarter. | | | | | | | | | |
| | 02/08/10 | 76.79 | 0.00 | 335.44 | Well gauged only this quarter. | | | | | | | | | |
| | 05/03/10 | 76.13 | 0.00 | 336.1 | Well gauged only this quarter. | | | | | | | | | |
| | 09/07/10 | 75.29 | 0.00 | 336.94 | Well gauged only this quarter. | | | | | | | | | |
| | 12/01/10 | 75.81 | 0.00 | 336.42 | Well gauged only this quarter. | | | | | | | | | |
| | 02/10/11 | 74.84 | 0.00 | 337.39 | Well gauged only this quarter. | | | | | | | | | |
| | 05/18/11 | 74.08 | 0.00 | 338.15 | Well gauged only this quarter. | | | | | | | | | |
| | 09/02/11 | 73.31 | 0.00 | 338.92 | Well gauged only this quarter. | | | | | | | | | |
| | 12/07/11 | 73.80 | 0.00 | 338.43 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | **23.3** | 0.23 |
| | 02/23/12 | 74.64 | 0.00 | 337.59 | Well gauged only this quarter. | | | | | | | | | |
| | 05/22/12 | 74.36 | 0.00 | 337.87 | Well gauged only this quarter. | | | | | | | | | |
| | 08/01/12 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 03/22/13 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/20/13 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/19/14 | NM | -- | -- | Well submerged under large surface puddle of water - not accessible. | | | | | | | | | |
| | 04/29/15 | 75.27 | -- | 336.96 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | **19.0** | <10.0 |
| | 07/23/15 | 74.80 | -- | 337.43 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | -- | -- |
| | 10/15/15 | 75.24 | -- | 336.99 | <250 | -- | -- | <0.5 | <0.5 | <0.5 | <1.0 | -- | -- | -- |
| | 10/07/16 | 73.80 | -- | 338.43 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | **21.6** | <10.0 |
| | 09/20/17 | 71.70 | -- | 340.53 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| | 09/05/18 | 72.98 | -- | 339.25 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | 2.7J | <2.0 |
| | 12/13/18 | 73.55 | -- | 338.68 | <19.6 | -- | -- | 4.4 | 1.7 | 0.31 J | <0.31 | -- | 11.6 | <2.0 |
| | 03/26/19 | 74.65 | -- | 337.58 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | 06/25/19 | 74.90 | -- | 337.33 | <38.3 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | 2.9J | <2.0 |
| **GW8S** | 12/11/18 | 35.35 | 0.00 | 378.42 | Insufficient water to sample | | | | | | | | | |
| 413.77 | 03/27/19 | 20.02 | 0.00 | 393.75 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | 06/26/19 | 21.92 | 0.00 | 391.85 | <38.3 | -- | -- | <0.10 | <0.83 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| **GW-8D [1]** | 11/11/94 | 79.12 | 0.00 | 19.70 | **88,000** | -- | -- | **17,000** | **18,000** | **1,000** | **7,000** | -- | 4 | -- |
| 98.82 | 02/17/95 | 79.04 | 0.00 | 19.78 | **11,000** | -- | -- | **20,000** | **22,000** | **1,650** | **9,200** | -- | 5 | -- |
| | 05/16/95 | 78.28 | 0.00 | 20.54 | **98,000** | -- | -- | **19,000** | **18,000** | **1,500** | **8,300** | -- | 7 | -- |
| | 08/09/95 | 77.57 | 0.00 | 21.25 | **95,000** | -- | -- | **21,000** | **19,000** | **1,400** | **7,400** | -- | 6 | -- |
| | 11/06/95 | 77.49 | 0.00 | 21.33 | **99,000** | -- | -- | **21,000** | **21,000** | **1,600** | **8,100** | -- | 4 | -- |
| | 02/13/96 | 77.27 | 0.00 | 21.55 | **110,000** | -- | -- | **25,000** | **28,000** | **2,000** | **10,000** | -- | 5 | -- |
| | 02/21/96 | 76.87 | 0.00 | 21.95 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/21/96 | 75.33 | 0.00 | 23.49 | **100,000** | -- | -- | **23,000** | **24,000** | **1,700** | **9,400** | -- | 2 | -- |
| | 06/06/96 | 75.13 | 0.00 | 23.69 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/11/96 | 75.17 | 0.00 | 23.65 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/24/96 | 74.60 | 0.00 | 24.22 | **92,000** | -- | -- | **18,000** | **18,000** | **1,500** | **7,700** | -- | 4 | -- |
| | 12/12/96 | 75.11 | 0.00 | 23.71 | **130,000** | -- | -- | **19,000** | **22,000** | **1,600** | **8,500** | -- | 4 | -- |
| | 03/24/97 | 74.04 | 0.00 | 24.78 | **73,000** | -- | -- | **14,000** | **18,000** | **1,400** | **7,400** | -- | 3 | -- |
| | 04/11/97 | 73.57 | 0.00 | 25.25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/18/97 | 73.38 | 0.00 | 25.44 | **90,000** | -- | -- | **20,000** | **23,000** | **1,500** | **8,200** | -- | 7 | -- |
| | 08/25/97 | 72.08 | 0.00 | 26.74 | **47,000** | -- | -- | **10,000** | **10,000** | **840** | **4,800** | -- | 7 | -- |
| | 11/19/97[*] | 72.91 | 0.00 | 25.91 | **39,000** | -- | -- | **8,000** | **7,600** | **760** | **12,000** | -- | **11** | -- |
| | 02/12/98[NP] | 73.04 | 0.00 | 25.78 | **6,600** | -- | -- | **920** | 420 | 120 | 350 | -- | <2 | -- |
| | 05/14/98[NP] | 72.40 | 0.00 | 26.42 | 640 | -- | -- | **200** | 92 | 24 | 110 | -- | 4 | -- |
| | 08/25/98[NP] | 64.50 | 0.00 | 34.32[b] | **4,200** | -- | -- | **150** | 850 | 34 | 820 | -- | 3 | -- |
| | 11/13/98[NP] | 73.98 | 0.00 | 24.84[b] | **1,500** | -- | -- | **38** | 68 | 2 | 460 | -- | 10 | -- |
| | 02/10/99 | 75.38 | 0.00 | 23.44[b] | 284 | -- | -- | **66.4** | 10.5 | 6.45 | 23.1 | -- | -- | -- |
| | 05/28/99[NP] | 64.90 | 0.00 | 33.92[b] | **17,000** | -- | -- | **230** | **1,200** | 100 | **3,400** | -- | 4 | -- |
| | 08/18/99[NP] | 72.90 | 0.00 | 25.92[b] | <50 | -- | -- | 0.7 | <1 | <1 | <1 | -- | -- | -- |
| | 11/11/99[NP] | 76.78 | 0.00 | 22.04 | <50.0 | -- | -- | 2.46 | <0.500 | 0.509 | 1.44 | -- | 1.06 | -- |
| | 02/09/00[NP] | 74.83 | 0.00 | 23.99 | <50 | -- | -- | 3.4 | <1 | <1 | <1 | -- | <2 | -- |
| | 05/24/00[NP] | 73.25 | 0.00 | 25.57 | **8,100** | -- | -- | **34.3** | 10.6 | <5.00 | **1,850** | -- | -- | -- |
| | 09/11/00[NP] | 67.00 | 0.00 | 31.82 | 69.2 | -- | -- | 0.503 | <0.500 | <0.500 | 6.87 | -- | -- | -- |
| | 11/27/00 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/23/01 | 73.69 | 0.00 | 25.13 | 62.1 | -- | -- | <0.500 | <0.500 | <0.500 | < 1.00 | -- | 2.03 | -- |
| | 05/16/01 | DRY | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 08/30/01[NP] | 78.15 | 0.00 | 20.67 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | 3.05 | -- | 1.50 | -- |
| | 11/19/01 | 78.87 | 0.00 | 19.95 | 99.1 | -- | -- | <0.500 | 2.47 | <0.500 | 25.6 | -- | <1.00 | -- |
| | 05/04/02 | 76.32 | 0.00 | 22.50 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | <1.00 | -- |
| | 11/20/02 | 77.19 | 0.00 | 21.63 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | <1.00 | <1.00 |
| | 05/21/03[NP] | 77.11 | 0.00 | 21.71 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | <1.00 | <1.00 |
| | 11/14/03[NP] | 77.69 | 0.00 | 21.14 | <50.0 | -- | -- | <1.00 | <1.00 | <1.00 | <1.50 | -- | <5.00 | <5.00 |
| | 5/13/04[NP] | 77.64 | 0.00 | 21.18 | <100 | -- | -- | <1.00 | <1.00 | <1.00 | <3.00 | -- | <5.00 | <5.00 |
| | 12/10/04 [NP] | 77.70 | 0.00 | 21.12 | <100 | -- | -- | <1.00 | <1.00 | <1.00 | <3.00 | -- | <10.0 | <10.0 |
| | 02/08/05 | 78.21 | 0.00 | 20.61 | <100 | -- | -- | <0.5 | <1.00 | <1.00 | <3.00 | -- | <10.0 | <10.0 |
| | 05/16/05 | 79.11 | 0.00 | 19.71 | <100 | -- | -- | <1 | <1 | <1 | <3 | <1 | <15 | <15 |
| | 08/18/05 | 79.44 | 0.00 | 19.38 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | <0.6 | <8.4 | -- |
| | 11/11/05 | 78.57 | 0.00 | 20.25 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | -- | <8.4 | -- |
| | 03/01/06 | 78.40 | 0.00 | 20.42 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <8.4 | -- |
| | 05/31/06 | 77.71 | 0.00 | 21.11 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | -- | <6.9 | <6.9 |
| | 08/28/06 | 77.20 | 0.00 | 21.62 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/14/06 | 78.50 | 0.00 | 20.32 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 02/21/07 | 77.15 | 0.00 | 21.67 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | **51.1** | **46.2** |
| | 05/22/07 | 76.32 | 0.00 | 22.50 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 08/20/07 | 75.73 | 0.00 | 23.09 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |

**TABLE 1**
**SUMMARY OF HISTORICAL GROUNDWATER GAUGING AND LABORATORY ANALYTICAL DATA**
Phillips 66 Facility No. 2701476 (AOC 2063)
12660 First Avenue South
Seattle, Washington

| Well ID TOC Elevation | Sample Date | | | | Total Petroleum Hydrocarbons | | | Aromatic Hydrocarbons | | | | | Metals | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DTW (feet) | LPH (feet) | GW Elev. (feet) | TPH-G (µg/L) | TPH-D (µg/L) | TPH-O (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) | MTBE (µg/L) | Total Lead (µg/L) | Dissolved Lead (µg/L) |
| **MTCA Method A Cleanup Levels** | | | | | **1,000/800[a]** | **500** | **500** | **5** | **1,000** | **700** | **1,000** | **20** | **15** | **15** |
| **GW8D** | 11/19/07 | 76.60 | 0.00 | 22.22 | 150 | -- | -- | 3 | 5 | 1 | 8 | <0.5 | <6.9 | <6.9 |
| (Cont) | 02/19/08 | 76.65 | 0.00 | 22.17 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | 7.7 | <6.9 |
| 413.79 | 05/19/08 | 76.76 | 0.00 | 337.03 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 08/18/08 | 77.09 | 0.00 | 336.70 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/17/08 | 77.50 | 0.00 | 336.29 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 02/04/09 | 77.75 | 0.00 | 336.04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/05/09 | 78.04 | 0.00 | 335.75 | <50.0 | <85 | <430 | <1.0 | <1.0 | <1.0 | 3.1 | <1.0 | 1.8 | <1.0 |
| | 08/03/09 | 77.93 | 0.00 | 335.86 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/03/09 | 78.20 | 0.00 | 335.59 | Well gauged only this quarter. | | | | | | | | | |
| | 02/08/10 | 78.40 | 0.00 | 335.39 | Well gauged only this quarter. | | | | | | | | | |
| | 05/03/10 | 77.79 | 0.00 | 336.00 | Well gauged only this quarter. | | | | | | | | | |
| | 09/07/10 | 76.95 | 0.00 | 336.84 | Well gauged only this quarter. | | | | | | | | | |
| | 12/01/10 | 77.46 | 0.00 | 336.33 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | 8.5 | 0.15 |
| | 02/10/11 | 74.16 | 0.00 | 339.63 | Well gauged only this quarter. | | | | | | | | | |
| | 05/18/11 | 75.58 | 0.00 | 338.21 | Well gauged only this quarter. | | | | | | | | | |
| | 09/02/11 | 74.90 | 0.00 | 338.89 | Well gauged only this quarter. | | | | | | | | | |
| | 12/07/11 | 75.47 | 0.00 | 338.32 | Well gauged only this quarter. | | | | | | | | | |
| | 02/23/12 | 76.29 | 0.00 | 337.50 | Well gauged only this quarter. | | | | | | | | | |
| | 05/22/12 | 76.72 | 0.00 | 337.07 | Well gauged only this quarter. | | | | | | | | | |
| | 08/01/12 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 03/22/13 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/20/13 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/18/14 | 77.11 | 0.00 | 336.68 | <100 | <100 | <500 | <0.50 | <0.50 | <0.50 | <0.50 | -- | <5.0 | <5.0 |
| | 04/29/15 | 76.89 | 0.00 | 336.90 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| | 07/23/15 | 76.46 | 0.00 | 337.33 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | -- | -- |
| | 10/15/15 | 76.91 | 0.00 | 336.88 | <250 | -- | -- | <0.5 | <0.5 | <0.5 | <1.0 | -- | -- | -- |
| | 09/28/16 | 75.30 | 0.00 | 338.49 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| | 09/20/17 | 73.40 | 0.00 | 340.39 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| | 09/05/18 | 74.62 | 0.00 | 339.17 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | 12/12/18 | 75.05 | 0.00 | 338.74 | <19.6 | -- | -- | <0.10 | <0.083 | 0.28J | <0.31 | -- | 2.2J | <2.0 |
| | 03/27/19 | 76.29 | 0.00 | 337.50 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | 06/26/19 | 76.42 | 0.00 | 337.37 | <38.3 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | | <2.0 | <2.0 |
| **GW9D** [1] | 11/11/94 | 79.83 | 0.00 | 19.74 | **93,000** | -- | -- | **6,600** | **18,000** | **1,400** | **9,300** | -- | <2 | -- |
| 99.57 | 02/17/95 | 79.79 | 0.00 | 19.78 | **87,000** | -- | -- | **9,100** | **17,000** | **1,330** | **7,900** | -- | 3 | -- |
| | 05/16/95 | 78.99 | 0.00 | 20.58 | **68,000** | -- | -- | **7,700** | **12,000** | **1,200** | **6,000** | -- | 3 | -- |
| | 08/09/95 | 78.32 | 0.00 | 21.25 | **88,000** | -- | -- | **12,000** | **18,000** | **1,200** | **7,100** | -- | 6 | -- |
| | 11/06/95 | 78.23 | 0.00 | 21.34 | **88,000** | -- | -- | **11,000** | **20,000** | **1,300** | **7,900** | -- | <2 | -- |
| | 02/13/96 | 78.00 | 0.00 | 21.57 | **69,000** | -- | -- | **11,000** | **16,000** | **1,300** | **6,300** | -- | 3 | -- |
| | 02/21/96 | 77.60 | 0.00 | 21.97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/21/96 | 76.05 | 0.00 | 23.52 | **76,000** | -- | -- | **13,000** | **20,000** | **1,500** | **7,500** | -- | 2 | -- |
| | 06/06/96 | 76.01 | 0.00 | 23.56 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/11/96 | 75.91 | 0.00 | 23.66 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/24/96 | 75.26 | 0.00 | 24.31 | **34,000** | -- | -- | **4,600** | **6,200** | 650 | **2,800** | -- | 6 | -- |
| | 12/12/96 | 75.77 | 0.00 | 23.80 | **100,000** | -- | -- | **11,000** | **18,000** | **1,700** | **8,400** | -- | 6 | -- |
| | 03/24/97 | 74.81 | 0.00 | 24.76 | **64,000** | -- | -- | **7,400** | **14,000** | **1,400** | **1,200** | -- | 10 | -- |
| | 04/11/97 | 74.32 | 0.00 | 25.25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/18/97 | 73.05 | 0.00 | 26.52 | **74,000** | -- | -- | **8,500** | **20,000** | **1,500** | **7,700** | -- | 8 | -- |
| | 08/25/97 | 72.87 | 0.00 | 26.70 | **47,000** | -- | -- | **4,000** | **11,000** | **940** | **4,600** | -- | 8 | -- |
| | 11/19/97* | 73.61 | 0.00 | 25.96 | **34,000** | -- | -- | **2,500** | **6,900** | **760** | **3,300** | -- | **27** | -- |
| | 02/12/98[NP] | 73.75 | 0.00 | 25.82 | 52 | -- | -- | 2 | 4 | 2 | 7 | -- | 3 | -- |
| | 05/14/98[NP] | 73.12 | 0.00 | 26.45 | <50 | -- | -- | <0.5 | <1 | <1 | 1 | -- | <2 | -- |
| | 08/25/98[NP] | 72.54 | 0.00 | 27.03 | **46,000** | -- | -- | **1,800** | **6,700** | 150 | **11,000** | -- | 6 | -- |
| | 11/13/98[NP] | 74.80 | 0.00 | 24.77 | 200 | -- | -- | **93** | 6 | 6 | 32 | -- | 2 | -- |
| | 02/10/99 | 76.08 | 0.00 | 23.49 | **3,250** | -- | -- | **647** | 215 | 112 | 482 | -- | -- | -- |
| | 05/28/99[NP] | 68.45 | 0.00 | 31.12 | **3,000** | -- | -- | **32** | 34 | 10 | 630 | -- | 9 | -- |
| | 08/18/99[NP] | 73.61 | 0.00 | 25.96 | <50 | -- | -- | 2.9 | <1 | <1 | <1 | -- | -- | -- |
| | 11/11/99[NP] | 77.38 | 0.00 | 22.19 | **6,440** | -- | -- | **2,510** | 129 | 625 | 841 | -- | 7.05 | -- |
| | 02/09/00[NP] | 75.54 | 0.00 | 24.03 | 320 | -- | -- | **34** | <0.5 | 0.67 | 0.74 | -- | <2 | -- |
| | 05/24/00[NP] | 75.90 | 0.00 | 23.67 | 98.0 | -- | -- | <1.25 | <0.550 | <0.500 | 3.11 | -- | -- | -- |
| | 09/11/00[NP] | 68.40 | 0.00 | 31.17 | **1,160** | -- | -- | **94.8** | 2.53 | 40.3 | 134 | -- | -- | -- |
| | 11/27/00[NP] | 76.41 | 0.00 | 23.16 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | 3.70 | -- |
| | 02/23/01 | 74.59 | 0.00 | 24.98 | 133 | -- | -- | 0.721 | < 0.500 | 3.34 | 3.07 | -- | 10.6 | -- |
| | 05/16/01 | 79.10 | 0.00 | 20.47 | <50.0 | -- | -- | 3.92 | < 0.500 | 1.18 | < 1.00 | -- | <1.00 | -- |
| | 08/30/01[NP] | 78.85 | 0.00 | 20.72 | 63.4 | -- | -- | **52.5** | < 0.500 | 2.39 | <1.00 | -- | 2.03 | -- |
| | 11/19/01 | 79.38 | 0.00 | 20.19 | <50.0 | -- | -- | 0.726 | <0.500 | <0.500 | <1.00 | -- | <1.00 | -- |
| | 05/04/02 | 78.05 | 0.00 | 21.52 | <50.0 | -- | -- | 0.670 | <0.500 | <0.500 | 1.31 | -- | 2.76 | -- |
| | 11/20/02 | 77.97 | 0.00 | 21.60 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | <1.00 | <1.00 |
| | 05/21/03[NP] | 78.09 | 0.00 | 21.48 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | <1.00 | <1.00 |
| | 11/14/03[NP] | 78.36 | 0.00 | 21.22 | <50.0 | -- | -- | <1.00 | <1.00 | <1.00 | <1.50 | -- | <5.00 | <5.00 |
| | 5/13/04[NP] | 78.40 | 0.00 | 21.17 | <100 | -- | -- | <1.00 | <1.00 | <1.00 | <3.00 | -- | <5.00 | <5.00 |
| | 12/10/04 [NP] | 78.48 | 0.00 | 21.09 | <100 | -- | -- | <1.00 | <1.00 | <1.00 | <3.00 | -- | <10.0 | <10.0 |
| | 02/08/05 | 78.85 | 0.00 | 20.72 | <100 | -- | -- | <0.5 | <1.00 | <1.00 | <3.00 | -- | <10.0 | <10.0 |
| | 05/16/05 | 79.71 | 0.00 | 19.86 | <100 | -- | -- | <1 | <1 | <1 | <3 | <1 | <15 | <15 |
| | 08/18/05 | 79.94 | 0.00 | 19.63 | <48 | -- | -- | 0.6 | <0.2 | <0.2 | <0.6 | <0.3 | <8.4 | -- |
| | 11/22/05 | 79.37 | 0.00 | 20.20 | <48 | -- | -- | 0.6 | <0.2 | <0.2 | <0.6 | -- | <8.4 | -- |
| | 03/01/06 | 79.12 | 0.00 | 20.45 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <8.4 | -- |
| | 05/31/06 | 78.42 | 0.00 | 21.15 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | -- | <6.9 | <6.9 |
| | 08/28/06 | 77.87 | 0.00 | 21.70 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/14/06 | 78.45 | 0.00 | 21.12 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 02/21/07 | 77.88 | 0.00 | 21.69 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | **52.9** | **49.5** |
| | 05/22/07 | 77.00 | 0.00 | 22.57 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 08/20/07 | 76.45 | 0.00 | 23.12 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/19/07 | Dry | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/19/08 | 77.37 | 0.00 | 22.20 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | 8.8 | <6.9 |
| 414.53 | 05/19/08 | 77.47 | 0.00 | 337.06 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 08/18/08 | 77.78 | -- | 336.75 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/17/08 | 78.20 | 0.00 | 336.33 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 02/04/09 | 78.50 | 0.00 | 336.03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/05/09 | 78.78 | 0.00 | 335.75 | <50.0 | <85 | <430 | <1.0 | 1.0 | <1.0 | 5.3 | <1.0 | 1.1 | <1.0 |
| | 08/03/09 | 78.65 | 0.00 | 335.88 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/03/09 | 78.92 | 0.00 | 335.61 | Well gauged only this quarter. | | | | | | | | | |
| | 02/08/10 | 79.11 | 0.00 | 335.42 | Well gauged only this quarter. | | | | | | | | | |
| | 05/03/10 | 78.52 | 0.00 | 336.01 | Well gauged only this quarter. | | | | | | | | | |
| | 09/07/10 | 77.70 | 0.00 | 336.83 | Well gauged only this quarter. | | | | | | | | | |
| | 12/01/10 | 78.15 | 0.00 | 336.38 | 671 | -- | -- | <1.0 | <1.0 | 9.3 | 47.2 | <1.0 | 1.9 | <0.10 |

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Phillips 66 Facility No. 2701476 (AOC 2063)
12660 First Avenue South
Seattle, Washington

| Well ID TOC Elevation | Sample Date | | | | Total Petroleum Hydrocarbons | | | Aromatic Hydrocarbons | | | | | Metals | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DTW (feet) | LPH (feet) | GW Elev. (feet) | TPH-G (µg/L) | TPH-D (µg/L) | TPH-O (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) | MTBE (µg/L) | Total Lead (µg/L) | Dissolved Lead (µg/L) |
| **MTCA Method A Cleanup Levels** | | | | | **1,000/800[a]** | **500** | **500** | **5** | **1,000** | **700** | **1,000** | **20** | **15** | **15** |
| | 02/10/11 | 77.80 | 0.00 | 336.73 | Well gauged only this quarter. | | | | | | | | | |
| **GW9D [1]** | 05/18/11 | 76.37 | 0.00 | 338.16 | Well gauged only this quarter. | | | | | | | | | |
| Cont. | 09/02/11 | 75.65 | 0.00 | 338.88 | Well gauged only this quarter. | | | | | | | | | |
| | 12/07/11 | 76.18 | 0.00 | 338.35 | Well gauged only this quarter. | | | | | | | | | |
| | 02/23/12 | 76.92 | 0.00 | 337.61 | Well gauged only this quarter. | | | | | | | | | |
| | 05/22/12 | 76.04 | 0.00 | 338.49 | Well gauged only this quarter. | | | | | | | | | |
| | 08/01/12 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 03/22/13 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/20/13 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/18/14 | 77.82 | -- | 336.71 | <100 | <100 | <500 | <0.50 | <0.50 | <0.50 | <0.50 | -- | <5.0 | <5.0 |
| | 04/29/15 | 77.57 | -- | 336.96 | 272 | -- | -- | <1.0 | <1.0 | <1.0 | 10.8 | -- | <10.0 | <10.0 |
| | 07/23/15 | 77.17 | -- | 337.36 | 148 | -- | -- | <1.0 | <1.0 | <1.0 | 4.9 | -- | -- | -- |
| | 10/15/15 | 78.23 | -- | 336.30 | <250 | -- | -- | <0.5 | <0.5 | <0.5 | 2.8 | -- | -- | -- |
| | 10/07/16 | 76.10 | -- | 338.43 | 130 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| | 09/20/17 | 74.09 | -- | 340.44 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| | 09/05/18 | 75.37 | -- | 339.16 | <19.6 | -- | -- | <0.10 | 0.17 J | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | 12/12/18 | 75.75 | -- | 338.78 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | 03/28/19 | 76.98 | -- | 337.55 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | 06/26/19 | 77.50 | -- | 337.03 | <38.3 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| **GW10S** | 12/13/18 | 22.10 | -- | 392.36 | <19.6 | -- | -- | 0.37 J | 0.32 J | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| 414.46 | 03/27/19 | 20.90 | -- | 393.56 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | 06/26/19 | 22.13 | -- | 392.33 | <38.3 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| **GW10D [1]** | 11/11/94 | 80.74 | 0.00 | 19.82 | 510 | -- | -- | **14.4** | 39 | 2 | 46 | -- | <2 | -- |
| 100.56 | 02/17/95 | 80.68 | 0.00 | 19.88 | **1,230** | -- | -- | **19.8** | 119 | 11 | 129 | -- | <2 | -- |
| | 05/16/95 | 79.89 | 0.00 | 20.67 | 810 | -- | -- | **19.2** | 94 | <1 | 97 | -- | <2 | -- |
| | 08/09/95 | 79.21 | 0.00 | 21.35 | 120 | -- | -- | 2.2 | 6 | <1 | 21 | -- | 2 | -- |
| | 11/06/95 | 79.10 | 0.00 | 21.46 | 290 | -- | -- | **5.9** | 21 | <1 | 46 | -- | 2 | -- |
| | 02/13/96 | 78.92 | 0.00 | 21.64 | **2,600** | -- | -- | **38** | 291 | 10 | 324 | -- | <2 | -- |
| | 02/21/96 | 78.48 | 0.00 | 22.08 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/21/96 | 77.00 | 0.00 | 23.56 | **1,260** | -- | -- | **28.9** | 121 | 8 | 190 | -- | <2 | -- |
| | 06/06/96 | 76.94 | 0.00 | 23.62 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/11/96 | 76.82 | 0.00 | 23.74 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/24/96 | 76.15 | 0.00 | 24.41 | <50 | -- | -- | 0.6 | <1 | <1 | 3 | -- | 4 | -- |
| | 12/12/96 | 76.63 | 0.00 | 23.93 | 558 | -- | -- | 4.9 | 14 | 5 | 61 | -- | <2 | -- |
| | 03/24/97 | 75.87 | 0.00 | 24.69 | **1,200** | -- | -- | 2.6 | 31 | 23 | 160 | -- | 8 | -- |
| | 04/11/97 | 75.29 | 0.00 | 25.27 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/18/97 | 73.98 | 0.00 | 26.58 | **3,110** | -- | -- | **15.7** | 133 | 68 | 434 | -- | 3 | -- |
| | 08/25/97 | 73.60 | 0.00 | 26.96 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | 3 | -- |
| | 11/19/97* | 74.52 | 0.00 | 26.04 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | **26** | -- |
| | 02/12/98[NP] | 74.61 | 0.00 | 25.95 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | 4 | -- |
| | 05/14/98[NP] | 73.74 | 0.00 | 26.82[b] | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | 4 | -- |
| | 08/25/98[NP] | 72.90 | 0.00 | 27.66[b] | **3,000** | -- | -- | **5.9** | 55 | 15 | 310 | -- | 2 | -- |
| | 11/13/98[NP] | 75.26 | 0.00 | 25.30[b] | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | <2 | -- |
| | 02/10/99 | 76.77 | 0.00 | 23.79[b] | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | -- | -- |
| | 05/28/99[NP] | 63.60 | 0.00 | 36.96[b] | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | 3 | -- |
| | 08/18/99[NP] | 74.17 | 0.00 | 26.39[b] | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | -- | -- |
| | 11/11/99[NP] | 61.05 | 0.00 | 39.51 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | <1.00 | -- |
| | 02/09/00[NP] | 76.11 | 0.00 | 24.45 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | <2 | -- |
| | 05/24/00[NP] | 75.15 | 0.00 | 25.41 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | -- | -- |
| | 09/11/00[NP] | 36.00 | 0.00 | 64.56 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | -- | -- |
| | 11/27/00 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/23/01 | 80.17 | 0.00 | 20.39 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | < 1.00 | -- |
| | 05/16/01 | 81.63 | 0.00 | 18.93 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | <1.00 | -- |
| | 08/30/01[NP] | 79.60 | 0.00 | 20.96 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | 1.07 | -- |
| | 11/19/01 | 80.85 | 0.00 | 19.71 | <50.0 | -- | -- | <0.500 | 0.873 | <0.500 | 1.03 | -- | <1.00 | -- |
| | 05/04/02 | 78.81 | 0.00 | 21.75 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | 1.84 | -- |
| | 11/20/02 | 78.60 | 0.00 | 21.96 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | <1.00 | <1.00 |
| | 05/21/03[NP] | 78.03 | 0.00 | 22.53 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | <1.00 | <1.00 |
| | 11/14/03[NP] | 80.91 | 0.00 | 19.65 | <50.0 | -- | -- | <1.00 | <1.00 | <1.00 | <1.50 | -- | <5.00 | <5.00 |
| | 5/13/04[NP] | 76.50 | 0.00 | 24.06 | <100 | -- | -- | <1.00 | <1.00 | <1.00 | <3.00 | -- | <5.00 | <5.00 |
| | 12/9/04 [NP] | 81.65 | 0.00 | 18.91 | <100 | -- | -- | <1.00 | <1.00 | <1.00 | <3.00 | -- | <10.0 | <10.0 |
| | 02/08/05 | 79.02 | 0.00 | 21.54 | <100 | -- | -- | <0.5 | <1.00 | <1.00 | <3.00 | -- | <10.0 | <10.0 |
| | 05/16/05 | 81.41 | 0.00 | 19.15 | <100 | -- | -- | <1 | <1 | <1 | <3 | <1 | <15 | <15 |
| | 08/18/05 | 81.98 | 0.00 | 18.58 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | <0.3 | <8.4 | -- |
| | 11/22/05 | 80.31 | 0.00 | 20.25 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | <0.3 | <8.4 | -- |
| | 03/01/06 | 80.03 | 0.00 | 20.53 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <8.4 | -- |
| | 05/30/06 | 79.46 | 0.00 | 21.10 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | -- | <6.9 | <6.9 |
| | 08/28/06 | 78.70 | 0.00 | 21.86 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/14/06 | 79.35 | 0.00 | 21.21 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 02/21/07 | 78.70 | 0.00 | 21.86 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | 55.8 | 53.3 |
| | 05/22/07 | 77.82 | 0.00 | 22.74 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 08/20/07 | 77.15 | 0.00 | 23.41 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/19/07 | 77.00 | 0.00 | 23.56 | 67 | -- | -- | <0.5 | 2 | <0.8 | 3 | <0.5 | <6.9 | <6.9 |
| | 02/19/08 | 78.12 | 0.00 | 22.44 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | 11.4 | <6.9 |
| 415.30 | 05/19/08 | 78.25 | 0.00 | 337.05 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 08/18/08 | 78.53 | 0.00 | 336.77 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/17/08 | 78.95 | 0.00 | 336.35 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 02/04/09 | 79.25 | 0.00 | 336.05 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/04/09 | 79.29 | 0.00 | 336.01 | <50.0 | <83 | <420 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 08/03/09 | 79.39 | 0.00 | 335.91 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/03/09 | 79.60 | 0.00 | 335.70 | Well gauged only this quarter. | | | | | | | | | |
| | 02/08/10 | 79.92 | 0.00 | 335.38 | Well gauged only this quarter. | | | | | | | | | |
| | 05/03/10 | 79.29 | 0.00 | 336.01 | Well gauged only this quarter. | | | | | | | | | |
| | 09/07/10 | 78.40 | 0.00 | 336.90 | Well gauged only this quarter. | | | | | | | | | |
| | 12/01/10 | 78.95 | 0.00 | 336.35 | Well gauged only this quarter. | | | | | | | | | |
| | 02/10/11 | 76.95 | 0.00 | 338.35 | Well gauged only this quarter. | | | | | | | | | |
| | 05/18/11 | 77.20 | 0.00 | 338.10 | Well gauged only this quarter. | | | | | | | | | |
| | 09/02/11 | 76.35 | 0.00 | 338.95 | Well gauged only this quarter. | | | | | | | | | |
| | 12/07/11 | 76.87 | 0.00 | 338.43 | Well gauged only this quarter. | | | | | | | | | |
| | 02/23/12 | 77.78 | 0.00 | 337.52 | Well gauged only this quarter. | | | | | | | | | |
| | 05/22/12 | 77.52 | 0.00 | 337.78 | Well gauged only this quarter. | | | | | | | | | |
| | 08/01/12 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 03/22/13 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/20/13 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/19/14 | 78.62 | -- | 336.68 | <100 | **560** | <500 | 0.51 | <0.50 | <0.50 | 1.0 | -- | <5.0 | <5.0 |

**TABLE 1**
**SUMMARY OF HISTORICAL GROUNDWATER GAUGING AND LABORATORY ANALYTICAL DATA**
Phillips 66 Facility No. 2701476 (AOC 2063)
12660 First Avenue South
Seattle, Washington

| Well ID TOC Elevation | Sample Date | | | | Total Petroleum Hydrocarbons | | | Aromatic Hydrocarbons | | | | | Metals | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DTW (feet) | LPH (feet) | GW Elev. (feet) | TPH-G (µg/L) | TPH-D (µg/L) | TPH-O (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) | MTBE (µg/L) | Total Lead (µg/L) | Dissolved Lead (µg/L) |
| **MTCA Method A Cleanup Levels** | | | | | **1,000/800[a]** | **500** | **500** | **5** | **1,000** | **700** | **1,000** | **20** | **15** | **15** |
| | 04/29/15 | 78.41 | -- | 336.89 | <100 | <92 | <230 | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| **GW10D** | 07/23/15 | 77.93 | -- | 337.37 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| (Cont) | 10/15/15 | 78.35 | -- | 336.95 | <250 | -- | -- | <0.5 | <0.5 | <0.5 | <1.0 | -- | -- | -- |
| | 09/27/16 | 76.80 | -- | 338.50 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| | 09/19/17 | 74.79 | -- | 340.51 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| | 09/04/18 | 76.06 | -- | 339.24 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | 12/13/18 | 76.60 | -- | 338.70 | <19.6 | -- | -- | 1.5 | 0.90 J | 0.18 J | <0.31 | -- | 2.9J | <2.0 |
| | 03/27/19 | 77.75 | -- | 337.55 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | 06/26/19 | 77.90 | -- | 337.40 | <38.3 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | 09/12/19 | 78.60 | -- | 336.70 | <38.3 | <75.3 | 205J | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | 12/12/19 | 79.00 | -- | 336.30 | <38.3 | <67.7 | <79.9 | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| **GW11D [1]** | 11/11/94 | 79.83 | 0.00 | 19.89 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | 2 | -- |
| 99.72 | 02/17/95 | 79.81 | 0.00 | 19.91 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | 5 | -- |
| | 05/16/95 | 79.01 | 0.00 | 20.71 | <50 | -- | -- | 1.5 | <1 | <1 | <1 | -- | 8 | -- |
| | 08/09/95 | 78.35 | 0.00 | 21.37 | <50 | -- | -- | 2.5 | <1 | <1 | <1 | -- | 4 | -- |
| | 11/06/95 | 78.20 | 0.00 | 21.52 | <50 | -- | -- | 0.7 | <1 | <1 | <1 | -- | 2 | -- |
| | 02/13/96 | 78.02 | 0.00 | 21.70 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | 2 | -- |
| | 02/21/96 | 77.55 | 0.00 | 22.17 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/21/96 | 76.09 | 0.00 | 23.63 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/06/96 | 76.03 | 0.00 | 23.69 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/11/96 | 75.92 | 0.00 | 23.80 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | 6 | -- |
| | 09/24/96 | 75.28 | 0.00 | 24.44 | <50 | -- | -- | <0.5 | <1 | <1 | 1 | -- | **25** | -- |
| | 12/12/96 | 75.80 | 0.00 | 23.92 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | 11 | -- |
| | 03/24/97 | 74.69 | 0.00 | 25.03 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | **29** | -- |
| | 04/11/97 | 74.34 | 0.00 | 25.38 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/18/97 | 73.11 | 0.00 | 26.61 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | **19** | -- |
| | 08/25/97 | 73.00 | 0.00 | 26.72 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | **19** | -- |
| | 11/19/97[*] | 73.61 | 0.00 | 26.11 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | **23** | -- |
| | 02/12/98[NP] | 73.78 | 0.00 | 25.94 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | 9 | -- |
| | 05/14/98[NP] | 73.17 | 0.00 | 26.55 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | <2 | -- |
| | 08/25/98 | 70.10 | 0.00 | 29.62 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/13/98 | 73.65 | 0.00 | 26.07 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/10/99 | 76.10 | 0.00 | 23.62 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/28/99[NP] | 64.90 | 0.00 | 34.82 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | **98** | -- |
| | 08/18/99[NP] | 73.88 | 0.00 | 25.84 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/11/99[NP] | 77.08 | 0.00 | 22.64 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/09/00[NP] | 75.61 | 0.00 | 24.11 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/24/00[NP] | 75.55 | 0.00 | 24.17 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | -- | -- |
| | 09/11/00 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/27/00 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/23/01 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/16/01[NP] | 80.33 | 0.00 | 19.39 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | <1.00 | -- |
| | 08/30/01 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/19/01 | 80.66 | 0.00 | 19.06 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | <1.00 | -- |
| | 05/04/02 | 78.07 | 0.00 | 21.65 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | 2.18 | -- |
| | 11/20/02 | 78.44 | 0.00 | 21.28 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | 1.54 | <1.00 |
| | 05/21/03[NP] | 78.07 | 0.00 | 21.65 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | 1.21 | <1.00 |
| | 11/14/03[NP] | 78.68 | 0.00 | 21.05 | <50.0 | -- | -- | <1.00 | <1.00 | <1.00 | <1.50 | -- | <5.00 | <5.00 |
| | 5/13/04[NP] | 78.57 | 0.00 | 21.15 | <100 | -- | -- | <1.00 | <1.00 | <1.00 | <3.00 | -- | <5.00 | <5.00 |
| | 12/9/04 [NP] | 79.91 | 0.00 | 19.81 | <100 | -- | -- | <1.00 | <1.00 | <1.00 | <3.00 | -- | <10.0 | <10.0 |
| | 02/08/05 | 79.61 | 0.00 | 20.11 | <100 | -- | -- | <0.5 | <1.00 | <1.00 | <3.00 | -- | <10.0 | -- |
| | 05/16/05 | 79.75 | 0.00 | 19.97 | <100 | -- | -- | <1 | <1 | <1 | <3 | <1 | <15 | <15 |
| | 08/18/05 | 80.32 | 0.00 | 19.40 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | <0.3 | <8.4 | -- |
| | 11/22/05 | 79.58 | 0.00 | 20.14 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | -- | <8.4 | -- |
| | 03/01/06 | 79.24 | 0.00 | 20.48 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <8.4 | -- |
| | 05/30/06 | 78.62 | 0.00 | 21.10 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | -- | <6.9 | <6.9 |
| | 08/28/06 | 78.00 | 0.00 | 21.72 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/14/06 | 78.54 | 0.00 | 21.18 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 02/21/07 | 77.95 | 0.00 | 21.77 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | 76.7 | 65.5 |
| | 05/22/07 | 77.05 | 0.00 | 22.67 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| **GW11D[1] DUP** | 05/22/07 | 77.05 | 0.00 | 22.67 | -- | -- | -- | -- | -- | -- | -- | -- | <6.9 | <6.9 |
| | 08/20/07 | 76.39 | 0.00 | 23.33 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/19/07 | 77.22 | 0.00 | 22.50 | 91 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 02/19/08 | 77.35 | 0.00 | 22.37 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 414.58 | 05/19/08 | 77.48 | 0.00 | 337.10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 08/18/08 | 77.68 | 0.00 | 336.90 | Well not sampled due to obstruction. | | | | | | | | | |
| | 11/17/08 | 78.19 | 0.00 | 336.39 | Well not sampled due to obstruction. | | | | | | | | | |
| | 02/04/09 | 78.45 | 0.00 | 336.13 | Well not sampled due to obstruction. | | | | | | | | | |
| | 05/04/09 | 78.54 | 0.00 | 336.04 | Well not sampled due to obstruction. | | | | | | | | | |
| | 08/03/09 | 78.60 | 0.00 | 335.98 | Well not sampled due to obstruction. | | | | | | | | | |
| | 11/03/09 | 78.91 | 0.00 | 335.67 | Well not sampled due to obstruction. | | | | | | | | | |
| | 02/08/10 | 79.15 | 0.00 | 335.43 | Well not sampled due to obstruction. | | | | | | | | | |
| | 05/03/10 | 78.52 | 0.00 | 336.06 | Well gauged only this quarter. | | | | | | | | | |
| | 09/07/10 | 77.65 | 0.00 | 336.93 | Well gauged only this quarter. | | | | | | | | | |
| | 12/01/10 | 78.18 | 0.00 | 336.40 | Well gauged only this quarter. | | | | | | | | | |
| | 02/10/11 | 75.79 | 0.00 | 338.79 | Well gauged only this quarter. | | | | | | | | | |
| | 05/18/11 | 76.45 | 0.00 | 338.13 | Well gauged only this quarter. | | | | | | | | | |
| | 09/02/11 | 75.52 | 0.00 | 339.06 | Well gauged only this quarter. | | | | | | | | | |
| | 12/07/11 | 76.16 | 0.00 | 338.42 | <50 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | 7.9 | 0.15 |
| | 02/23/12 | 77.00 | 0.00 | 337.58 | Well gauged only this quarter. | | | | | | | | | |
| | 05/22/12 | 76.72 | 0.00 | 337.86 | Well gauged only this quarter. | | | | | | | | | |
| | 08/01/12 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 03/22/13 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/20/13 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/19/14 | 77.83 | 0.00 | 336.75 | <100 | 110 | <500 | 1.3 | <0.50 | 0.92 | 2.3 | -- | <5.0 | <5.0 |
| | 04/29/15 | 77.64 | 0.00 | 336.94 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| | 07/23/15 | 77.14 | 0.00 | 337.44 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | -- | -- |
| | 10/15/15 | 77.56 | 0.00 | 337.02 | <250 | -- | -- | <0.5 | <0.5 | <0.5 | <1.0 | -- | -- | -- |
| | 09/27/16 | 75.90 | 0.00 | 338.68 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| | 09/19/17 | 74.00 | 0.00 | 340.58 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | 14.3 | <10.0 |
| | 09/04/18 | 75.28 | 0.00 | 339.30 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | 2.1J | <2.0 |
| | 12/11/18 | 75.85 | 0.00 | 338.73 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | 3.0J | <2.0 |
| | 03/26/19 | 76.98 | 0.00 | 337.60 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | 06/25/19 | 77.10 | -- | 337.48 | <38.3 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| **GW12D [1]** | 04/20/95 | -- | -- | -- | <50 | -- | -- | 0.6 | <1 | <1 | <1 | -- | 3 | -- |

**TABLE 1**
**SUMMARY OF HISTORICAL GROUNDWATER GAUGING AND LABORATORY ANALYTICAL DATA**
Phillips 66 Facility No. 2701476 (AOC 2063)
12660 First Avenue South
Seattle, Washington

| Well ID TOC Elevation | Sample Date | | | | Total Petroleum Hydrocarbons | | | Aromatic Hydrocarbons | | | | | Metals | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DTW (feet) | LPH (feet) | GW Elev. (feet) | TPH-G (µg/L) | TPH-D (µg/L) | TPH-O (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) | MTBE (µg/L) | Total Lead (µg/L) | Dissolved Lead (µg/L) |
| **MTCA Method A Cleanup Levels** | | | | | **1,000/800[a]** | **500** | **500** | **5** | **1,000** | **700** | **1,000** | **20** | **15** | **15** |
| 91.32 | 05/16/95 | 67.52 | 0.00 | 23.80 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | <2 | -- |
| | 08/09/95 | 67.18 | 0.00 | 24.14 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | <2 | -- |
| | 11/06/95 | 67.51 | 0.00 | 23.81 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | <2 | -- |
| | 02/13/96 | 67.35 | 0.00 | 23.97 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | <2 | -- |
| | 02/21/96 | 66.98 | 0.00 | 24.34 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **GW12D** | 05/21/96 | 65.17 | 0.00 | 26.15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| (cont) | 06/06/96 | 65.09 | 0.00 | 26.23 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/11/96 | 65.05 | 0.00 | 26.27 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | **23** | -- |
| | 09/24/96 | 65.35 | 0.00 | 25.97 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | 7 | -- |
| | 12/12/96 | 64.97 | 0.00 | 26.35 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | **17** | -- |
| | 03/24/97 | 63.86 | 0.00 | 27.46 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | 7 | -- |
| | 04/11/97 | 63.03 | 0.00 | 28.29 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/18/97 | 62.12 | 0.00 | 29.20 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | 11 | -- |
| | 08/25/97 | 62.24 | 0.00 | 29.08 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | 11 | -- |
| | 11/19/97 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/12/98[NP] | 62.50 | 0.00 | 28.82 | <50 | -- | -- | <0.5 | <1 | <1 | 1 | -- | 10 | -- |
| | 05/14/98[NP] | 62.10 | 0.00 | 29.22 | <50 | -- | -- | <0.5 | <1 | <1 | 1 | -- | 6 | -- |
| | 08/25/98 | 63.19 | 0.00 | 28.13 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/13/98 | 64.60 | 0.00 | 26.72 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/10/99 | 65.13 | 0.00 | 26.19 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/28/99[NP] | 61.84 | 0.00 | 29.48 | <50 | -- | -- | <0.5 | <1 | <1 | <1 | -- | <2 | -- |
| | 08/18/99[NP] | 62.92 | 0.00 | 28.40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/11/99[NP] | 64.40 | 0.00 | 26.92 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/09/00[NP] | 64.98 | 0.00 | 26.34 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/24/00[NP] | 63.14 | 0.00 | 28.18 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | -- | -- |
| | 09/11/00 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/27/00 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 02/23/01 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/16/01[NP] | 66.70 | 0.00 | 24.62 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | 4.41 | -- |
| | 08/30/01 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/19/01 | 67.40 | 0.00 | 23.92 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | 1.01 | -- | 9.34 | -- |
| | 05/04/02 | 66.32 | 0.00 | 25.00 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | 5.87 | -- |
| | 11/20/02 | 66.52 | 0.00 | 24.80 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | 1.47 | <1.00 |
| | 05/21/03[NP] | 66.65 | 0.00 | 24.67 | <50.0 | -- | -- | <0.500 | <0.500 | <0.500 | <1.00 | -- | 1.96 | <1.00 |
| | 11/14/03[NP] | 64.91 | 0.00 | 26.42 | <50.0 | -- | -- | <1.00 | <1.00 | <1.00 | <1.50 | -- | <5.00 | <5.00 |
| | 5/13/04[NP] | 64.80 | 0.00 | 26.52 | <100 | -- | -- | <1.00 | <1.00 | <1.00 | <3.00 | -- | <5.00 | <5.00 |
| | 12/10/04 [NP] | 67.05 | 0.00 | 24.27 | <100 | -- | -- | <1.00 | <1.00 | <1.00 | <3.00 | -- | **15.5** | <10.0 |
| | 02/08/05 | 67.31 | 0.00 | 24.01 | <100 | -- | -- | <0.5 | <1.00 | <1.00 | <3.00 | -- | <10.0 | <10.0 |
| | 05/16/05 | 67.05 | 0.00 | 24.27 | <100 | -- | -- | <1 | <1 | <1 | <3 | <1 | <15 | <15 |
| | 08/18/05 | 66.87 | 0.00 | 24.45 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | <0.3 | <8.4 | -- |
| | 11/22/05 | 67.43 | 0.00 | 23.89 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | -- | <8.4 | -- |
| | 03/01/06 | 66.90 | 0.00 | 24.42 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <8.4 | -- |
| | 05/31/06 | 66.35 | 0.00 | 24.97 | <48 | -- | -- | <0.2 | <0.2 | <0.2 | <0.6 | -- | <6.9 | <6.9 |
| | 08/28/06 | 66.07 | 0.00 | 25.25 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/14/06 | 78.00 | 0.00 | 13.32 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 02/21/07 | 65.91 | 0.00 | 25.41 | <48 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | 76.5 | 65.4 |
| | 05/22/07 | 66.08 | 0.00 | 25.24 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | 12 | <6.9 |
| | 08/20/07 | 64.97 | 0.00 | 26.35 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/19/07 | 69.95 | 0.00 | 21.37 | <50 | -- | -- | <0.5 | 0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 02/19/08 | 65.58 | 0.00 | 25.74 | <50 | -- | -- | <0.5 | 0.7 | <0.8 | <0.8 | <0.5 | **19** | <6.9 |
| 406.56 | 05/19/08 | 65.45 | 0.00 | 341.11 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 08/18/08 | 65.88 | 0.00 | 340.68 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 11/17/08 | 66.40 | 0.00 | 340.16 | <50 | -- | -- | <0.5 | <0.7 | <0.8 | <0.8 | <0.5 | <6.9 | <6.9 |
| | 02/04/09 | Unable to locate well | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 05/05/09 | 67.12 | 0.00 | 339.44 | <50.0 | <83 | <420 | <1.0 | <1.0 | <1.0 | 2.4 | <1.0 | 3.7 | <1.0 |
| | 08/03/09 | 64.60 | 0.00 | 341.96 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 11/03/09 | 66.80 | 0.00 | 339.76 | Well gauged only this quarter. | | | | | | | | | |
| | 02/08/10 | 66.85 | 0.00 | 339.71 | Well gauged only this quarter. | | | | | | | | | |
| | 05/03/10 | 65.81 | 0.00 | 340.75 | Well gauged only this quarter. | | | | | | | | | |
| | 09/07/10 | 65.45 | 0.00 | 341.11 | Well gauged only this quarter. | | | | | | | | | |
| | 12/01/10 | 66.03 | 0.00 | 340.53 | <50.0 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | <1.0 | 8.3 | 0.50 |
| | 02/10/11 | 65.39 | 0.00 | 341.17 | Well gauged only this quarter. | | | | | | | | | |
| | 05/18/11 | 64.83 | 0.00 | 341.73 | Well gauged only this quarter. | | | | | | | | | |
| | 09/02/11 | 64.90 | 0.00 | 341.66 | Well gauged only this quarter. | | | | | | | | | |
| | 12/07/11 | 65.43 | 0.00 | 341.13 | Well gauged only this quarter. | | | | | | | | | |
| | 02/23/12 | 66.18 | 0.00 | 340.38 | Well gauged only this quarter. | | | | | | | | | |
| | 05/22/12 | 63.55 | 0.00 | 343.01 | Well gauged only this quarter. | | | | | | | | | |
| | 08/01/12 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 03/22/13 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/20/13 | NM | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/18/14 | 64.45 | -- | 342.11 | <100 | <100 | <500 | <0.50 | <0.50 | <0.50 | <0.50 | -- | <5.0 | <5.0 |
| | 04/29/15 | 63.40 | -- | 343.16 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| | 07/23/15 | 63.75 | -- | 342.81 | <100 | -- | -- | <1.0 | <1.0 | 1.5 | <3.0 | -- | -- | -- |
| | 10/15/15 | 65.62 | -- | 340.94 | Well gauged only this quarter. | | | | | | | | | |
| | 10/07/16 | 64.50 | -- | 342.06 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| | 09/19/17 | 62.35 | -- | 344.21 | <100 | -- | -- | <1.0 | <1.0 | <1.0 | <3.0 | -- | <10.0 | <10.0 |
| | 09/05/18 | 63.65 | -- | 342.91 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | 12/12/18 | 64.28 | -- | 342.28 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | 2.8J | <2.0 |
| | 03/28/19 | 64.94 | | 341.62 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | 06/26/19 | 64.90 | | 341.66 | <38.3 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | 3.6J | <2.0 |
| **GW13S** | 12/13/18 | 38.85 | -- | 374.28 | **9,380** | -- | -- | **41.3** | 14 | 230.0 | 882 | -- | <2.0 | <2.0 |
| 413.13 | 03/28/19 | 32.70 | -- | 380.43 | **2,780** | -- | -- | **12.3** | 4.1 | 69.5 | 194 | -- | <2.0 | <2.0 |
| | 06/28/19 | 34.46 | -- | 378.67 | 712 | -- | -- | 0.55J | 0.20J | 8.3 | 46.5 | -- | 3.8J | <2.0 |
| | 09/12/19 | 38.25 | | 374.88 | **5,740** | -- | -- | **6.9** | 1.8 | 99.1 | 190 | -- | <2.0 | <2.0 |
| | 12/11/19 | 40.00 | -- | 375.30 | **6,150** | -- | -- | **34.2** | 9.9 | 144 | 257 | -- | 2.3J | -- |
| **GW13D** | 12/13/18 | 74.30 | -- | 338.64 | <19.6 | -- | -- | 0.98 J | 0.74 J | 0.15 J | <0.31 | -- | 10.00 | <2.0 |
| 412.94 | 03/26/19 | 75.34 | -- | 337.60 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | 06/27/19 | 75.50 | -- | 337.44 | <38.3 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | 2.5J | <2.0 |
| | 09/12/19 | 76.17 | -- | 336.77 | <38.3 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | 4.2J | <2.0 |
| | 12/11/19 | 76.65 | -- | 338.65 | 66.9J | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | 5.0J | <2.0 |
| **GW14S** | 12/11/18 | 41.05 | -- | 372.73 | **113,000** | -- | -- | **13.8** | **6,440** | **2,790** | **17,600** | -- | 5.0 J | 3.0 J |
| 413.78 | 03/28/19 | 38.82 | -- | 374.96 | **53,300** | -- | -- | **9.7J** | **3,470** | **1,870** | **9,300** | -- | <2.0 | 2.2J |
| | 06/28/19 | 40.30 | -- | 373.48 | **96,200** | -- | -- | **21.6** | **5,350** | **2,610** | **13,300** | -- | 4.2J | <2.0 |
| | 09/12/19 | 44.73 | | 369.05 | **93,400** | -- | -- | **356** | **3,660** | **2,840** | **13,700** | -- | 11.1 | <2.0 |
| | 12/12/19 | 45.00 | -- | 370.30 | **114,000** | -- | -- | **693** | **3,900** | **2,430** | **11,400** | -- | 2.5J | 2.2J |

**TABLE 1**
**SUMMARY OF HISTORICAL GROUNDWATER GAUGING AND LABORATORY ANALYTICAL DATA**
Phillips 66 Facility No. 2701476 (AOC 2063)
12660 First Avenue South
Seattle, Washington

| Well ID TOC Elevation | Sample Date | | | | Total Petroleum Hydrocarbons | | | Aromatic Hydrocarbons | | | | | Metals | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DTW (feet) | LPH (feet) | GW Elev. (feet) | TPH-G (µg/L) | TPH-D (µg/L) | TPH-O (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) | MTBE (µg/L) | Total Lead (µg/L) | Dissolved Lead (µg/L) |
| **MTCA Method A Cleanup Levels** | | | | | **1,000/800[a]** | **500** | **500** | **5** | **1,000** | **700** | **1,000** | **20** | **15** | **15** |
| **GW14D** | 12/13/18 | 75.00 | -- | 338.72 | <19.6 | -- | -- | **12** | 0.40 J | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| 413.72 | 03/30/19 | 76.12 | -- | 337.60 | 502 | -- | -- | **580** | 1.5 | 34.4 | 3.5 | -- | <2.0 | <2.0 |
| | 06/28/19 | 76.32 | -- | 337.40 | 604 | -- | -- | **956** | 7.5 | 60.0 | 19.2 | -- | <2.0 | <2.0 |
| | 09/12/19 | 76.82 | -- | 336.90 | 402 | -- | -- | **671** | 3.0 J | 23.1 | <1.5 | -- | <2.0 | <2.0 |
| | 12/12/19 | 77.30 | -- | 338.00 | 39.9J | -- | -- | 1.5 | 0.16J | 0.15J | <0.31 | -- | 4.4J | <2.0 |
| **GW15S** | 12/11/18 | 39.30 | -- | 374.76 | Insufficient Water to Sample | | | | | | | | | |
| 414.06 | 03/30/19 | 32.69 | -- | 381.37 | 398 | -- | -- | 1.0J | 0.23J | 10.8 | 26.6 | -- | <2.0 | <2.0 |
| | 06/25/19 | 34.67 | -- | 379.39 | **2,670** | -- | -- | **7.4** | 6.9 | 52.5 | 281 | -- | <2.0 | <2.0 |
| | 09/12/19 | 38.63 | -- | 375.43 | **987** | -- | -- | 0.50 J | 0.81 J | 9.8 | 30.4 | -- | <2.0 | <2.0 |
| | 12/11/19 | 40.42 | -- | 374.88 | 470 | -- | -- | 0.65J | 1.1 | 12.0 | 17.6 | -- | <2.0 | -- |
| **GW15D** | 12/13/18 | 56.00 | -- | 358.01 | <19.6 | -- | -- | 1.0 | 0.66 J | 0.27 J | <0.31 | -- | 8.1 J | <2.0 |
| 414.01 | 03/26/19 | 52.60 | -- | 361.41 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | 06/25/19 | 52.40 | -- | 361.61 | <38.3 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | 09/12/19 | 54.60 | -- | 359.41 | <38.3 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | 12/11/19 | 57.35 | -- | 357.95 | 61.8J | -- | -- | <0.10 | 0.16J | 0.28J | <0.31 | -- | 2.4J | -- |
| **GW16S** | 12/11/18 | 48.50 | -- | 366.94 | Insufficient Water to Sample | | | | | | | | | |
| 415.44 | 03/30/19 | 42.69 | -- | 372.75 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | 06/27/19 | 43.56 | -- | 371.88 | <38.3 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| **GW16D** | 12/13/18 | 76.55 | -- | 338.69 | <19.6 | -- | -- | 0.59 J | 0.44 J | 0.17 J | <0.31 | -- | 6.7 J | <2.0 |
| 415.24 | 03/27/19 | 77.64 | -- | 337.60 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | | <2.0 | <2.0 |
| | 06/27/19 | 77.78 | -- | 337.46 | <38.3 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | | <2.0 | <2.0 |
| **GW17S** | 12/11/18 | 49.30 | -- | 365.54 | Insufficient Water to Sample | | | | | | | | | |
| 414.84 | 03/30/19 | 48.00 | -- | 366.84 | <19.6 | -- | -- | 0.29 J | 0.094 J | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| | 06/27/19 | 47.00 | -- | 367.84 | <38.3 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| **GW17D** | 02/27/00 | 76.08 | -- | 338.99 | <19.6 | -- | -- | 0.50 J | 0.38 J | <0.14 | <0.31 | -- | 2.8 J | 2.0 J |
| 415.07 | 03/30/19 | 77.15 | -- | 337.92 | <19.6 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | | 2.9J | <2.0 |
| | 06/27/19 | 77.35 | -- | 337.72 | <38.3 | -- | -- | <0.10 | <0.083 | <0.14 | <0.31 | | 2.8J | <2.0 |
| **GW18S** | 12/11/18 | 48.38 | -- | 365.93 | Insufficient Water to Sample | | | | | | | | | |
| 414.31 | 03/30/19 | Dry | -- | -- | Insufficient Water to Sample | | | | | | | | | |
| | 06/25/19 | 48.18 | -- | 366.13 | Insufficient Water to Sample | | | | | | | | | |
| | 09/12/19 | 48.50 | -- | 365.81 | Insufficient Water to Sample | | | | | | | | | |
| | 12/12/19 | 48.30 | -- | 366.01 | Insufficient Water to Sample | | | | | | | | | |
| **GW18D** | 12/11/18 | 75.45 | -- | 338.73 | <19.6 | -- | -- | <0.10 | 0.093 J | <0.14 | <0.31 | -- | <2.0 | <2.0 |
| 414.18 | 03/27/19 | 76.50 | -- | 337.68 | **1,270** | -- | -- | **558** | 3.8 | 45.0 | 109 | -- | 4.9J | <2.0 |
| | 06/28/19 | 76.60 | -- | 337.58 | 241 | -- | -- | **62.3** | 1.2J | 7.3 | <1.5 | -- | <2.0 | <2.0 |
| | 09/12/19 | 77.28 | -- | 336.90 | <38.3 | -- | -- | 1.8 | <0.083 | <0.14 | <0.31 | -- | 5.4J | <2.0 |
| | 12/12/19 | 77.70 | -- | 337.60 | <38.3 | -- | -- | 0.32J | <0.083 | <0.14 | <0.31 | -- | 3.4J | -- |

EXPLANATION:

All concentrations are in µg/L (ppb).

Wellhead elevations were taken from prior consultant's reports

DTW = Depth to water in feet below top of casing

LPH = Liquid-phase hydrocarbon thickness in feet

GW Elev. = Groundwater elevation in feet relative to top of casing elevations

Groundwater elevations were corrected for LPH using a specific gravity of 0.75.

TPH-G = Total Petroleum Hydrocarbons as gasoline by Ecology Method NWTPH-Gx

TPH-D = Total Petroleum Hydrocarbons as diesel and oil by Ecology Method NWTPH-Dx

Prior to 5/18/11, BTEX Analyzed by EPA Method 8021B.

After 5/18/11, BTEX Analyzed by EPA Method 5030B/8260.

Total Pb = Total lead by EPA Method 6020

Diss Pb = Dissolved lead by EPA Method 6020

Prior to December 20, 2011, 1,2-DCA = 1,2-Dichloroethane; PCE = Tetrachloroethene; TCE = Trichloroethene; 1,1-DCE = 1,1 Dichloroethene; 1,2-DCE = 1,2 Dichloroethene; 1,2-DCP = 1,2 Dichloropropane analyzed by EPA Method 8260.

Prior to December 20, 2011, EDB (1,2-Dibromoethane) analyzed by EPA Method 8011.

After December 20, 2011, 1,2-Dichloroethane (1,2-DCA); Tetrachloroethene (PCE); Trichloroethene (TCE); 1,1 Dichloroethene (1,1-DCE); 1,2 Dichloroethene (1,2-DCE); 1,2 Dichloropropane (1,2-DCP) and 1,2-Dibromoethane (EDB) analyzed by EPA Method 8260.

1n = Sample was evaluated to the MDL.; 2n = Diluted analysis conducted in excess of EPA method holding time; 4n = Sample was reanalyzed 3 days outside of holding time due to carryover.

J = Estimated concentration above the adjusted method deltection limit and below the adjusted reporting limit.

M1 = Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Z2 = Analyte present in the associated method blank above the detection limit.

Prior to second quarter 2008, monitoring wells surveyed to relative elevations. Wells were surveyed relative to sea level during the second quarter of 2008.

[1] = For wells GW7D through GW12D: Well designations changed from GW-7 through GW-12 respectively to reflect that the wells are designated as deep water bearing zone wells)

< = Less than the stated laboratory reporting limit

NM = Not Measured; -- = Not Analyzed or Sampled

[a] Concentration levels stated by MTCA Method A for TPH-G are

1,000 µg/L when no benzene is present and 800 µg/L when benzene is present.

[b] Approximated due to wellhead modification

[c] Samples collected from stub-ups inside remediation compound

[d] Well contained insufficient water to sample, labeled dry when unable to pull any water from well.

[NP] Not Purged

NA = Not established

Data collected before May 18, 2011 was obtained from prior consultants.

* DTW measurements collected 1 day prior to sampling

** Analytical results are anomalous compared to historical data. Cardno ATC suspects that sample ID's "GW-5" and "GW-6" may have been switched.

# APPENDIX A

# LABORATORY ANALYTICAL DATA REPORT AND CHAIN OF CUSTODY DOCUMENT

**Pace Analytical Services, LLC**
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

December 24, 2019

Elisabeth Silver
ATC Group Services LLC
6347 Seaview Ave NW
Seattle, WA 98107

RE: Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

Dear Elisabeth Silver:
Enclosed are the analytical results for sample(s) received by the laboratory on December 14, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jennifer Gross
jennifer.gross@pacelabs.com
(206)957-2426
Project Manager

Enclosures

**Pace Analytical Services, LLC**
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## CERTIFICATIONS

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

**Pace Analytical Services Minneapolis**

A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #: MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Massachusetts DWP Certification #: via MN 027-053-137
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Certifcation #: via MN 027-053-137
Minnesota Petrofund Certification #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01

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## SAMPLE SUMMARY

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **10502680001** | **GW-13D** | Water | 12/11/19 11:15 | 12/14/19 10:00 |
| **10502680002** | **GW-13S** | Water | 12/11/19 12:15 | 12/14/19 10:00 |
| **10502680003** | **GW-15D** | Water | 12/11/19 14:15 | 12/14/19 10:00 |
| **10502680004** | **GW-15S** | Water | 12/11/19 15:00 | 12/14/19 10:00 |
| **10502680005** | **GW-18D** | Water | 12/11/19 16:15 | 12/14/19 10:00 |
| **10502680006** | **GW-10D** | Water | 12/11/19 10:55 | 12/14/19 10:00 |
| **10502680007** | **GW-14D** | Water | 12/11/19 12:15 | 12/14/19 10:00 |
| **10502680008** | **GW-14S** | Water | 12/11/19 13:20 | 12/14/19 10:00 |
| **10502680009** | **Trip Blank** | Water | 12/11/19 13:20 | 12/14/19 10:00 |

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## SAMPLE ANALYTE COUNT

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **10502680001** | **GW-13D** | NWTPH-Gx | MJD | 2 | PASI-M |
| | | EPA 6010D | DM | 1 | PASI-M |
| | | EPA 6010D | IP | 1 | PASI-M |
| | | EPA 8260B | MM3 | 7 | PASI-M |
| **10502680002** | **GW-13S** | NWTPH-Gx | MJD | 2 | PASI-M |
| | | EPA 6010D | DM | 1 | PASI-M |
| | | EPA 8260B | MM3 | 7 | PASI-M |
| **10502680003** | **GW-15D** | NWTPH-Gx | MJD | 2 | PASI-M |
| | | EPA 6010D | DM | 1 | PASI-M |
| | | EPA 8260B | MM3 | 7 | PASI-M |
| **10502680004** | **GW-15S** | NWTPH-Gx | MJD | 2 | PASI-M |
| | | EPA 6010D | DM | 1 | PASI-M |
| | | EPA 8260B | MM3 | 7 | PASI-M |
| **10502680005** | **GW-18D** | NWTPH-Gx | MJD | 2 | PASI-M |
| | | EPA 6010D | DM | 1 | PASI-M |
| | | EPA 8260B | MM3 | 7 | PASI-M |
| **10502680006** | **GW-10D** | NWTPH-Dx | EC2 | 4 | PASI-M |
| | | NWTPH-Gx | MJD | 2 | PASI-M |
| | | EPA 6010D | DM | 1 | PASI-M |
| | | EPA 6010D | IP | 1 | PASI-M |
| | | EPA 8260B | MM3 | 7 | PASI-M |
| **10502680007** | **GW-14D** | NWTPH-Gx | MJD | 2 | PASI-M |
| | | EPA 6010D | DM | 1 | PASI-M |
| | | EPA 6010D | IP | 1 | PASI-M |
| | | EPA 8260B | ML4 | 7 | PASI-M |
| **10502680008** | **GW-14S** | NWTPH-Gx | MJD | 2 | PASI-M |
| | | EPA 6010D | DM | 1 | PASI-M |
| | | EPA 6010D | IP | 1 | PASI-M |
| | | EPA 8260B | MM3 | 7 | PASI-M |
| **10502680009** | **Trip Blank** | NWTPH-Gx | MJD | 2 | PASI-M |
| | | EPA 8260B | MM3 | 7 | PASI-M |

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## ANALYTICAL RESULTS

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

**Sample: GW-13D** **Lab ID: 10502680001** Collected: 12/11/19 11:15 Received: 12/14/19 10:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-Gx GCV** | Analytical Method: NWTPH-Gx | | | | | | | | |
| TPH as Gas | **66.9J** | ug/L | 100 | 38.3 | 1 | | 12/18/19 19:24 | | |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 98 | %. | 50-150 | | 1 | | 12/18/19 19:24 | 98-08-8 | |
| **6010D MET ICP** | Analytical Method: EPA 6010D Preparation Method: EPA 3010 | | | | | | | | |
| Lead | **5.0J** | ug/L | 10.0 | 2.0 | 1 | 12/16/19 12:19 | 12/18/19 14:40 | 7439-92-1 | |
| **6010D MET ICP, Dissolved** | Analytical Method: EPA 6010D Preparation Method: EPA 3010 | | | | | | | | |
| Lead, Dissolved | **<2.0** | ug/L | 10.0 | 2.0 | 1 | 12/20/19 13:30 | 12/22/19 10:41 | 7439-92-1 | |
| **8260B MSV UST** | Analytical Method: EPA 8260B | | | | | | | | |
| Benzene | **<0.10** | ug/L | 1.0 | 0.10 | 1 | | 12/22/19 18:34 | 71-43-2 | |
| Ethylbenzene | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 12/22/19 18:34 | 100-41-4 | |
| Toluene | **<0.083** | ug/L | 1.0 | 0.083 | 1 | | 12/22/19 18:34 | 108-88-3 | |
| Xylene (Total) | **<0.31** | ug/L | 3.0 | 0.31 | 1 | | 12/22/19 18:34 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 96 | %. | 75-125 | | 1 | | 12/22/19 18:34 | 17060-07-0 | |
| Toluene-d8 (S) | 105 | %. | 75-125 | | 1 | | 12/22/19 18:34 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 104 | %. | 75-125 | | 1 | | 12/22/19 18:34 | 460-00-4 | |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

**Sample: GW-13S** **Lab ID: 10502680002** Collected: 12/11/19 12:15 Received: 12/14/19 10:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-Gx GCV** | Analytical Method: NWTPH-Gx | | | | | | | | |
| TPH as Gas | **6150** | ug/L | 500 | 192 | 5 | | 12/19/19 02:29 | | G- |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 93 | %. | 50-150 | | 5 | | 12/19/19 02:29 | 98-08-8 | |
| **6010D MET ICP** | Analytical Method: EPA 6010D Preparation Method: EPA 3010 | | | | | | | | |
| Lead | **2.3J** | ug/L | 10.0 | 2.0 | 1 | 12/16/19 12:19 | 12/18/19 14:49 | 7439-92-1 | |
| **8260B MSV UST** | Analytical Method: EPA 8260B | | | | | | | | |
| Benzene | **34.2** | ug/L | 1.0 | 0.10 | 1 | | 12/22/19 18:51 | 71-43-2 | |
| Ethylbenzene | **144** | ug/L | 1.0 | 0.14 | 1 | | 12/22/19 18:51 | 100-41-4 | |
| Toluene | **9.9** | ug/L | 1.0 | 0.083 | 1 | | 12/22/19 18:51 | 108-88-3 | |
| Xylene (Total) | **257** | ug/L | 3.0 | 0.31 | 1 | | 12/22/19 18:51 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 95 | %. | 75-125 | | 1 | | 12/22/19 18:51 | 17060-07-0 | |
| Toluene-d8 (S) | 108 | %. | 75-125 | | 1 | | 12/22/19 18:51 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 104 | %. | 75-125 | | 1 | | 12/22/19 18:51 | 460-00-4 | |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

**Sample: GW-15D** **Lab ID: 10502680003** Collected: 12/11/19 14:15 Received: 12/14/19 10:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-Gx GCV** | Analytical Method: NWTPH-Gx | | | | | | | | |
| TPH as Gas | **61.8J** | ug/L | 100 | 38.3 | 1 | | 12/18/19 19:59 | | |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 92 | %. | 50-150 | | 1 | | 12/18/19 19:59 | 98-08-8 | |
| **6010D MET ICP** | Analytical Method: EPA 6010D Preparation Method: EPA 3010 | | | | | | | | |
| Lead | **2.4J** | ug/L | 10.0 | 2.0 | 1 | 12/16/19 12:19 | 12/18/19 14:56 | 7439-92-1 | |
| **8260B MSV UST** | Analytical Method: EPA 8260B | | | | | | | | |
| Benzene | **<0.10** | ug/L | 1.0 | 0.10 | 1 | | 12/22/19 19:07 | 71-43-2 | |
| Ethylbenzene | **0.28J** | ug/L | 1.0 | 0.14 | 1 | | 12/22/19 19:07 | 100-41-4 | |
| Toluene | **0.16J** | ug/L | 1.0 | 0.083 | 1 | | 12/22/19 19:07 | 108-88-3 | |
| Xylene (Total) | **<0.31** | ug/L | 3.0 | 0.31 | 1 | | 12/22/19 19:07 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 93 | %. | 75-125 | | 1 | | 12/22/19 19:07 | 17060-07-0 | |
| Toluene-d8 (S) | 105 | %. | 75-125 | | 1 | | 12/22/19 19:07 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 103 | %. | 75-125 | | 1 | | 12/22/19 19:07 | 460-00-4 | |

## REPORT OF LABORATORY ANALYSIS

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(612)607-1700

## ANALYTICAL RESULTS

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

**Sample: GW-15S** **Lab ID: 10502680004** Collected: 12/11/19 15:00 Received: 12/14/19 10:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-Gx GCV** | Analytical Method: NWTPH-Gx | | | | | | | | |
| TPH as Gas | **470** | ug/L | 100 | 38.3 | 1 | | 12/19/19 02:46 | | G- |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 99 | %. | 50-150 | | 1 | | 12/19/19 02:46 | 98-08-8 | |
| **6010D MET ICP** | Analytical Method: EPA 6010D Preparation Method: EPA 3010 | | | | | | | | |
| Lead | **<2.0** | ug/L | 10.0 | 2.0 | 1 | 12/16/19 12:19 | 12/18/19 14:57 | 7439-92-1 | |
| **8260B MSV UST** | Analytical Method: EPA 8260B | | | | | | | | |
| Benzene | **0.65J** | ug/L | 1.0 | 0.10 | 1 | | 12/22/19 00:47 | 71-43-2 | |
| Ethylbenzene | **12.0** | ug/L | 1.0 | 0.14 | 1 | | 12/22/19 00:47 | 100-41-4 | |
| Toluene | **1.1** | ug/L | 1.0 | 0.083 | 1 | | 12/22/19 00:47 | 108-88-3 | |
| Xylene (Total) | **17.6** | ug/L | 3.0 | 0.31 | 1 | | 12/22/19 00:47 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 95 | %. | 75-125 | | 1 | | 12/22/19 00:47 | 17060-07-0 | |
| Toluene-d8 (S) | 94 | %. | 75-125 | | 1 | | 12/22/19 00:47 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 100 | %. | 75-125 | | 1 | | 12/22/19 00:47 | 460-00-4 | |

## REPORT OF LABORATORY ANALYSIS

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(612)607-1700

## ANALYTICAL RESULTS

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

**Sample: GW-18D** **Lab ID: 10502680005** Collected: 12/11/19 16:15 Received: 12/14/19 10:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-Gx GCV** | Analytical Method: NWTPH-Gx | | | | | | | | |
| TPH as Gas | **<38.3** | ug/L | 100 | 38.3 | 1 | | 12/18/19 20:16 | | |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 98 | %. | 50-150 | | 1 | | 12/18/19 20:16 | 98-08-8 | |
| **6010D MET ICP** | Analytical Method: EPA 6010D Preparation Method: EPA 3010 | | | | | | | | |
| Lead | **3.4J** | ug/L | 10.0 | 2.0 | 1 | 12/16/19 12:19 | 12/18/19 15:02 | 7439-92-1 | |
| **8260B MSV UST** | Analytical Method: EPA 8260B | | | | | | | | |
| Benzene | **0.32J** | ug/L | 1.0 | 0.10 | 1 | | 12/21/19 23:56 | 71-43-2 | |
| Ethylbenzene | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 12/21/19 23:56 | 100-41-4 | |
| Toluene | **<0.083** | ug/L | 1.0 | 0.083 | 1 | | 12/21/19 23:56 | 108-88-3 | |
| Xylene (Total) | **<0.31** | ug/L | 3.0 | 0.31 | 1 | | 12/21/19 23:56 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 93 | %. | 75-125 | | 1 | | 12/21/19 23:56 | 17060-07-0 | |
| Toluene-d8 (S) | 93 | %. | 75-125 | | 1 | | 12/21/19 23:56 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 98 | %. | 75-125 | | 1 | | 12/21/19 23:56 | 460-00-4 | |

## REPORT OF LABORATORY ANALYSIS

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(612)607-1700

# ANALYTICAL RESULTS

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

**Sample: GW-10D** **Lab ID: 10502680006** Collected: 12/11/19 10:55 Received: 12/14/19 10:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-Dx GCS LV** | Analytical Method: NWTPH-Dx Preparation Method: EPA Mod. 3510C | | | | | | | | |
| Diesel Fuel Range | **<67.7** | ug/L | 408 | 67.7 | 1 | 12/16/19 18:02 | 12/18/19 12:42 | 68334-30-5 | |
| Motor Oil Range | **<79.9** | ug/L | 408 | 79.9 | 1 | 12/16/19 18:02 | 12/18/19 12:42 | | |
| ***Surrogates*** | | | | | | | | | |
| o-Terphenyl (S) | 87 | %. | 50-150 | | 1 | 12/16/19 18:02 | 12/18/19 12:42 | 84-15-1 | |
| n-Triacontane (S) | 97 | %. | 50-150 | | 1 | 12/16/19 18:02 | 12/18/19 12:42 | 638-68-6 | |
| **NWTPH-Gx GCV** | Analytical Method: NWTPH-Gx | | | | | | | | |
| TPH as Gas | **<38.3** | ug/L | 100 | 38.3 | 1 | | 12/18/19 20:33 | | |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 104 | %. | 50-150 | | 1 | | 12/18/19 20:33 | 98-08-8 | |
| **6010D MET ICP** | Analytical Method: EPA 6010D Preparation Method: EPA 3010 | | | | | | | | |
| Lead | **<2.0** | ug/L | 10.0 | 2.0 | 1 | 12/16/19 12:19 | 12/18/19 15:04 | 7439-92-1 | |
| **6010D MET ICP, Dissolved** | Analytical Method: EPA 6010D Preparation Method: EPA 3010 | | | | | | | | |
| Lead, Dissolved | **<2.0** | ug/L | 10.0 | 2.0 | 1 | 12/20/19 13:30 | 12/22/19 10:43 | 7439-92-1 | |
| **8260B MSV UST** | Analytical Method: EPA 8260B | | | | | | | | |
| Benzene | **<0.10** | ug/L | 1.0 | 0.10 | 1 | | 12/22/19 01:04 | 71-43-2 | |
| Ethylbenzene | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 12/22/19 01:04 | 100-41-4 | |
| Toluene | **<0.083** | ug/L | 1.0 | 0.083 | 1 | | 12/22/19 01:04 | 108-88-3 | |
| Xylene (Total) | **<0.31** | ug/L | 3.0 | 0.31 | 1 | | 12/22/19 01:04 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 94 | %. | 75-125 | | 1 | | 12/22/19 01:04 | 17060-07-0 | |
| Toluene-d8 (S) | 94 | %. | 75-125 | | 1 | | 12/22/19 01:04 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 101 | %. | 75-125 | | 1 | | 12/22/19 01:04 | 460-00-4 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

## ANALYTICAL RESULTS

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

**Sample: GW-14D** **Lab ID: 10502680007** Collected: 12/11/19 12:15 Received: 12/14/19 10:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-Gx GCV** | Analytical Method: NWTPH-Gx | | | | | | | | |
| TPH as Gas | **39.9J** | ug/L | 100 | 38.3 | 1 | | 12/18/19 20:50 | | |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 99 | %. | 50-150 | | 1 | | 12/18/19 20:50 | 98-08-8 | |
| **6010D MET ICP** | Analytical Method: EPA 6010D Preparation Method: EPA 3010 | | | | | | | | |
| Lead | **4.4J** | ug/L | 10.0 | 2.0 | 1 | 12/16/19 12:19 | 12/18/19 15:06 | 7439-92-1 | |
| **6010D MET ICP, Dissolved** | Analytical Method: EPA 6010D Preparation Method: EPA 3010 | | | | | | | | |
| Lead, Dissolved | **<2.0** | ug/L | 10.0 | 2.0 | 1 | 12/20/19 13:30 | 12/22/19 10:46 | 7439-92-1 | |
| **8260B MSV UST** | Analytical Method: EPA 8260B | | | | | | | | |
| Benzene | **1.5** | ug/L | 1.0 | 0.10 | 1 | | 12/22/19 16:36 | 71-43-2 | |
| Ethylbenzene | **0.15J** | ug/L | 1.0 | 0.14 | 1 | | 12/22/19 16:36 | 100-41-4 | |
| Toluene | **0.16J** | ug/L | 1.0 | 0.083 | 1 | | 12/22/19 16:36 | 108-88-3 | |
| Xylene (Total) | **<0.31** | ug/L | 3.0 | 0.31 | 1 | | 12/22/19 16:36 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 107 | %. | 75-125 | | 1 | | 12/22/19 16:36 | 17060-07-0 | |
| Toluene-d8 (S) | 102 | %. | 75-125 | | 1 | | 12/22/19 16:36 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 107 | %. | 75-125 | | 1 | | 12/22/19 16:36 | 460-00-4 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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Minneapolis, MN 55414
(612)607-1700

## ANALYTICAL RESULTS

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

**Sample: GW-14S** **Lab ID: 10502680008** Collected: 12/11/19 13:20 Received: 12/14/19 10:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-Gx GCV** | Analytical Method: NWTPH-Gx | | | | | | | | |
| TPH as Gas | **114000** | ug/L | 10000 | 3830 | 100 | | 12/19/19 01:55 | | G- |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 97 | %. | 50-150 | | 100 | | 12/19/19 01:55 | 98-08-8 | |
| **6010D MET ICP** | Analytical Method: EPA 6010D Preparation Method: EPA 3010 | | | | | | | | |
| Lead | **2.5J** | ug/L | 10.0 | 2.0 | 1 | 12/16/19 12:19 | 12/18/19 15:07 | 7439-92-1 | |
| **6010D MET ICP, Dissolved** | Analytical Method: EPA 6010D Preparation Method: EPA 3010 | | | | | | | | |
| Lead, Dissolved | **2.2J** | ug/L | 10.0 | 2.0 | 1 | 12/20/19 13:30 | 12/22/19 10:49 | 7439-92-1 | |
| **8260B MSV UST** | Analytical Method: EPA 8260B | | | | | | | | |
| Benzene | **693** | ug/L | 50.0 | 5.1 | 50 | | 12/22/19 03:53 | 71-43-2 | |
| Ethylbenzene | **2430** | ug/L | 50.0 | 6.9 | 50 | | 12/22/19 03:53 | 100-41-4 | |
| Toluene | **3900** | ug/L | 50.0 | 4.2 | 50 | | 12/22/19 03:53 | 108-88-3 | |
| Xylene (Total) | **11400** | ug/L | 150 | 15.4 | 50 | | 12/22/19 03:53 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 92 | %. | 75-125 | | 50 | | 12/22/19 03:53 | 17060-07-0 | |
| Toluene-d8 (S) | 94 | %. | 75-125 | | 50 | | 12/22/19 03:53 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 99 | %. | 75-125 | | 50 | | 12/22/19 03:53 | 460-00-4 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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(612)607-1700

## ANALYTICAL RESULTS

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

**Sample: Trip Blank** **Lab ID: 10502680009** Collected: 12/11/19 13:20 Received: 12/14/19 10:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-Gx GCV** | Analytical Method: NWTPH-Gx | | | | | | | | |
| TPH as Gas | **<38.3** | ug/L | 100 | 38.3 | 1 | | 12/18/19 21:24 | | |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 96 | %. | 50-150 | | 1 | | 12/18/19 21:24 | 98-08-8 | |
| **8260B MSV UST** | Analytical Method: EPA 8260B | | | | | | | | |
| Benzene | **<0.10** | ug/L | 1.0 | 0.10 | 1 | | 12/22/19 16:35 | 71-43-2 | |
| Ethylbenzene | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 12/22/19 16:35 | 100-41-4 | |
| Toluene | **0.11J** | ug/L | 1.0 | 0.083 | 1 | | 12/22/19 16:35 | 108-88-3 | |
| Xylene (Total) | **<0.31** | ug/L | 3.0 | 0.31 | 1 | | 12/22/19 16:35 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 95 | %. | 75-125 | | 1 | | 12/22/19 16:35 | 17060-07-0 | |
| Toluene-d8 (S) | 105 | %. | 75-125 | | 1 | | 12/22/19 16:35 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 104 | %. | 75-125 | | 1 | | 12/22/19 16:35 | 460-00-4 | |

## REPORT OF LABORATORY ANALYSIS

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(612)607-1700

# QUALITY CONTROL DATA

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

QC Batch: 650742 Analysis Method: NWTPH-Gx
QC Batch Method: NWTPH-Gx Analysis Description: NWTPH-Gx Water
Associated Lab Samples: 10502680001, 10502680002, 10502680003, 10502680004, 10502680005, 10502680006, 10502680007, 10502680008, 10502680009

METHOD BLANK: 3499099 Matrix: Water
Associated Lab Samples: 10502680001, 10502680002, 10502680003, 10502680004, 10502680005, 10502680006, 10502680007, 10502680008, 10502680009

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| TPH as Gas | ug/L | <38.3 | 100 | 38.3 | 12/18/19 19:07 | |
| a,a,a-Trifluorotoluene (S) | %. | 96 | 50-150 | | 12/18/19 19:07 | |

METHOD BLANK: 3499100 Matrix: Water
Associated Lab Samples: 10502680001, 10502680002, 10502680003, 10502680004, 10502680005, 10502680006, 10502680007, 10502680008, 10502680009

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| TPH as Gas | ug/L | <38.3 | 100 | 38.3 | 12/18/19 22:15 | |
| a,a,a-Trifluorotoluene (S) | %. | 99 | 50-150 | | 12/18/19 22:15 | |

LABORATORY CONTROL SAMPLE & LCSD: 3499101 3499102

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH as Gas | ug/L | 1000 | 1020 | 1000 | 102 | 100 | 75-125 | 2 | 20 | |
| a,a,a-Trifluorotoluene (S) | %. | | | | 108 | 102 | 50-150 | | | |

SAMPLE DUPLICATE: 3499133

| Parameter | Units | 10502651007 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| TPH as Gas | ug/L | 1310 | 1300 | 1 | 30 | |
| a,a,a-Trifluorotoluene (S) | %. | 92 | 94 | | | |

SAMPLE DUPLICATE: 3499134

| Parameter | Units | 10502680001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| TPH as Gas | ug/L | 66.9J | 58.8J | | 30 | |
| a,a,a-Trifluorotoluene (S) | %. | 98 | 103 | | | |

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## REPORT OF LABORATORY ANALYSIS

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(612)607-1700

## QUALITY CONTROL DATA

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

QC Batch: 650093 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010 Analysis Description: 6010D Water
Associated Lab Samples: 10502680001, 10502680002, 10502680003, 10502680004, 10502680005, 10502680006, 10502680007, 10502680008

METHOD BLANK: 3496376 Matrix: Water
Associated Lab Samples: 10502680001, 10502680002, 10502680003, 10502680004, 10502680005, 10502680006, 10502680007, 10502680008

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Lead | ug/L | <2.0 | 10.0 | 2.0 | 12/18/19 14:37 | |

LABORATORY CONTROL SAMPLE: 3496377

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Lead | ug/L | 1000 | 1010 | 101 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3496378 3496379

| Parameter | Units | 10502680001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lead | ug/L | 5.0J | 1000 | 1000 | 1000 | 996 | 100 | 99 | 75-125 | 1 | 20 | |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

QC Batch: 651190 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010 Analysis Description: 6010D Water Dissolved
Associated Lab Samples: 10502680001, 10502680006, 10502680007, 10502680008

METHOD BLANK: 3501700 Matrix: Water
Associated Lab Samples: 10502680001, 10502680006, 10502680007, 10502680008

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Lead, Dissolved | ug/L | <2.0 | 10.0 | 2.0 | 12/22/19 10:35 | |

LABORATORY CONTROL SAMPLE: 3501701

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Lead, Dissolved | ug/L | 1000 | 1090 | 109 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3501702 3501703

| Parameter | Units | 10502418003 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lead, Dissolved | ug/L | <2.0 | 1000 | 1000 | 1050 | 883 | 105 | 88 | 75-125 | 17 | 20 | |

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## REPORT OF LABORATORY ANALYSIS

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(612)607-1700

## QUALITY CONTROL DATA

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

QC Batch: 651345 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV UST-WATER
Associated Lab Samples: 10502680004, 10502680005, 10502680006, 10502680008

METHOD BLANK: 3502956 Matrix: Water
Associated Lab Samples: 10502680004, 10502680005, 10502680006, 10502680008

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Benzene | ug/L | <0.10 | 1.0 | 0.10 | 12/21/19 23:05 | |
| Ethylbenzene | ug/L | <0.14 | 1.0 | 0.14 | 12/21/19 23:05 | |
| Toluene | ug/L | <0.083 | 1.0 | 0.083 | 12/21/19 23:05 | |
| Xylene (Total) | ug/L | <0.31 | 3.0 | 0.31 | 12/21/19 23:05 | |
| 1,2-Dichloroethane-d4 (S) | %. | 93 | 75-125 | | 12/21/19 23:05 | |
| 4-Bromofluorobenzene (S) | %. | 100 | 75-125 | | 12/21/19 23:05 | |
| Toluene-d8 (S) | %. | 94 | 75-125 | | 12/21/19 23:05 | |

LABORATORY CONTROL SAMPLE: 3502957

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Benzene | ug/L | 20 | 20.0 | 100 | 75-125 | |
| Ethylbenzene | ug/L | 20 | 20.5 | 103 | 75-125 | |
| Toluene | ug/L | 20 | 19.6 | 98 | 75-125 | |
| Xylene (Total) | ug/L | 60 | 60.1 | 100 | 75-125 | |
| 1,2-Dichloroethane-d4 (S) | %. | | | 98 | 75-125 | |
| 4-Bromofluorobenzene (S) | %. | | | 103 | 75-125 | |
| Toluene-d8 (S) | %. | | | 97 | 75-125 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502961 3502962

| Parameter | Units | 10502680005 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ug/L | 0.32J | 20 | 20 | 20.2 | 18.4 | 99 | 91 | 30-150 | 9 | 30 | |
| Ethylbenzene | ug/L | <0.14 | 20 | 20 | 20.5 | 19.3 | 103 | 97 | 30-150 | 6 | 30 | |
| Toluene | ug/L | <0.083 | 20 | 20 | 19.8 | 18.1 | 99 | 90 | 30-150 | 9 | 30 | |
| Xylene (Total) | ug/L | <0.31 | 60 | 60 | 60.0 | 56.6 | 100 | 94 | 30-150 | 6 | 30 | |
| 1,2-Dichloroethane-d4 (S) | %. | | | | | | 97 | 97 | 75-125 | | | |
| 4-Bromofluorobenzene (S) | %. | | | | | | 104 | 104 | 75-125 | | | |
| Toluene-d8 (S) | %. | | | | | | 97 | 96 | 75-125 | | | |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

QC Batch: 651363 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV UST-WATER
Associated Lab Samples: 10502680001, 10502680002, 10502680003, 10502680009

METHOD BLANK: 3503040 Matrix: Water
Associated Lab Samples: 10502680001, 10502680002, 10502680003, 10502680009

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Benzene | ug/L | <0.10 | 1.0 | 0.10 | 12/22/19 16:01 | |
| Ethylbenzene | ug/L | <0.14 | 1.0 | 0.14 | 12/22/19 16:01 | |
| Toluene | ug/L | <0.083 | 1.0 | 0.083 | 12/22/19 16:01 | |
| Xylene (Total) | ug/L | <0.31 | 3.0 | 0.31 | 12/22/19 16:01 | |
| 1,2-Dichloroethane-d4 (S) | %. | 92 | 75-125 | | 12/22/19 16:01 | |
| 4-Bromofluorobenzene (S) | %. | 102 | 75-125 | | 12/22/19 16:01 | |
| Toluene-d8 (S) | %. | 105 | 75-125 | | 12/22/19 16:01 | |

LABORATORY CONTROL SAMPLE: 3503041

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Benzene | ug/L | 20 | 16.4 | 82 | 75-125 | |
| Ethylbenzene | ug/L | 20 | 20.3 | 101 | 75-125 | |
| Toluene | ug/L | 20 | 19.5 | 97 | 75-125 | |
| Xylene (Total) | ug/L | 60 | 61.2 | 102 | 75-125 | |
| 1,2-Dichloroethane-d4 (S) | %. | | | 99 | 75-125 | |
| 4-Bromofluorobenzene (S) | %. | | | 105 | 75-125 | |
| Toluene-d8 (S) | %. | | | 105 | 75-125 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503206 3503207

| Parameter | Units | 10502651001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ug/L | 31.1 | 20 | 20 | 48.3 | 46.4 | 86 | 76 | 30-150 | 4 | 30 | |
| Ethylbenzene | ug/L | 6.6 | 20 | 20 | 28.3 | 27.6 | 109 | 105 | 30-150 | 3 | 30 | |
| Toluene | ug/L | 31.4 | 20 | 20 | 51.7 | 48.7 | 101 | 87 | 30-150 | 6 | 30 | |
| Xylene (Total) | ug/L | 42.2 | 60 | 60 | 107 | 104 | 108 | 102 | 30-150 | 3 | 30 | |
| 1,2-Dichloroethane-d4 (S) | %. | | | | | | 105 | 103 | 75-125 | | | |
| 4-Bromofluorobenzene (S) | %. | | | | | | 103 | 108 | 75-125 | | | |
| Toluene-d8 (S) | %. | | | | | | 107 | 106 | 75-125 | | | |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

QC Batch: 651365
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260B MSV UST-WATER
Associated Lab Samples: 10502680007

METHOD BLANK: 3503044 Matrix: Water
Associated Lab Samples: 10502680007

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Benzene | ug/L | <0.10 | 1.0 | 0.10 | 12/22/19 14:35 | |
| Ethylbenzene | ug/L | <0.14 | 1.0 | 0.14 | 12/22/19 14:35 | |
| Toluene | ug/L | <0.083 | 1.0 | 0.083 | 12/22/19 14:35 | |
| Xylene (Total) | ug/L | <0.31 | 3.0 | 0.31 | 12/22/19 14:35 | |
| 1,2-Dichloroethane-d4 (S) | %. | 106 | 75-125 | | 12/22/19 14:35 | |
| 4-Bromofluorobenzene (S) | %. | 104 | 75-125 | | 12/22/19 14:35 | |
| Toluene-d8 (S) | %. | 101 | 75-125 | | 12/22/19 14:35 | |

LABORATORY CONTROL SAMPLE: 3503045

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Benzene | ug/L | 20 | 18.9 | 95 | 75-125 | |
| Ethylbenzene | ug/L | 20 | 20.2 | 101 | 75-125 | |
| Toluene | ug/L | 20 | 19.7 | 98 | 75-125 | |
| Xylene (Total) | ug/L | 60 | 62.0 | 103 | 75-125 | |
| 1,2-Dichloroethane-d4 (S) | %. | | | 105 | 75-125 | |
| 4-Bromofluorobenzene (S) | %. | | | 102 | 75-125 | |
| Toluene-d8 (S) | %. | | | 104 | 75-125 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503832 3503833

| Parameter | Units | 10503678001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ug/L | ND | 20 | 20 | 17.2 | 17.1 | 86 | 85 | 30-150 | 0 | 30 | |
| Ethylbenzene | ug/L | ND | 20 | 20 | 18.5 | 18.3 | 93 | 91 | 30-150 | 1 | 30 | |
| Toluene | ug/L | ND | 20 | 20 | 17.5 | 17.8 | 88 | 89 | 30-150 | 1 | 30 | |
| Xylene (Total) | ug/L | ND | 60 | 60 | 55.8 | 55.0 | 93 | 92 | 30-150 | 1 | 30 | |
| 1,2-Dichloroethane-d4 (S) | %. | | | | | | 106 | 104 | 75-125 | | | |
| 4-Bromofluorobenzene (S) | %. | | | | | | 103 | 102 | 75-125 | | | |
| Toluene-d8 (S) | %. | | | | | | 103 | 103 | 75-125 | | | |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

QC Batch: 650250
QC Batch Method: EPA Mod. 3510C
Associated Lab Samples: 10502680006

Analysis Method: NWTPH-Dx
Analysis Description: NWTPH-Dx GCS LV

METHOD BLANK: 3496843 Matrix: Water
Associated Lab Samples: 10502680006

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Diesel Fuel Range | ug/L | <66.3 | 400 | 66.3 | 12/18/19 11:45 | |
| Motor Oil Range | ug/L | <78.3 | 400 | 78.3 | 12/18/19 11:45 | |
| n-Triacontane (S) | %. | 88 | 50-150 | | 12/18/19 11:45 | |
| o-Terphenyl (S) | %. | 83 | 50-150 | | 12/18/19 11:45 | |

LABORATORY CONTROL SAMPLE & LCSD: 3496844 3496845

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Fuel Range | ug/L | 2000 | 2010 | 1930 | 100 | 97 | 50-150 | 4 | 20 | |
| Motor Oil Range | ug/L | 2000 | 1960 | 1920 | 98 | 96 | 50-150 | 2 | 20 | |
| n-Triacontane (S) | %. | | | | 101 | 95 | 50-150 | | | |
| o-Terphenyl (S) | %. | | | | 100 | 96 | 50-150 | | | |

SAMPLE DUPLICATE: 3496846

| Parameter | Units | 10502680006 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Diesel Fuel Range | ug/L | <67.7 | <78.9 | | 30 | |
| Motor Oil Range | ug/L | <79.9 | <93.2 | | 30 | |
| n-Triacontane (S) | %. | 97 | 97 | | | |
| o-Terphenyl (S) | %. | 87 | 86 | | | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

# QUALIFIERS

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## LABORATORIES

| | |
|---|---|
| PASI-M | Pace Analytical Services - Minneapolis |

## ANALYTE QUALIFIERS

| | |
|---|---|
| G- | Early peaks present outside the GRO window. |

**Pace Analytical Services, LLC**
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

## METHOD CROSS REFERENCE TABLE

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

| Parameter | Matrix | Analytical Method | Preparation Method |
|---|---|---|---|
| 8260B MSV UST | Water | SW-846 8260B/5030B | N/A |

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

# QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Z076000070 AOC 2063 P66-Burien
Pace Project No.: 10502680

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **10502680006** | **GW-10D** | EPA Mod. 3510C | 650250 | NWTPH-Dx | 650681 |
| **10502680001** | **GW-13D** | NWTPH-Gx | 650742 | | |
| **10502680002** | **GW-13S** | NWTPH-Gx | 650742 | | |
| **10502680003** | **GW-15D** | NWTPH-Gx | 650742 | | |
| **10502680004** | **GW-15S** | NWTPH-Gx | 650742 | | |
| **10502680005** | **GW-18D** | NWTPH-Gx | 650742 | | |
| **10502680006** | **GW-10D** | NWTPH-Gx | 650742 | | |
| **10502680007** | **GW-14D** | NWTPH-Gx | 650742 | | |
| **10502680008** | **GW-14S** | NWTPH-Gx | 650742 | | |
| **10502680009** | **Trip Blank** | NWTPH-Gx | 650742 | | |
| **10502680001** | **GW-13D** | EPA 3010 | 650093 | EPA 6010D | 650358 |
| **10502680002** | **GW-13S** | EPA 3010 | 650093 | EPA 6010D | 650358 |
| **10502680003** | **GW-15D** | EPA 3010 | 650093 | EPA 6010D | 650358 |
| **10502680004** | **GW-15S** | EPA 3010 | 650093 | EPA 6010D | 650358 |
| **10502680005** | **GW-18D** | EPA 3010 | 650093 | EPA 6010D | 650358 |
| **10502680006** | **GW-10D** | EPA 3010 | 650093 | EPA 6010D | 650358 |
| **10502680007** | **GW-14D** | EPA 3010 | 650093 | EPA 6010D | 650358 |
| **10502680008** | **GW-14S** | EPA 3010 | 650093 | EPA 6010D | 650358 |
| **10502680001** | **GW-13D** | EPA 3010 | 651190 | EPA 6010D | 651349 |
| **10502680006** | **GW-10D** | EPA 3010 | 651190 | EPA 6010D | 651349 |
| **10502680007** | **GW-14D** | EPA 3010 | 651190 | EPA 6010D | 651349 |
| **10502680008** | **GW-14S** | EPA 3010 | 651190 | EPA 6010D | 651349 |
| **10502680001** | **GW-13D** | EPA 8260B | 651363 | | |
| **10502680002** | **GW-13S** | EPA 8260B | 651363 | | |
| **10502680003** | **GW-15D** | EPA 8260B | 651363 | | |
| **10502680004** | **GW-15S** | EPA 8260B | 651345 | | |
| **10502680005** | **GW-18D** | EPA 8260B | 651345 | | |
| **10502680006** | **GW-10D** | EPA 8260B | 651345 | | |
| **10502680007** | **GW-14D** | EPA 8260B | 651365 | | |
| **10502680008** | **GW-14S** | EPA 8260B | 651345 | | |
| **10502680009** | **Trip Blank** | EPA 8260B | 651363 | | |

Pace Analytical®
www.pacelabs.com

# CHAIN-OF-CUSTODY / Analytical Request Docur

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

**WO# : 10502680**

10502680

**Section A** Required Client Information:

| | |
|---|---|
| Company: | ATC Group Services |
| Address: | 6347 Seaview Ave NW |
| Email To: | Elisabeth.Silver |
| Phone: | 206 781 1449 Fax: |
| Requested Due Date/TAT: | |

**Section B** Required Project Information:

| | |
|---|---|
| Report To: | Elisabeth Silver |
| Copy To: | |
| Purchase Order No.: | |
| Project Name: | AOC 2063 P66-Burien |
| Project Number: | 10760000.70 |

**Section C** Invoice Information:

| | |
|---|---|
| Attention: | |
| Company Name: | |
| Address: | |
| Pace Quote Reference: | |
| Pace Project Manager: | |
| Pace Profile #: | 397652 |

**REGULATORY AGENCY**

☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: WA

**Section D** Required Client Information

**SAMPLE ID** (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

| ITEM # | SAMPLE ID | MATRIX CODE | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED COMPOSITE START DATE | COLLECTED COMPOSITE START TIME | COLLECTED COMPOSITE END/GRAB DATE | COLLECTED COMPOSITE END/GRAB TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives: Unpreserved | $H_2SO_4$ | $HNO_3$ | HCl | NaOH | $Na_2S_2O_3$ | Methanol | Other | Analysis Test Y/N: NWTPH-GX | BTEX 8260 | NWTPH-DX | Lead - Total | Lead - Dissolved | Residual Chlorine (Y/N) | Pace Project No./ Lab I.D. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | GW-13D | | | 12/11/19 | 1115 | | | | 8 | | | 2 | 6 | | | | | X | X | X | X | X | | 001 |
| 2 | GW-13S | | | | 1215 | | | | 8 | | | 2 | 6 | | | | | X | X | X | X | | | 002 |
| 3 | GW-15D | | | | 1415 | | | | 8 | | | 2 | 6 | | | | | X | X | X | X | | | 003 |
| 4 | GW-15S | | | | 1500 | | | | 8 | | | 2 | 6 | | | | | X | X | X | X | | | 004 |
| 5 | GW-18D | | | | 1615 | | | | 8 | | | 2 | 6 | | | | | X | X | X | X | | | 005 |
| 6 | GW-10D | | | 12/11/19 | 1055 | | | | 10 | | | 2 | 8 | | | | | X | X | X | X | X | | 006 |
| 7 | GW-14D | | | | 1215 | | | | 8 | | | 2 | 6 | | | | | X | X | X | X | X | | 007 |
| 8 | GW-14S | | | | 1320 | | | | 8 | | | 2 | 6 | | | | | X | X | X | X | X | | 008 |
| 9 | Trip. Blank | | | | 1320 | | | | 4 | | | | | | | | | | | | | | | 009 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | |

Requested Analysis Filtered (Y/N)

Note - Dissolved Lead for GW-15D GW-15S, GW-18D and GW-13S are NOT Field Filtered please Discard those Diss. Lead bottles.

Pace Project No./ Lab I.D.

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS |
|---|---|---|---|---|---|---|---|
| Discard Dissolved lead bottles labled as NOT FF - (GW-13S, GW-15D GW-15S, GW-18D). | A. Degefa | 12/13/19 1215 | | Mullen Pace | 12-14-19 | 1000 | 0.6 |

**SAMPLER NAME AND SIGNATURE**

PRINT Name of SAMPLER: A. Degefa

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 12/13/19

| Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) |
|---|---|---|---|
| | | | |

ORIGINAL

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

| Pace Analytical® | Document Name: **Sample Condition Upon Receipt Form** | Document Revised: 14Nov2019 Page 1 of 1 |
|---|---|---|
| | Document No.: **F-MN-L-213-rev.30** | Pace Analytical Services - **Minneapolis** |

**Sample Condition Upon Receipt**

**Client Name:** ATC Group Service

**Project #:** **WO#: 10502680**

**PM: JMG** **Due Date: 12/23/19**

**CLIENT: ATC_WA**

**Courier:** ☒Fed Ex ☐UPS ☐USPS ☐Client ☐Pace ☐SpeeDee ☐Commercial **See Exceptions** ☐

**Tracking Number:** 4934 3734 3604

**Custody Seal on Cooler/Box Present?** ☒Yes ☐No **Seals Intact?** ☒Yes ☐No **Biological Tissue Frozen?** ☐Yes ☐No ☒N/A

**Packing Material:** ☒Bubble Wrap ☒Bubble Bags ☐None ☐Other:_____ **Temp Blank?** ☒Yes ☐No

**Thermometer:** ☐T1(0461) ☐T2(1336) ☒T3(0459) ☐T4(0254) ☐T5(0489) **Type of Ice:** ☒Wet ☐Blue ☐None ☐Dry ☐Melted

**Note: Each West Virginia Sample must have temp taken (no temp blanks)**

Temp should be above freezing to 6°C **Cooler Temp Read w/temp blank:** 0.6 °C **Average Corrected Temp (no temp blank only):** ☐See Exceptions

**Correction Factor:** True **Cooler Temp Corrected w/temp blank:** 0.6 °C ☐1 Container

**USDA Regulated Soil:** (☒N/A, water sample/Other:_____) **Date/Initials of Person Examining Contents:** MK2 12-14-19

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? ☐Yes ☐No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐Yes ☐No

**If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.**

| | | | | COMMENTS: |
|---|---|---|---|---|
| Chain of Custody Present and Filled Out? | ☒Yes | ☐No | | 1. |
| Chain of Custody Relinquished? | ☒Yes | ☐No | | 2. |
| Sampler Name and/or Signature on COC? | ☒Yes | ☐No | ☐N/A | 3. |
| Samples Arrived within Hold Time? | ☒Yes | ☐No | | 4. |
| **Short Hold Time Analysis (<72 hr)?** | ☐Yes | ☒No | | 5. ☐Fecal Coliform ☐HPC ☐Total Coliform/E coli ☐BOD/cBOD ☐Hex Chrome ☐Turbidity ☐Nitrate ☐Nitrite ☐Orthophos ☐Other_____ |
| **Rush Turn Around Time Requested?** | ☐Yes | ☒No | | 6. |
| Sufficient Volume? | ☒Yes | ☐No | | 7. |
| Correct Containers Used? -Pace Containers Used? | ☒Yes ☒Yes | ☐No ☐No | | 8. |
| Containers Intact? | ☒Yes | ☐No | | 9. |
| Field Filtered Volume Received for Dissolved Tests? | ☒Yes | ☐No | ☐N/A | 10. Is sediment visible in the dissolved container? ☐Yes ☒No |
| Is sufficient information available to reconcile the samples to the COC? Matrix: ☒Water ☐Soil ☐Oil ☐Other_____ | ☒Yes | ☐No | | 11. **If no, write ID/ Date/Time on Container Below:** **See Exception** ☐ |
| All containers needing acid/base preservation have been checked? | ☒Yes | ☐No | ☐N/A | 12. Sample # |
| All containers needing preservation are found to be in compliance with EPA recommendation? ($HNO_3$, $H_2SO_4$, <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide) | ☒Yes | ☐No | ☐N/A | ☐NaOH ☐$HNO_3$ ☐$H_2SO_4$ ☐Zinc Acetate |
| Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS | ☒Yes | ☐No | ☐N/A | Positive for Res. Chlorine? ☐Yes ☐No **pH Paper Lot#** **See Exception** ☐ |
| | | | | Res. Chlorine \| 0-6 Roll \| 0-6 Strip \| 0-14 Strip |
| Extra labels present on soil VOA or WIDRO containers? | ☐Yes | ☐No | ☒N/A | 13. **See Exception** ☐ |
| Headspace in VOA Vials (greater than 6mm)? | ☐Yes | ☒No | ☐N/A | |
| Trip Blank Present? | ☒Yes | ☐No | ☐N/A | 14. 6 water trip blanks |
| Trip Blank Custody Seals Present? | ☒Yes | ☐No | ☐N/A | Pace Trip Blank Lot # (if purchased): 237394 |

**CLIENT NOTIFICATION/RESOLUTION** **Field Data Required?** ☐Yes ☐No

Person Contacted: Elisabeth Silver Date/Time: 12/16/19

Comments/Resolution: Analyze the trip blank for BTEX/NWTPH-Gx.

**Project Manager Review:** Jenni Gross **Date:** 121619

Note: Whenever there is a discrepancy affecting N… …mpliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled by: MK2 (3)

**APPENDIX B**

**FIELD REPORTS / GROUNDWATER GAUGING & SAMPLING LOGS**

# Field Report

FLD-100
Revision 1.0
6/1/2016

| | | |
|---|---|---|
| ATC Branch: Seattle - 10282 | Date: 12/11/2019 | Page 1 of 1 |
| ATC Representative(s): A. Degefa, J. Teresi | Project: P66 - Burien AOC 2063 | |
| Role: Field Geologist, Staff Scientist | Location: 12660 1st Ave. S, Seattle, WA | |
| Contact Information: (206) 781-1449 | Project No: 2076000070 | Task No: -- |
| Scope of Work: | Weather: overcast, ~45°F, rainy | Temperature: ~45°F |
| X Monitoring ___ Assessment ___ Remediation ___ Closure | Contractor: N/A | |

| Time: | Comments: |
|---|---|
| 0945 | ATC onsite, tailgate meeting, HASP, JSAs, etc. conducted |
| 1015 | Move to ~~GW-13D~~ GW-13D & ~~GW-13S~~ GW-13S & set up pump + exclusion zone |
| 1115 | Sample ~~GW-13D~~ GW-13D @ 1115 |
| 1145 | Move to ~~GW-13S~~ GW-13S; sample @ 1215 |
| 1245 | Trouble w/ field filters → call Geotech & PM |
| 1300 | start lunch; stop lunch @ 1315 |
| 1315 | Move to GW-15D; sample @ 1415 |
| 1420 | Move to GW-15S; sample @ 1500 |
| 1505 | Move to GW-18S & GW-18D |
| 1530 | * GW-18S not sampled b/c not enough water in well |
| 1535 | Move to GW-18D; sample @ 1615 |
| 1645 | ATC offsite |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

Equipment Used: Geosub submersible pump w/ controller & inverter, YSI, water level meter

| | | |
|---|---|---|
| Contractor Hours (per Person): | Staff / Technician Hours: | Mileage: |
| Copies To: | Project Manager: E. Silver | |
| | Reviewed By: | |

# Field Report

FLD-100
Revision 1.0
6/1/2016

| | | |
|---|---|---|
| ATC Branch: Seattle - 10282 | Date: 12/12/2014 | Page 1 of 1 |
| ATC Representative(s): A. Degele, J. Teveri | Project: P66 - Burien AOC 2063 | |
| Role: Field Geologist, Staff Scientist | Location: 12660 1st Ave. S., Seattle, WA | |
| Contact Information: (206) 781-1449 | Project No: 2076000070 | Task No: -- |
| Scope of Work: | Weather: overcast, rainy | Temperature: ~45°F |
| X Monitoring ___ Assessment ___ Remediation ___ Closure | Contractor: N/A | |

| Time: | Comments: |
|---|---|
| 0925 | ATC onsite; tailgate meeting performed & HASP reviewed |
| 1005 | Move to GW-10D; sample @ 1055 |
| 1120 | Move to GW-14D; sample @ 1215 |
| 1230 | start lunch |
| 1245 | end lunch |
| 1250 | Move to GW-14S; sample @ 1320 |
| 1355 | ATC demobilize equipment & dump wastewater & purge water |
| — | into onsite 30-gallon drum |
| 1405 | ATC offsite |
| | |
| | |
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| | |
| | |
| | |
| | |

Equipment Used: geosub submersible pump w/ inverter & controller, YSI, water level meter

| | | |
|---|---|---|
| Contractor Hours (per Person): | Staff / Technician Hours: | Mileage: |
| Copies To: | Project Manager: E. Silva | |
| | Reviewed By: | |

# Monitor Well Gauging Log

FLD-102
Revision 0.0
Jul-08

ATC Branch: Seattle - 10282

Date: 12/11/19 Page of

ATC Representative(s): 12/11/19 A. Degefa / J.T

Project: ADC2063 P66-Burien

Location: 12660 1st Ave S, Seattle, WA

Contact Information: (206) 781-1449

Project No: 207600070 Task No:

Weather: Rain Temperature: 50°

Water Level Meter Model/ID: EnviroTape

Interface Probe Model/ID:

| Well ID | Casing Diameter (inches) / Type | Time of Well Cap Removal* | Time of Gauging* | Depth To LNAPL (feet) | Depth To Water (feet) | LNAPL Thickness (feet) | Total Well Depth (feet) | Other (DTW, DO, ORP, Temp, etc) |
|---|---|---|---|---|---|---|---|---|
| GW-15D | 2" | 1330 | 1332 | — | 57.35 | — | 74.40 | |
| GW-15S | 2" | 1425 | 1427 | — | 40.42 | — | 45.00 | |
| GW-14D | 2" | 11:35 | 11:38 | — | 77.30 | — | 80.20 | |
| GW-14S | 2" | 1248 | 1250 | — | | — | 50.50 | |
| GW-13D | 2" | 10:29 | 10:30 | — | 76.65 | — | 85.20 | |
| GW-13S | 2" | 1140 | 1143 | — | 40.10 | — | 50.00 | |
| GW-10D | 2" | 9:55 | 10:00 | — | 79.00 | — | 93.10 | |
| GW-18D | 2" | 1535 | 1538 | — | 77.70 | — | 80.90 | |
| GW-18S | 2" | 1520 | 1523 | — | 48.30 | — | 49.20 | not enough to sample |

12-12-19

12-12-19

**Comments:**

GW-18S Not Enough water, not Sampled.

Notes:

* If top of screen is submerged, allow at least 15 minutes for well equilibration following well cap removal.
All measurements to be reported to nearest 0.01 ft.

ID = Identification.
LNAPL = Light Non-Aqueous Phase Liquid.
Sheen = Discontinuous, non-measurable thickness of LNAPL (less than 0.01 ft).
Trace = Continuous, non-measurable thickness of LNAPL.

# Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

ATC Branch: Seattle - 10282
Date: 12/11/2019
Page 1 of

ATC Representative(s): AD / J.T
Project: ADC2063 PBS - Bullitt
Location: 12660 1st Ave S, Seattle, WA

Contact Information: (206) 781-1449
Project No: 7076000.70
Task No:

**Well ID:** GW-13D
Weather:
Temperature:

## Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): **Envirotape**
Interface Probe (Model/ID): **NA**

Water Quality Meter (Model/ID): **YSI 556 MPS**
Decontamination Method: **Alconox/DI Water**

Purging Method: ____ PVC Bailer ____ Vacuum Truck X Submersible Pump ____ Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 79.0

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

## Casing Volume Information

Casing Diameter (Circle): (2") 4" 6" Other

Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47

## Purging Calculations

Casing Volumes (CV):

WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

## Monitoring Measurements

Depth to LNAPL (feet): /
Total Well Depth (feet): 85.20

Depth to Water (DTW)(feet): 76.65
Water Column (WC)(feet): 8.55

LNAPL Thickness (ft): /
Purging Start Time: 1048

## Purging Data

| Time (24 Hours) | DTW (Feet) | Cum. Vol. Purged (Gallons) | Temp (°C) (± 1°) | Specific Cond. (uS/cm) (± 5%) | Turbidity NTU | Dissolved Oxygen (mg/L) (± 10%) | pH (± 0.1) | ORP (mV) (± 10 mV) | Other |
|---|---|---|---|---|---|---|---|---|---|
| 1058 | 76.70 | 0.25 | 13.51 | 403 | clear | 5.40 | 7.25 | 96.1 | — |
| 1101 | 76.70 | 1.0 | 13.71 | 401 | turbid | 5.19 | 7.27 | 94.6 | — |
| 1104 | 76.70 | 1.02 | 13.84 | 401 | clear | 5.18 | 7.28 | 93.8 | — |
| | | | | | | | | | |
| | | | | | | | | | |

## Sample Data

Sample ID: GW-13D
Time of Sample: 1115

Container Types, Volumes, & Quantities:

| Filtered (yes/no) | Preservatives | Analytical Parameters |
|---|---|---|
| NO | HCl | Gx, VOCs |
| NO/Lab Filtered | HNO3 | Pb, Dissolved Pb |

6-40ml VOAs
2-250ml PE

## Well Recovery Data

Maximum Drawdown (DTW*m*)(feet): 0.05
Approximate Flow Rate (GPM): 120 ml/min.

Recovery Type: X Fast ____ Slow
% Recovery = 100%

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments: initial purging flow rate: 69

# Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

| | | |
|---|---|---|
| ATC Branch: Seattle - 10282 | Date: | Page of |
| ATC Representative(s): A. Degefa / J. T | Project: AOC 2063 PGG - Burien | |
| | Location: 12660 1st Ave S, Seattle, WA | |
| Contact Information: (206) 781-1449 | Project No: 20160000070 | Task No: |
| **Well ID:** GW-135 | Weather: Rain | Temperature: 45° |

## Purging & Sampling Instrumentation & Method

| | |
|---|---|
| Water Level Meter (Model/ID): **Envirotape** | Interface Probe (Model/ID): **NA** |
| Water Quality Meter (Model/ID): **YSI 556 MPS** | Decontamination Method: **Alconox/DI Water** |

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump ___ Peristaltic Pump Other: Geo Sub

3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 42.0

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer K Dedicated Tubing Other: ____

## Casing Volume Information

Casing Diameter (Circle): (2") 4" 6" Other

Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47

## Purging Calculations

Casing Volumes (CV):

WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

## Monitoring Measurements

| | |
|---|---|
| Depth to LNAPL (feet): | Total Well Depth (feet): 50.00 |
| Depth to Water (DTW)(feet): 40.00 | Water Column (WC)(feet): 10.0 |
| LNAPL Thickness (ft): | Purging Start Time: 1157 |

## Purging Data

| Time (24 Hours) | DTW (Feet) | Cum. Vol. Purged (Gallons) | Temp (°C) (± 1°) | Specific Cond. (uS/cm) (± 5%) | Turbidity NTU | Dissolved Oxygen (mg/L) (± 10%) | pH (± 0.1) | ORP (mV) (± 10 mV) | Other |
|---|---|---|---|---|---|---|---|---|---|
| 1207 | 40.60 | 0.50 | 13.02 | 410 | Clear | 0.37 | 7.71 | -66.7 | — |
| 1210 | 40.62 | 0.75 | 13.03 | 410 | " | 0.37 | 7.71 | -72.5 | — |
| 1213 | 40.65 | 0.85 | 13.17 | 407 | " | 0.37 | 7.68 | -76.3 | — |
| | | | | | | | | | |
| | | | | | | | | | |

## Sample Data

Sample ID: GW-135 Time of Sample: 1215

| Container Types, Volumes, & Quantities: | Filtered (yes/no) | Preservatives | Analytical Parameters |
|---|---|---|---|
| 6-40ml VOAs | NO | HCl | Gx, VOCs |
| 2-250ml PE | NO/Lab Filtered | HNO3 | Pb, Dissolved Pb |

## Well Recovery Data

| | |
|---|---|
| Maximum Drawdown (DTW*m*)(feet): 0.65 | Approximate Flow Rate (GPM): |
| Recovery Type: ____ Fast ____ Slow | % Recovery = |

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

# Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

ATC Branch: Seattle - 10282
Date: 12/11/19
Page 1 of

ATC Representative(s): A. Deyett / J. T
Contact Information: (206) 781-1449
Project: AOC 2063 - P66 Burien
Location: 12660 1st Ave S, Seattle, WA
Project No: 70760200 70
Task No:

**Well ID:** GW-15D

Weather: Rain/Overcast
Temperature: 45°

## Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): **Envirotape**
Interface Probe (Model/ID): **NA**
Water Quality Meter (Model/ID): **YSI 556 MPS**
Decontamination Method: **Alconox/DI Water**

Purging Method: ____ PVC Bailer ____ Vacuum Truck X Submersible Pump ____ Peristaltic Pump Other: GeoSub
3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) ~59.35
Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

## Casing Volume Information

Casing Diameter (Circle): (2") 4" 6" Other
Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47

## Purging Calculations

Casing Volumes (CV):
WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

## Monitoring Measurements

Depth to LNAPL (feet): ~
Depth to Water (DTW)(feet): 57.35
LNAPL Thickness (ft): ~

Total Well Depth (feet): 74.40
Water Column (WC)(feet): 17.05
Purging Start Time: ~~1343~~ 1350

## Purging Data

| Time (24 Hours) | DTW (Feet) | Cum. Vol. Purged (Gallons) | Temp (°C) (± 1°) | Specific Cond. (uS/cm) (± 5%) | Turbidity NTU | Dissolved Oxygen (mg/L) (± 10%) | pH (± 0.1) | ORP (mV) (± 10 mV) | Other |
|---|---|---|---|---|---|---|---|---|---|
| 1400 | 58.70 | 0.50 | 14.16 | 305 | Clear | 1.10 | 6.94 | 64.12 | — |
| 1403 | 58.90 | 0.70 | 14.61 | 304 | " | 1.09 | 6.93 | 64.13 | — |
| 1406 | 58.80 | 0.80 | 14.60 | 303 | " | 1.07 | 6.92 | 64.18 | — |
| | | | | | | | | | |
| | | | | | | | | | |

## Sample Data

Sample ID: GW-15D
Time of Sample: 1415

Container Types, Volumes, & Quantities:
6-40ml VOAs
2-250ml PE

| Filtered (yes/no) | Preservatives | Analytical Parameters |
|---|---|---|
| NO | HCl | Gx, VOCs |
| NO/Lab Filtered | HNO3 | Pb, Dissolved Pb |

## Well Recovery Data

Maximum Drawdown (DTW*m*)(feet): 0.45
Approximate Flow Rate (GPM): ~130 mL/min
Recovery Type: X Fast ____ Slow
% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments: flow rate: .52

# Monitoring Well Purging and Sampling Log

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Revision 1.0
Jul-08

ATC Branch: Seattle - 10282
Date: 12/11/19
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ATC Representative(s): A. Degeh / J.T
Project: ADL 2063 PO6 - Burien
Location: 12660 1st Ave S, Seattle, WA
Contact Information: (206) 781-1449
Project No: Z0760000 70
Task No:

**Well ID:** GW-15S
Weather: Overcast
Temperature: 45°

## Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): **Envirotape**
Interface Probe (Model/ID): **NA**
Water Quality Meter (Model/ID): **YSI 556 MPS**
Decontamination Method: **Alconox/DI Water**
Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump ___ Peristaltic Pump Other: GeoSub
3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 43'
Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

## Casing Volume Information

Casing Diameter (Circle): (2") 4" 6" Other
Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47

## Purging Calculations

Casing Volumes (CV):
WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

## Monitoring Measurements

Depth to LNAPL (feet): —
Total Well Depth (feet): 45.00
Depth to Water (DTW)(feet): 40.42
Water Column (WC)(feet): 4.58
LNAPL Thickness (ft): —
Purging Start Time: 1435

## Purging Data

| Time (24 Hours) | DTW (Feet) | Cum. Vol. Purged (Gallons) | Temp (°C) (± 1°) | Specific Cond. (uS/cm) (± 5%) | Turbidity NTU | Dissolved Oxygen (mg/L) (± 10%) | pH (± 0.1) | ORP (mV) (± 10 mV) | Other |
|---|---|---|---|---|---|---|---|---|---|
| 1445 | 41.32 | 0.150 | 13.80 | 397 | brown | 2.92 | 6.93 | 80.0 | — |
| 1448 | 41.45 | 0.65 | 14.30 | 392 | brown | 3.45 | 6.89 | 81.5 | — |
| 1451 | 41.50 | 0.75 | 14.50 | 389 | brown | 3.49 | 6.88 | 82.3 | — |
| | | | | | | | | | |
| | | | | | | | | | |

## Sample Data

Sample ID: GW-15S
Time of Sample: 1500

| Container Types, Volumes, & Quantities: | Filtered (yes/no) | Preservatives | Analytical Parameters |
|---|---|---|---|
| 6-40ml VOAs | NO | HCl | Gx, VOCs |
| 2-250ml PE | NO/Lab Filtered | HNO3 | Pb, Dissolved Pb |

## Well Recovery Data

Maximum Drawdown (DTW*m*)(feet): 1.08
Approximate Flow Rate (GPM):
Recovery Type: X Fast ____ Slow
% Recovery = 100 %
Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments: Water appears brown - turbid

# Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

| | | |
|---|---|---|
| ATC Branch: Seattle - 10282 | Date: | Page of |
| ATC Representative(s): GW-185 | Project: | |
| | Location: | |
| Contact Information: (206) 781-1449 | Project No: | Task No: |
| **Well ID:** | | |
| | Weather: | Temperature: |

## Purging & Sampling Instrumentation & Method

| | |
|---|---|
| Water Level Meter (Model/ID): **Envirotape** | Interface Probe (Model/ID): **NA** |
| Water Quality Meter (Model/ID): **YSI 556 MPS** | Decontamination Method: **Alconox/DI Water** |

Purging Method: _____ PVC Bailer _____ Vacuum Truck _____ Submersible Pump ___ Peristaltic Pump Other: _____

3 Well Volumes _____ Low Flow ____ Micro Purge _____ Intake Depth (feet below TOC) _____

Sampling Method: _____ Teflon Bailer _____ Disposable Bailer ____ Dedicated Tubing Other: _____

| Casing Volume Information | Purging Calculations |
|---|---|
| Casing Diameter **(Circle)**: **2"** **4"** **6"** **Other** | Casing Volumes (CV): |
| Casing Multiplier (CM)(gallons/foot): **0.16** **0.65** **1.47** | WC _____ x CM _____ = _____ (CV)(gal) x 3.0 CV (gal) = _____ PV |

## Monitoring Measurements

| | |
|---|---|
| Depth to LNAPL (feet): ~ | Total Well Depth (feet): 49.20 |
| Depth to Water (DTW)(feet): ~~44.70~~ 48.30 ST | Water Column (WC)(feet): ~~4.5~~ ~~0.9~~ 0.90 |
| LNAPL Thickness (ft): ~ | Purging Start Time: ~ ST |

## Purging Data

| Time (24 Hours) | DTW (Feet) | Cum. Vol. Purged (Gallons) | Temp (°C) (± 1°) | Specific Cond. (uS/cm) (± 5%) | Turbidity NTU | Dissolved Oxygen (mg/L) (± 10%) | pH (± 0.1) | ORP (mV) (± 10 mV) | Other |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

## Sample Data

| Sample ID: | Time of Sample: | Filtered (yes/no) | Preservatives | Analytical Parameters |
|---|---|---|---|---|
| Container Types, Volumes, & Quantities: | | | | |
| 6-40ml VOAs | | NO | HCl | Gx, VOCs |
| 2-250ml PE | | NO/Lab Filtered | HNO3 | Pb, Dissolved Pb |

## Well Recovery Data

| | |
|---|---|
| Maximum Drawdown (DTW*m*)(feet): | Approximate Flow Rate (GPM): |
| Recovery Type: _____ Fast _____ Slow | % Recovery = |

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments: Not enough water to sample

# Monitoring Well Purging and Sampling Log

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Revision 1.0
Jul-08

| | | |
|---|---|---|
| ATC Branch: Seattle - 10282 | Date: | Page of |
| ATC Representative(s): A. Degefa / J. T | Project: | |
| | Location: | |
| Contact Information: (206) 781-1449 | Project No: | Task No: |
| **Well ID:** GW-18D | Weather: | Temperature: |

## Purging & Sampling Instrumentation & Method

| | |
|---|---|
| Water Level Meter (Model/ID): **Envirotape** | Interface Probe (Model/ID): **NA** |
| Water Quality Meter (Model/ID): **YSI 556 MPS** | Decontamination Method: **Alconox/DI Water** |

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump ____ Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow ____ Micro Purge ____ Intake Depth (feet below TOC) ____

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer ____ Dedicated Tubing Other: ____

| Casing Volume Information | Purging Calculations |
|---|---|
| Casing Diameter **(Circle)**: **2"** **4"** **6"** **Other** | Casing Volumes (CV): |
| Casing Multiplier (CM)(gallons/foot): **0.16** **0.65** **1.47** | WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV |

## Monitoring Measurements

| | |
|---|---|
| Depth to LNAPL (feet): | Total Well Depth (feet): 80.90 |
| Depth to Water (DTW)(feet): 77.70 | Water Column (WC)(feet): 3.20 |
| LNAPL Thickness (ft): | Purging Start Time: 1555 |

## Purging Data

| Time (24 Hours) | DTW (Feet) | Cum. Vol. Purged (Gallons) | Temp (°C) (± 1°) | Specific Cond. (uS/cm) (± 5%) | Turbidity NTU | Dissolved Oxygen (mg/L) (± 10%) | pH (± 0.1) | ORP (mV) (± 10 mV) | Other |
|---|---|---|---|---|---|---|---|---|---|
| 1605 | 78.10 | 0.145 | 14.89 | 750 | clear | 4.33 | 7.15 | 73.6 | — |
| 1608 | 78.10 | 0.155 | 14.87 | 749 | » | 4.36 | 7.16 | 74.0 | — |
| 1611 | 78.20 | 0.175 | 14.85 | 736 | » | 4.39 | 7.19 | 76.3 | — |
| | | | | | | | | | |
| | | | | | | | | | |

## Sample Data

| Sample ID: GW-18D | Time of Sample: 1615 | Filtered (yes/no) | Preservatives | Analytical Parameters |
|---|---|---|---|---|
| Container Types, Volumes, & Quantities: | | | | |
| 6-40ml VOAs | | NO | HCl | Gx, VOCs |
| 2-250ml PE | | NO/Lab Filtered | HNO3 | Pb, Dissolved Pb |

## Well Recovery Data

| | |
|---|---|
| Maximum Drawdown (DTW*m*)(feet): 0.50 | Approximate Flow Rate (GPM): 140ml/min |
| Recovery Type: X Fast ____ Slow | % Recovery = 100% |

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

# Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

| | | |
|---|---|---|
| ATC Branch: Seattle - 10282 | Date: 12/12/19 | Page of |
| ATC Representative(s): A. Degele / J. T. | Project: ADC 2063 P66 Burien | |
| | Location: 12660 1st Ave S, Seattle, WA | |
| Contact Information: (206) 781-1449 | Project No: Z07600070 | Task No: |
| **Well ID:** GW-10D | Weather: Rain | Temperature: 45° |

## Purging & Sampling Instrumentation & Method

| | |
|---|---|
| Water Level Meter (Model/ID): **Envirotape** | Interface Probe (Model/ID): **NA** |
| Water Quality Meter (Model/ID): **YSI 556 MPS** | Decontamination Method: **Alconox/DI Water** |

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump ____ Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow ____ Micro Purge ____ Intake Depth (feet below TOC) 81.0'

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: Geosub.

## Casing Volume Information

Casing Diameter (Circle): (2") 4" 6" Other

Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47

## Purging Calculations

Casing Volumes (CV):

WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

## Monitoring Measurements

| | |
|---|---|
| Depth to LNAPL (feet): — | Total Well Depth (feet): 93.10 |
| Depth to Water (DTW)(feet): 79.00 | Water Column (WC)(feet): 14.10 |
| LNAPL Thickness (ft): — | Purging Start Time: 10:34 |

## Purging Data

| Time (24 Hours) | DTW (Feet) | Cum. Vol. Purged (Gallons) | Temp (°C) (± 1°) | Specific Cond. (uS/cm) (± 5%) | Turbidity NTU | Dissolved Oxygen (mg/L) (± 10%) | pH (± 0.1) | ORP (mV) (± 10 mV) | Other |
|---|---|---|---|---|---|---|---|---|---|
| 10:44 | 79.0 | 0.70 | 13.28 | 244 | Cloudy | 7.82 | 7.07 | 119.9 | — |
| 10:47 | 79.0 | 0.90 | 13.33 | 248 | " | 7.76 | 7.00 | 119.4 | — |
| 10:50 | 79.0 | 1.20 | 13.32 | 250 | " | 7.71 | 6.97 | 120.0 | — |
| | | | | | | | | | |
| | | | | | | | | | |

## Sample Data

| | | | | |
|---|---|---|---|---|
| Sample ID: GW-10D | Time of Sample: 10:55 ~~10:54~~ | Filtered (yes/no) | Preservatives | Analytical Parameters |
| Container Types, Volumes, & Quantities: | | | | |
| 6-40ml VOAs ✓ | | NO | HCl | Gx, VOCs |
| 2-250ml PE ✓ + 2 HNO3 poly. | | NO/Lab Filtered | HNO3 | Pb, Dissolved Pb |

## Well Recovery Data

| | |
|---|---|
| Maximum Drawdown (DTW*m*)(feet): 0.0 | Approximate Flow Rate (GPM): |
| Recovery Type: X Fast ____ Slow | % Recovery = 100% |

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

# Monitoring Well Purging and Sampling Log

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| | | |
|---|---|---|
| ATC Branch: Seattle - 10282 | Date: 12/12/19 | Page of |
| ATC Representative(s): A. Degelin / J. T | Project: ADC 2063 P&B - Burien | |
| | Location: 12660 1st Ave S, Seattle, WA | |
| Contact Information: (206) 781-1449 | Project No: Z0760002070 | Task No: |
| **Well ID:** GW-14D | Weather: Rain | Temperature: 45° |

## Purging & Sampling Instrumentation & Method

| | |
|---|---|
| Water Level Meter (Model/ID): **Envirotape** | Interface Probe (Model/ID): **NA** |
| Water Quality Meter (Model/ID): **YSI 556 MPS** | Decontamination Method: **Alconox/DI Water** |

Purging Method: _____ PVC Bailer _____ Vacuum Truck _____ Submersible Pump ___ Peristaltic Pump Other: _____

3 Well Volumes _____ Low Flow ____ Micro Purge _____ Intake Depth (feet below TOC) _____

Sampling Method: _____ Teflon Bailer _____ Disposable Bailer ____ Dedicated Tubing Other: _____

| Casing Volume Information | | | | Purging Calculations |
|---|---|---|---|---|
| Casing Diameter (Circle): | 2" | 4" | 6" Other | Casing Volumes (CV): |
| Casing Multiplier (CM)(gallons/foot): | 0.16 | 0.65 | 1.47 | WC _____ x CM _____ = _____ (CV)(gal) x 3.0 CV (gal) = _____ PV |

## Monitoring Measurements

| | |
|---|---|
| Depth to LNAPL (feet): | Total Well Depth (feet): 80.20 |
| Depth to Water (DTW)(feet): 77.30 | Water Column (WC)(feet): |
| LNAPL Thickness (ft): | Purging Start Time: 1150 |

## Purging Data

| Time (24 Hours) | DTW (Feet) | Cum. Vol. Purged (Gallons) | Temp (°C) (± 1°) | Specific Cond. (uS/cm) (± 5%) | Turbidity NTU | Dissolved Oxygen (mg/L) (± 10%) | pH (± 0.1) | ORP (mV) (± 10 mV) | Other |
|---|---|---|---|---|---|---|---|---|---|
| 1200 | 78.80 | 0.35 | 14.35 | 637 | turbid | 1.98 | 7.87 | -92.6 | — |
| 1203 | 78.80 | 0.55 | 13.93 | 636 | clear | 1.89 | 7.89 | -86.5 | — |
| 1206 | 78.80 | 0.75 | 13.72 | 632 | " | 1.94 | 7.94 | -79.3 | — |
| | | | | | | | | | |
| | | | | | | | | | |

## Sample Data

| Sample ID: GW-14D | Time of Sample: 1215 | Filtered (yes/no) | Preservatives | Analytical Parameters |
|---|---|---|---|---|
| Container Types, Volumes, & Quantities: | | | | |
| 6-40ml VOAs | | NO | HCl | Gx, VOCs |
| 2-250ml PE | | NO/Lab Filtered | HNO3 | Pb, Dissolved Pb |

## Well Recovery Data

| | |
|---|---|
| Maximum Drawdown (DTW*m*)(feet): 1.50 | Approximate Flow Rate (GPM): 130 mL/min |
| Recovery Type: X Fast _____ Slow | % Recovery = 100% |

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

# Monitoring Well Purging and Sampling Log

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Revision 1.0
Jul-08

ATC Branch: Seattle - 10282
Date: 12/12/19
Page 1 of

ATC Representative(s): A. Degefa / J. T
Project: ADC 2063 P66 – Burien
Location: 12660 1st Ave S, Seattle, WA
Contact Information: (206) 781-1449
Project No: 7076000770
Task No:

**Well ID:** GW-145

Weather: Rain
Temperature: 45°

## Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): **Envirotape**
Interface Probe (Model/ID): **NA**
Water Quality Meter (Model/ID): **YSI 556 MPS**
Decontamination Method: **Alconox/DI Water**

Purging Method: ____ PVC Bailer ____ Vacuum Truck X Submersible Pump ____ Peristaltic Pump Other: ____
3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) ~47.00'
Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

## Casing Volume Information

Casing Diameter (Circle): (2") 4" 6" Other
Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47

## Purging Calculations

Casing Volumes (CV):
WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

## Monitoring Measurements

Depth to LNAPL (feet): —
Total Well Depth (feet): 50.50
Depth to Water (DTW)(feet): 45.00
Water Column (WC)(feet): 5.50
LNAPL Thickness (ft): —
Purging Start Time: 1257

## Purging Data

| Time (24 Hours) | DTW (Feet) | Cum. Vol. Purged (Gallons) | Temp (°C) (± 1°) | Specific Cond. (uS/cm) (± 5%) | Turbidity NTU | Dissolved Oxygen (mg/L) (± 10%) | pH (± 0.1) | ORP (mV) (± 10 mV) | Other |
|---|---|---|---|---|---|---|---|---|---|
| 1307 | 46.40 | 0.5 | 14.62 | 412 | Cloudy | 0.52 | 7.97 | -77.9 | — |
| 1310 | 46.50 | 0.65 | 14.87 | 420 | Cloudy | 0.52 | 7.72 | -30 | |
| 1313 | 46.60 | 0.85 | 14.92 | 426 | Cloudy | 0.57 | 7.57 | -58.5 | |
| | | | | | | | | | |
| | | | | | | | | | |

## Sample Data

Sample ID: GW-145
Time of Sample: 1320

Container Types, Volumes, & Quantities:

| | Filtered (yes/no) | Preservatives | Analytical Parameters |
|---|---|---|---|
| 6-40ml VOAs | NO | HCl | Gx, VOCs |
| 2-250ml PE | NO/Lab Filtered | HNO3 | Pb, Dissolved Pb |

## Well Recovery Data

Maximum Drawdown (DTW*m*)(feet): 1.60
Approximate Flow Rate (GPM): 140 ml/min
Recovery Type: X Fast ____ Slow
% Recovery = 100 %

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments: Slight sheen Observed. Smelly water.
ORP parameter erratic, not stable over purge period

# APPENDIX C

# NON-HAZARDOUS WASTE DOCUMENTATION

475350

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | N/A | 2 | (800) 337-7455 | P66 AOC 2063 - 020420-01 |

5. Generator's Name and Mailing Address: Phillips 66, 76 Broadway, Sacramento, CA 95818
Generator's Phone: (916) 558-7600 Attn: Ed Ralston

Generator's Site Address (if different than mailing address): Phillips 66 Burlington (AOC 2063), 12650 First Ave. S, Burien, WA 98168

6. Transporter 1 Company Name: DH Environmental, Inc. — U.S. EPA ID Number: WAH000047217

7. Transporter 2 Company Name: Chemical Waste Management of the Northwest — U.S. EPA ID Number: ORD089452353

8. Designated Facility Name and Site Address: Chemical Waste Management of the Northwest, 17629 Cedar Springs Lane, Arlington, OR 97812 — U.S. EPA ID Number: ORD089452353
Facility's Phone: (541) 454-2648

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Material Not Regulated by DOT (non-regulated DW water) | 001 | DM | 240 | P | X096 |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

1. ORS2063 - STA001 AOC (2063)

WOMXU 970900

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Elisabeth Silver — Signature: Elisabeth Silver — Month: 2 Day: 7 Year: 20

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.:
Transporter Signature (for exports only):

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Jacob Briere — Signature: — Month: 2 Day: 7 Year: 20

Transporter 2 Printed/Typed Name: J Pinela — Signature: — Month: 2 Day: 7 Year: 20

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month: Day: Year:

got Copy

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Tom Dunlap — Signature: — Month: 2 Day: 19 Year: 20

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

475-350

| NON-HAZARDOUS WASTE MANIFEST (Continuation Sheet) | 19. Generator ID Number | 20. Page | 21. Waste Tracking Number |
|---|---|---|---|
| | N/A | of 2 | P66 AOC2083-020420 |

22. Generator's Name: PHILLIPS 66 - SEATTLE AOC 2083

23. Transporter 2 Company Name: UPRR — U.S. EPA ID Number: MED001792910

24. Transporter ____ Company Name: COLUMBIA RIDGE LANDFILL — U.S. EPA ID Number: ORD987173457

| | 25. Waste Shipping Name and Description | 26. Containers No. | 26. Containers Type | 27. Total Quantity | 28. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 8 | | | | | | |
| 9 | | | | | | |
| 10 | | | | | | |
| 11 | | | | | | |
| 12 | | | | | | |
| 13 | | | | | | |
| 14 | | | | | | |
| 15 | | | | | | |
| 16 | | | | | | |
| 17 | | | | | | |

GENERATOR

29. Special Handling Instructions and Additional Information
CONTAINER # WMXU 970900

TRANSPORTER

30. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name: JR — Signature: [signature] — Month: 2 Day: 15 Year: 20

31. Transporter 4 Acknowledgment of Receipt of Materials
Printed/Typed Name: [illegible] — Signature: [signature] — Month: 2 Day: 15 Year: 20

DESIGNATED FACILITY

32. Discrepancy