



6347 Seaview Avenue Northwest  
Seattle, Washington 98107  
Telephone 206-781-1449  
Fax 206-781-1543  
[www.oneatlas.com](http://www.oneatlas.com)

---

**GROUNDWATER MONITORING REPORT**  
**(Fourth Quarter 2023 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:**  
**Mike Warfel**  
**Washington State Department of Ecology**  
**15700 Dayton Avenue North**  
**Shoreline, Washington 98133**

**Submitted on behalf of:**  
**Audrey Bonafede**  
**Phillips 66 Company**  
**Remediation Management**  
**3900 Kilroy Airport Way, Suite 210**  
**Long Beach, California 90806**

**Submitted by:**  
**Atlas Technical Consultants**  
**6347 Seaview Avenue Northwest**  
**Seattle, Washington 98107**

**Atlas Project No. Z076000087**  
**May 7, 2024**

A handwritten signature in black ink that reads "Maraley Santos".

**Maraley Santos**  
Staff Scientist

A handwritten signature in black ink that reads "Elisabeth Silver".

**Elisabeth Silver, LG**  
Senior Project Manager



---

**SITE INFORMATION:**

---

Atlas Contact Person: Elisabeth Silver, LG  
Date of previous sampling event: 09/27-28/2023  
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 12/05-06/2023:**

---

Date(s) monitored and/or sampled: 12/05-06/2023  
Wells monitored: Eighteen: GW-8S, GW-8D, GW-10S, GW-10D, GW-11D, GW-13S, GW-13D, GW-14S, GW-14D, GW-15S, GW-15D, GW-16S, GW-16D, GW-17S, GW-17D, GW-18S, GWR-18S, and GWR-18D  
Wells sampled: Seven: MW-10D, GW-13S, GW-13D, GW-14S, GW-15S, GW-15D, and GWR-18D  
Purging method: Wells were purged prior to sampling by 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 12/05-06/2023:**

---

Minimum depth to groundwater (feet below top of casing [TOC]): 31.82 (GW-10S – shallow water bearing zone)  
Maximum depth to groundwater (feet below TOC): 78.86 (GW-10D – deep water bearing zone)  
Average groundwater elevation (feet): 372.17 (shallow water bearing zone – GW-8S, GW-10S, GW-13S, GW-14S, GW-15S, GW-16S, GW-17S, GW-18S, and GWR-18S); 339.38 (deep water bearing zone – GW-8D, GW-10D, GW-11D, GW-13D, GW-14D, GW-15D, GW-16D, GW-17D, and GWR-18D)  
Change in average groundwater elevation since previous monitoring event (feet): -0.12 (shallow water bearing zone)  
-0.37 (deep water bearing zone)  
Approximate groundwater gradient/flow direction: 0.133 feet per foot (ft./ft.) Northwest toward GW-18S, 0.328 ft./ft. and 0.133 ft./ft. West toward GW-17S (shallow water bearing zone); 0.006 ft./ft. West-Northwest to 0.018 ft./ft. South-Southwest (deep water bearing zone)  
Previous groundwater gradient/flow direction (12/14-16/2022): 0.470 feet per foot (ft./ft.) East-Northeast toward GWR-18S, 0.328 ft./ft. West, and 0.134 ft./ft. North-Northwest toward GWR-18S (shallow water bearing zone); 0.019 ft./ft. South and 0.005 ft./ft. East (deep water bearing zone)

---

---

**GROUNDWATER CONDITIONS 12/05-06/2023:**


---

Minimum dissolved phase gasoline-range hydrocarbon concentration excluding “non-detects” (micrograms per liter [ $\mu\text{g}/\text{L}$ ]):	<u>93.7J (GW-15S – shallow water bearing zone)</u>
Maximum dissolved phase gasoline-range hydrocarbon concentration ( $\mu\text{g}/\text{L}$ ):	<u>44,700 (GW-14S – shallow water bearing zone)</u>
Maximum dissolved phase gasoline-range hydrocarbon concentration ( $\mu\text{g}/\text{L}$ ) observed previous sampling event (September 2023):	<u>36,900 (GW-14S – shallow water bearing zone)</u>
Minimum dissolved phase benzene concentration excluding “non-detects” (micrograms per liter [ $\mu\text{g}/\text{L}$ ]):	<u>0.58J (GW-15S – shallow water bearing zone)</u>
Maximum dissolved phase benzene concentration ( $\mu\text{g}/\text{L}$ ):	<u>199 (GW-14D – deep water bearing zone)</u>
Maximum dissolved phase benzene concentration ( $\mu\text{g}/\text{L}$ ) observed previous sampling event (September 2023):	<u>406 (GW-14D – deep water bearing zone)</u>
Minimum dissolved phase toluene concentration excluding “non-detects” (micrograms per liter [ $\mu\text{g}/\text{L}$ ]):	<u>0.24J (GW-10D – deep water bearing zone)</u>
Maximum dissolved phase toluene concentration ( $\mu\text{g}/\text{L}$ ):	<u>2340 (GW-14S – shallow water bearing zone)</u>
Maximum dissolved phase toluene concentration ( $\mu\text{g}/\text{L}$ ) observed previous sampling event (September 2023):	<u>1750 (GW-14S – shallow water bearing zone)</u>
Minimum dissolved phase ethylbenzene concentration excluding “non-detects” (micrograms per liter [ $\mu\text{g}/\text{L}$ ]):	<u>0.90J (GWR-18D – deep water bearing zone)</u>
Maximum dissolved phase ethylbenzene concentration ( $\mu\text{g}/\text{L}$ ):	<u>1580 (GW-14S – shallow water bearing zone)</u>
Maximum dissolved phase ethylbenzene concentration ( $\mu\text{g}/\text{L}$ ) observed previous sampling event (September 2023):	<u>1640 (GW-14S – shallow water bearing zone)</u>
Minimum dissolved phase total xylenes concentration excluding “non-detects” (micrograms per liter [ $\mu\text{g}/\text{L}$ ]):	<u>8.8 (GW-15S – shallow water bearing zone)</u>
Maximum dissolved phase total xylenes concentration ( $\mu\text{g}/\text{L}$ ):	<u>7,020 (GW-14S – shallow water bearing zone)</u>
Maximum dissolved phase total xylenes concentration ( $\mu\text{g}/\text{L}$ ) observed previous sampling event (September 2023):	<u>7230 (GW-14S – shallow water bearing zone)</u>
Minimum total lead concentration excluding “non-detects” ( $\mu\text{g}/\text{L}$ ):	<u>2.9J (GW-14S – shallow water bearing zone)</u>
Maximum total lead concentration ( $\mu\text{g}/\text{L}$ ):	<u>6.9J (GWR-18D – deep water bearing zone)</u>
Maximum total lead concentration ( $\mu\text{g}/\text{L}$ ) observed previous sampling event (September 2023):	All wells sampled were “non-detect”
Minimum dissolved lead concentration excluding “non-detects” ( $\mu\text{g}/\text{L}$ ):	<u>2.8J (GW-14S – shallow water bearing zone)</u>
Maximum dissolved lead concentration ( $\mu\text{g}/\text{L}$ ):	<u>2.8J (GW-14S – shallow water bearing zone)</u>
Maximum dissolved lead concentration ( $\mu\text{g}/\text{L}$ ) observed previous sampling event (September, 2023):	All wells sampled were “non-detect”



---

#### **ADDITIONAL INFORMATION AND COMMENTS:**

---

##### **Fourth Quarter 2023:**

During the December 2023 groundwater monitoring and sampling event, eighteen monitoring wells were gauged, including GW-8S, GW-8D, GW-10S, GW-10D, GW-11D, GW-13S, GW-13D, GW-14S, GW-14D, GW-15S, GW-15D, GW-16S, GW-16D, GW-17S, GW-17D, GW-18S, GWR-18S, and GWR-18D. All of the eighteen monitoring wells were gauged before any purging took place for the most accurate representation of the current groundwater conditions. Refer to the attached Figure 1 for the December 2023 groundwater contour map of the shallow water bearing zone. Refer to the attached Figure 2 for the December 2023 groundwater contour map of the deep water bearing zone.

Seven of the eighteen monitoring wells were sampled using low-flow purging methods, including GW-10D, GW-13S, GW-13D, GW-14S, GW-15S, GW-15D, and GWR-18D. Monitoring wells GW-14D, GW-18S, and GWR-18S were effectively dry and did not have sufficient water to obtain samples. Refer to the attached Table 1 for a summary of historical groundwater gauging and sampling data at the site.

Purge water and equipment decontamination water was collected in a 30-gallon drum and stored on site pending removal to an off-site facility.

##### **Shallow Water Bearing Zone:**

Within the shallow water bearing zone, three wells were sampled. Based on the analytical results from this event, **gasoline range hydrocarbons** were detected above the Model Toxics Control Act (MTCA) Method A Cleanup Level (CUL) in GW-13S and GW-14S at concentrations of 1,510 and 44,700 µg/L, respectively. Gasoline range hydrocarbons were detected below the MTCA Method A CUL in GW-15S at a concentration of 93.7J µg/L and were not detected in GW-16S. **Benzene** was detected above the MTCA Method A CUL in GW-14S at a concentration of 199 µg/L. Benzene was detected below the MTCA Method A CUL in GW-13S and GW-15S at concentrations of 2.6 and 0.58J µg/L, respectively. **Toluene** was detected above the MTCA Method A CUL in GW-14S at a concentration of 2,340 µg/L. Toluene was detected below the MTCA Method A CUL in GW-13S and GW-15S at concentrations of 2.5 and 0.53J µg/L, respectively. **Ethylbenzene** was detected above the MTCA Method A CUL in GW-14S at a concentration of 1,580 µg/L. Ethylbenzene was detected below the MTCA Method A CUL in GW-13S and GW-15S at concentrations of 37.8 and 1.1 µg/L, respectively. **Total xylenes** were detected above the MTCA Method A CUL in GW-14S at a concentration of 7,020 µg/L. Total xylenes were detected below the MTCA Method A CUL in GW-13S and GW-15S at concentrations of 44.7 and 8.8 µg/L, respectively. **Total lead** was detected below the MTCA Method A CUL in GW-14S at a concentration of 2.9J µg/L. Total lead was not detected in GW-13S and GW-15S. **Dissolved lead** was detected below the MTCA Method A CUL in GW-14S at a concentration of 2.8J µg/L. Dissolved lead was not detected in GW-13S and GW-15S.

##### **Deep Water Bearing Zone:**

Within the deep water bearing zone, four wells were sampled. Based on the analytical results from this event, **gasoline range hydrocarbons** were detected below the MTCA Method A CUL in GWR-18D at a concentration of 739 µg/L and were not detected in the other deep water bearing zone wells sampled. **Benzene** was detected above the MTCA Method A CUL in GWR-18D at concentrations of 17.7 µg/L. Benzene was not detected in the other deep water bearing zone wells sampled. **Toluene** was detected below the MTCA Method A CUL in GW-10D and GWR-18D at concentrations of 0.24J and 0.37J µg/L, respectively. Toluene was not detected in the other deep water bearing zone wells sampled. **Ethylbenzene** was detected below the MTCA Method A CUL in GWR-18D at a concentration of 0.90J µg/L. Ethylbenzene was not detected in the other deep water bearing zone wells sampled. **Total xylenes** were not detected in any of the deep water bearing zones sampled. **Total lead** was detected below the MTCA Method A CUL in GW-13D and GWR-18D at concentrations of 3.5J and 6.9J µg/L, respectively. Total lead was not detected in the other deep water bearing zone wells sampled. **Dissolved lead** was not detected in any of the deep water bearing zone wells sampled.

---

#### **ATTACHMENTS:**

---

Figure 1 Groundwater Potentiometric Map – Shallow Water Bearing Zone (12/05/2023)

Figure 2 Groundwater Potentiometric Map – Deep Water Bearing Zone (12/05/2023)

Figure 3 Groundwater Analytical Results Map (12/05-06/2023)

Table 1 Summary of Historical Groundwater Gauging and Laboratory Analytical Data

Appendix A Laboratory Analytical Data Report and Chain of Custody Documents

Appendix B Field Reports / Groundwater Gauging and Sampling Logs

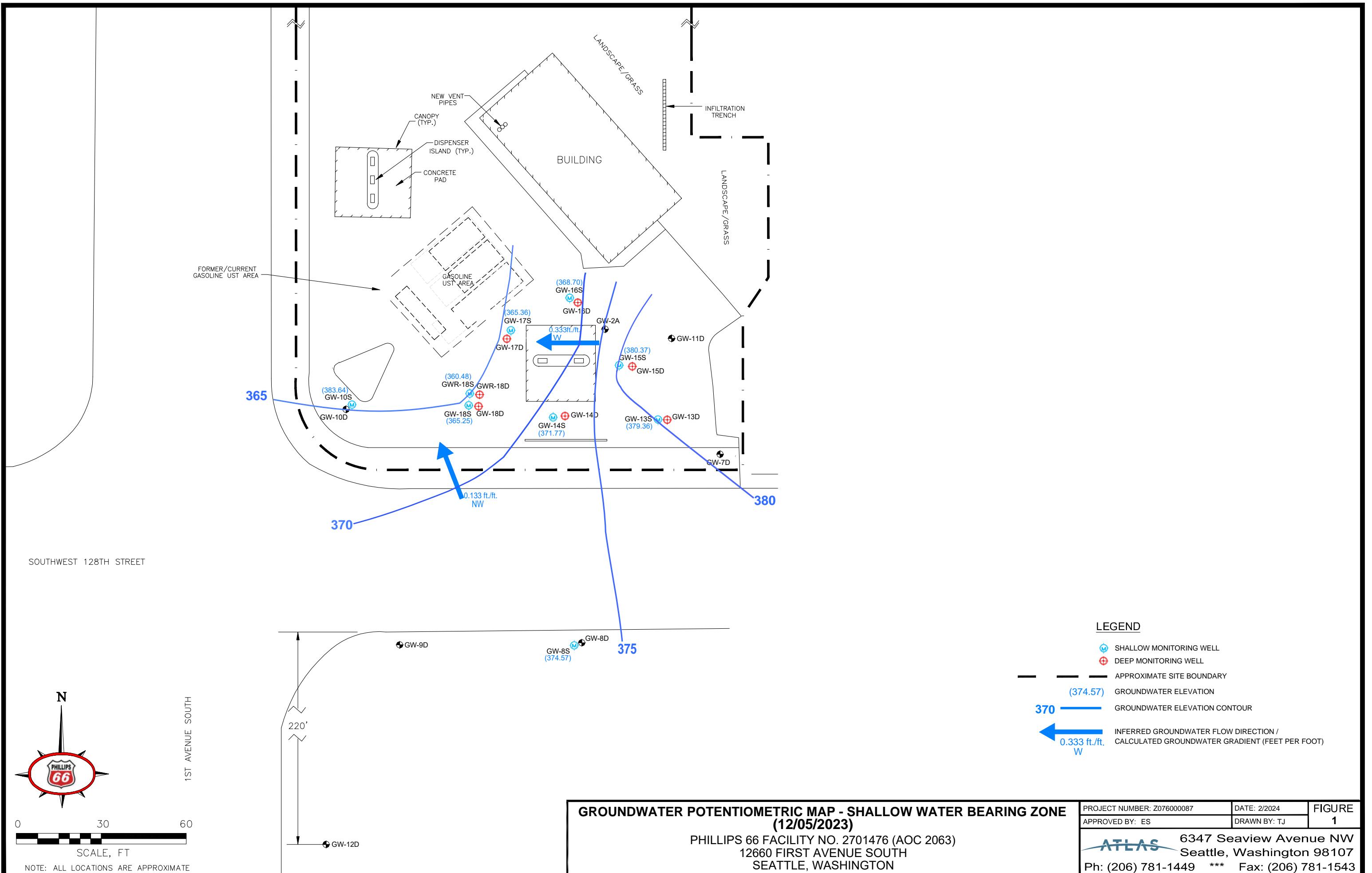
Appendix C Waste Disposal Documentation

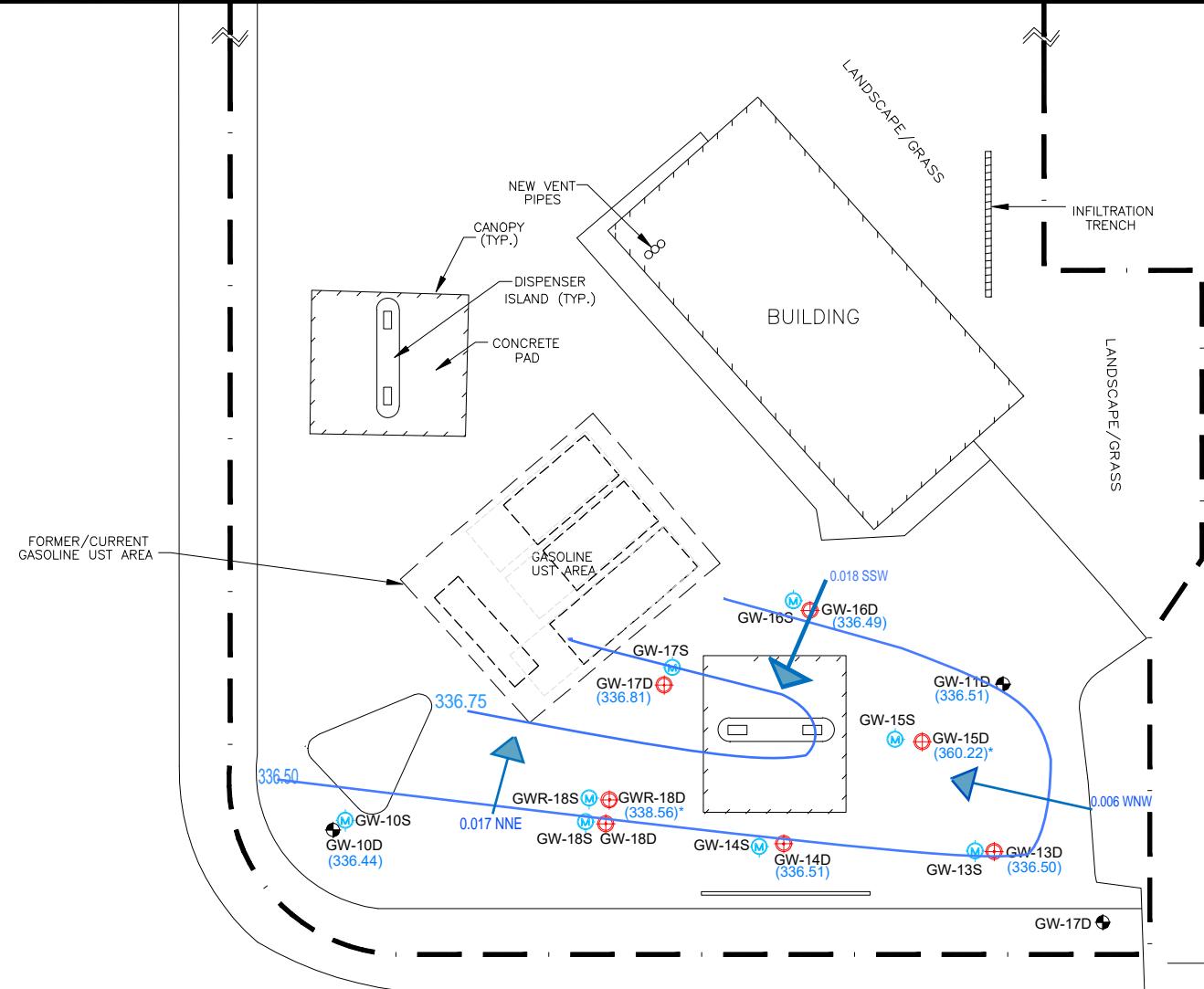


---

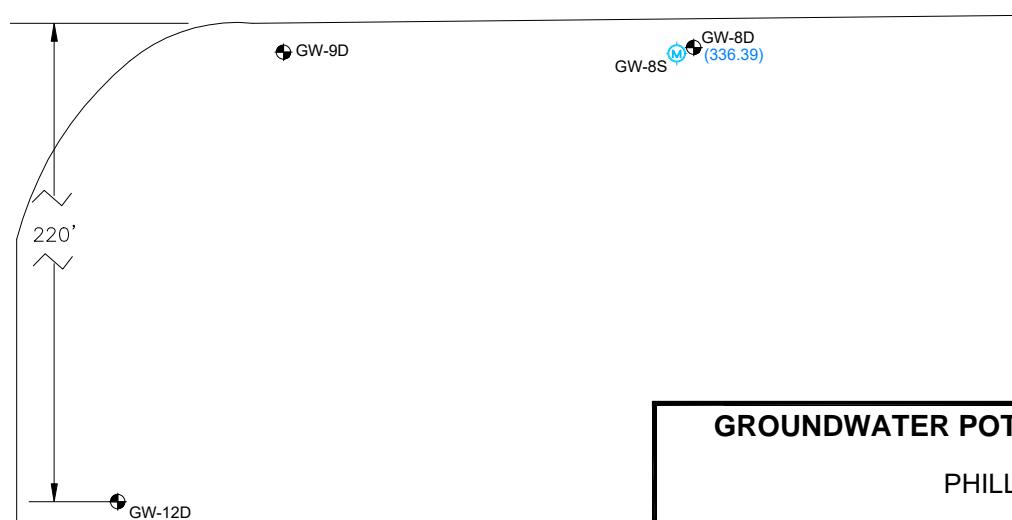
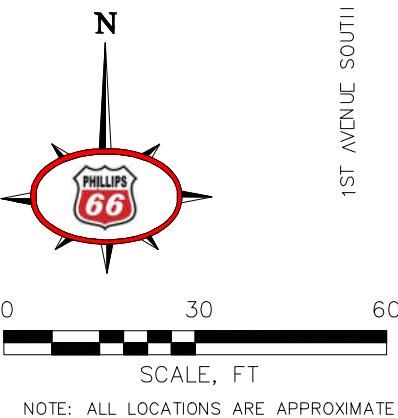
## **FIGURES**







SOUTHWEST 128TH STREET

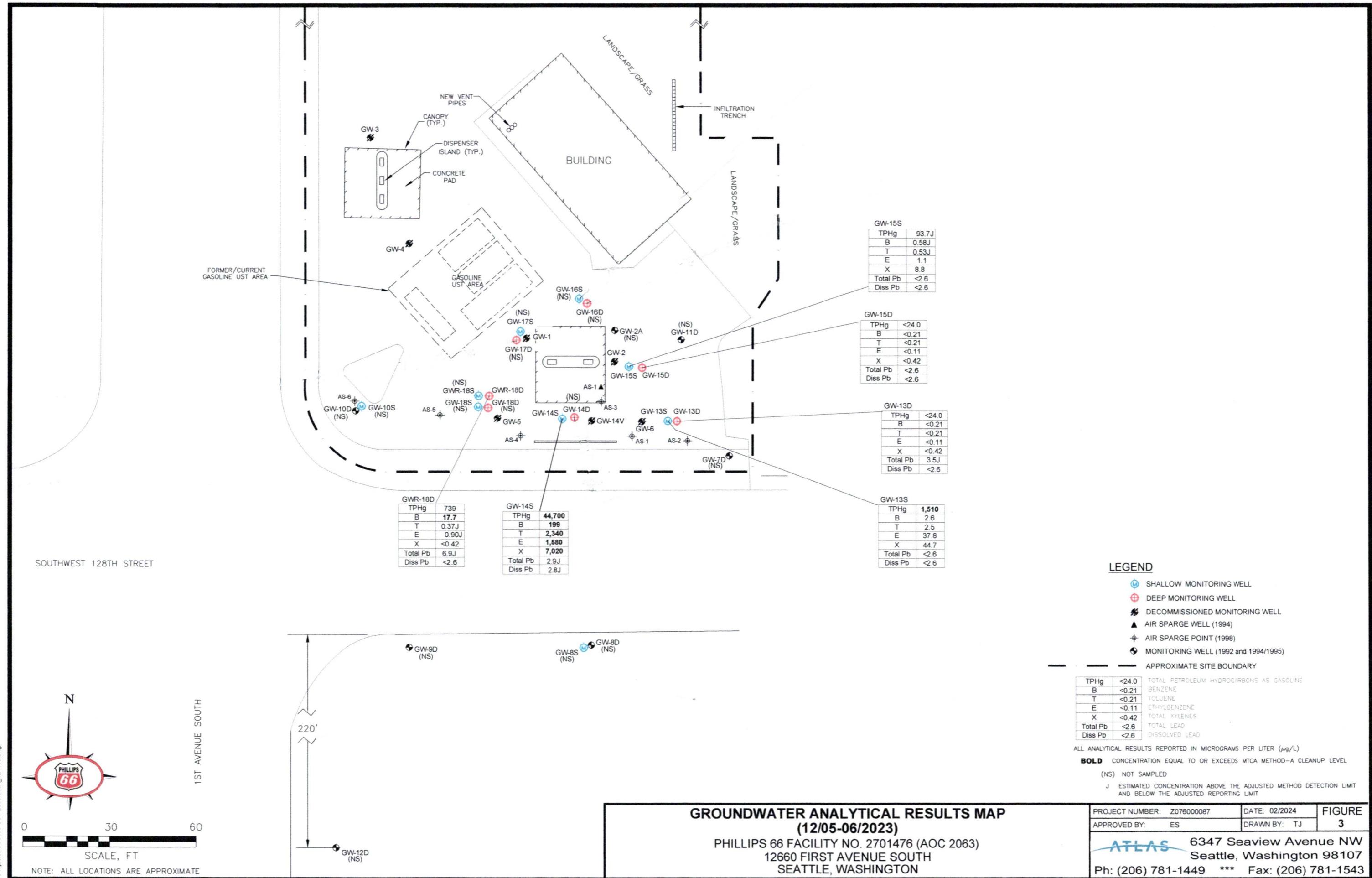


**GROUNDWATER POTENSIOMETRIC MAP - DEEP WATER BEARING ZONE  
(12/05/2023)**  
PHILLIPS 66 FACILITY NO. 2701476 (AOC 2063)  
12660 FIRST AVENUE SOUTH  
SEATTLE, WASHINGTON

PROJECT NUMBER: Z07600087	DATE: 2/2024	FIGURE
APPROVED BY: ES	DRAWN BY: TJ	2
ATLAS	6347 Seaview Avenue NW Seattle, Washington 98107 Ph: (206) 781-1449 *** Fax: (206) 781-1543	

**LEGEND**

- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- APPROXIMATE SITE BOUNDARY
- (336.81) GROUNDWATER ELEVATION
- 336.50 GROUNDWATER ELEVATION CONTOUR
- 0.167 ft./ft. WNW INFERRED GROUNDWATER FLOW DIRECTION
- 0.167 ft./ft. WNW CALCULATED GROUNDWATER GRADIENT (FEET PER FOOT)
- (360.22)\* GROUNDWATER ELEVATION OMITTED FROM CONTOURING





---

**TABLE**



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

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

Well ID TOC Elevation	Sample Date	DTW (feet)	LPH (feet)	GW Elev. (feet)	TPH-G (µg/L)	TPH-D (µg/L)	TPH-O (µg/L)	TPH-D + 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)	Chloroform (µg/L)	Benzo(a) pyrene (µg/L)	1,2 DCA (µg/L)	EDB (µg/L)	1,1 DCE (µg/L)	1,2 DCE (µg/L)	PCE (µg/L)	TCE (µg/L)	
<b>MTCA Method A Cleanup Levels</b>				1,000/800 <sup>a</sup>	500	500	500	5	1,000	700	1,000	20	15	15	1.4	0.1	5	0.01	NA	5	NA	5	5	
05/24/00	NM	0.00	NE																					
09/11/00 <sup>NP</sup>	46.35	0.00	52.97	55,000	--	--	--	2,620	1,910	410	7,380	--	--	--	--	--	--	--	--	--	--	--	--	
11/27/00	43.56	Trac	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	--	--	< 1.00	--	--	--	--	< 1.00	< 1.00		
05/16/01	42.48	0.00	56.84	83,300	--	--	--	4,620	8,480	1,060	10,200	--	248	--	--	--	--	--	--	--	--	--	--	
08/30/01 <sup>NP</sup>	42.07	0.01	57.26																					
11/19/01	NM	0.00	NE																					
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 <sup>NP</sup>	45.86	0.00	53.46	35,100	--	--	--	3,910	4,020	248	4,760	--	26.8	14.6	--	--	--	--	--	--	--	--	--	
11/14/03 <sup>NP C</sup>	44.35	0.00	54.97	1,760	--	--	--	96.2	11.0	1.0	73.1	--	<5.00	<5.00	--	--	--	--	--	--	--	--	--	
5/13/04 <sup>NP</sup>	28.97	0.00	70.35	7,370	--	--	--	446	705	30.4	983	--	8.28	<5.00	--	--	--	--	--	--	--	--	--	
12/9/04 <sup>NP</sup>	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	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	3,005	1,600	130	560	3,700	<1	1.34	--	--	--	<1	--	<1	<1	<1	<1	<1	
05/05/09	36.00	0.00	377.94	40,800	1,200	<420	1,410	3,590 2n	1,760	634	4,590	<1.0	3.3	<1.0	--	--	92.4	0.094	<1.0	<2.0	<1.0	<1.0	<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	--	--	--	--	--	--	--	--	--	
<b>GW-2</b>	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	--	--	--	--	--	--	--	--	--
(Cont.)	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														

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

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

Well ID TOC Elevation	Sample Date	DTW (feet)	LPH (feet)	GW Elev. (feet)	TPH-G (µg/L)	TPH-D (µg/L)	TPH-O (µg/L)	TPH-D + 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)	Chloroform (µg/L)	Benzo(a) pyrene (µg/L)	1,2 DCA (µg/L)	EDB (µg/L)	1,1 DCE (µg/L)	1,2 DCE (µg/L)	PCE (µg/L)	TCE (µg/L)
MTCA Method A Cleanup Levels					1,000/800 <sup>a</sup>	500	500	500	5	1,000	700	1,000	20	15	15	1.4	0.1	5	0.01	NA	5	NA	5
416.79	05/19/08	DRY	0.00	NE																			
	08/18/08	DRY	0.00	NE																			
	11/17/08	DRY	0.00	NE																			
	02/04/09	79.15	0.00	337.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	5/4/09	DRY	0.00	NE																			
	08/03/09	DRY	0.00	NE																			
	11/03/09	79.10	0.00	337.69																			
	02/08/10	DRY	0.00	NE																			
	05/03/10	DRY	0.00	NE																			
	09/07/10	DRY	0.00	NE																			
	12/01/10	DRY	0.00	NE																			
	02/10/11	DRY	0.00	NE																			
<b>GW-4</b>	05/18/11	78.55	0.00	338.24																			
(Cont.)	09/02/11	77.64	0.00	339.15																			
	12/07/11	78.21	0.00	338.58																			
	02/23/12	DRY	0.00	NE																			
	05/22/12	DRY	0.00	NE																			
	08/01/12	NM	0.00	NE																			
	12/19/14	DRY	0.00	NE																			
	04/29/15	DRY	0.00	NE																			
	07/23/15	DRY	0.00	NE																			
	10/15/15	DRY	0.00	NE																			
	09/27/16	DRY	0.00	NE																			
	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	0.00	339.42																			
	10/25/18																						
<b>GW-5</b>	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	--	--	--	--	--	--	--	--	
	12/12/96	74.99	0.00	23.99	88,000	--	--	--	2,200	4,700	43	16,000	--	42	--	--	--	--	--	--	--	--	
	03/24/97	24.90	0.00	74.08	7,800	--	--	--	690	790	13	1,300	--	34	--	--	--	--	--	--	--	--	
	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 <sup>NP</sup>	73.10	0.00	25.88	65,000	--	--	--	6,800	10,000	990	5,500	--	3	--	--	--	--	--				

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

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

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

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

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

Well ID TOC Elevation	Sample Date	DTW (feet)	LPH (feet)	GW Elev. (feet)	TPH-G (µg/L)	TPH-D (µg/L)	TPH-O (µg/L)	TPH-D + 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)	Chloroform (µg/L)	Benzo(a) pyrene (µg/L)	1,2 DCA (µg/L)	EDB (µg/L)	1,1 DCE (µg/L)	1,2 DCE (µg/L)	1,2 DCP (µg/L)	PCE (µg/L)	TCE (µg/L)
<b>MTCA Method A Cleanup Levels</b>				1,000/800 <sup>a</sup>	500	500	500	5	1,000	700	1,000	20	15	15	1.4	0.1	5	0.01	NA	5	NA	5	5	5
	07/15/21	78.40	0.00	336.90	<31.6	--	--	--	<0.0941	0.477J	1.67	10.7	--	<2.6	<2.6	--	--	--	--	--	--	--	--	--
	10/08/21	78.58	0.00	336.72	<100	--	--	--	<1.00	<1.00	<1.00	<3.00	--	<10.0	<10.0	--	--	--	--	--	--	--	--	--
	12/17/21	79.52	0.00	335.78	<42.8	--	--	--	<0.10	<0.10	<0.11	<0.20	--	<2.6	<2.6	--	--	--	--	--	--	--	--	--
<b>GW-10D</b> <b>(Cont.)</b>	03/30/22	78.78	0.00	336.52	<22.2	--	--	--	<0.10	<0.10	<0.11	<0.20	--	<2.6	<2.6	--	--	--	--	--	--	--	--	--
	06/27/22	75.46	0.00	339.84	<31.6	--	--	--	<0.10	0.14J	0.14J	0.52J	--	<2.6	<2.6	0.50J	--	--	--	--	--	--	--	--
	09/21/22	77.51	0.00	337.79	40.6J	--	--	--	<0.10	0.14J	0.14J	0.52J	--	<2.6	<2.6	0.54J	--	--	--	--	--	--	--	--
	12/16/22	78.49	0.00	336.81	<22.6	--	--	--	<0.10	0.12J	<0.11	<0.20	--	<2.6	<2.6	0.37J	<0.011	--	--	--	--	--	--	--
	03/17/23	78.74	0.00	336.56	<22.6	--	--	--	<0.10	0.11J	<0.11	0.25J	--	<2.6	<2.6	--	--	--	--	--	--	--	--	--
	06/20/23	78.26	0.00	337.04	<22.6	--	--	--	<0.10	0.13J	<0.20	--	2.9J	<2.6	<0.23	<1.5	--	--	--	--	--	--	--	--
	09/27/23	78.34	0.00	336.96																				
	12/05/23	78.86	0.00	336.44	<24.0	--	--	--	<0.21	0.24J	<0.11	<0.42	--	<2.6	<2.6	--	--	--	--	--	--	--	--	--
<b>GW-11D<sup>1</sup></b> 99.72	11/11/94	79.83	0.00	19.89	<50	--	--	--	<0.5	<1	<1	<1	--	2	--	--	--	--	--	--	--	--	--	--
	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 <sup>NP</sup>	73.78	0.00	25.94	<50	--	--	--	<0.5	<1	<1	<1	--	9	--	--	--	--	--	--	--	--	--	--
	05/14/98 <sup>NP</sup>	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 <sup>NP</sup>	64.90	0.00	34.82	<50	--	--	--	<0.5	<1	<1	<1	--	98	--	--	--	--	--	--	--	--	--	--
	08/18/99 <sup>NP</sup>	73.88	0.00	25.84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/11/99 <sup>NP</sup>	77.08	0.00	22.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/09/00 <sup>NP</sup>	75.61	0.00	24.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/24/00 <sup>NP</sup>	75.55	0.00	24.17	<50.0	--	--	--	<0.500	<0.500	<0.500	&												

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

Well ID TOC Elevation	Sample Date	DTW (feet)	LPH (feet)	GW Elev. (feet)	TPH-G (µg/L)	TPH-D (µg/L)	TPH-O (µg/L)	TPH-D + 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)	Chloroform (µg/L)	Benzo(a) pyrene (µg/L)	1,2 DCA (µg/L)	EDB (µg/L)	1,1 DCE (µg/L)	1,2 DCE (µg/L)	1,2 DCP (µg/L)	PCE (µg/L)	TCE (µg/L)
					1,000/800 <sup>a</sup>	500	500	500	5	1,000	700	1,000	20	15	15	1.4	0.1	5	0.01	NA	5	NA	5	5
					MTCA Method A Cleanup Levels																			
	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	0.00	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/12/98 <sup>NP</sup>	62.50	0.00	28.82	<50	--	--	--	<0.5	<1	<1	1	--	10	--	--	--	--	--	--	--	--	--	--
	05/14/98 <sup>NP</sup>	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 <sup>NP</sup>	61.84	0.00	29.48	<50	--	--	--	<0.5	<1	<1	<1	--	<2	--	--	--	--	--	--	--	--	--	--
	08/18/99 <sup>NP</sup>	62.92	0.00	28.40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/11/99 <sup>NP</sup>	64.40	0.00	26.92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/09/00 <sup>NP</sup>	64.98	0.00	26.34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/24/00 <sup>NP</sup>	63.14	0.00	28.18	<50.0	--	--	--	<0.500	<0.500	<0.500	<1.00	--	--	--	--	<1.00	--	--	--	--	--	<1.00	<1.00
	09/11/00	NM	0.00	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/27/00	NM	0.00	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/23/01	NM	0.00	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/16/01 <sup>NP</sup>	66.70	0.00	24.62	<50.0	--	--	--	<0.500	<0.500	<0.500	<1.00	--	4.41	--	--	<1.00	--	--	--	--	<1.00	<1.00	
	08/30/01	NM	0.00	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/19/01	67.40	0.00	23.92	<50.0	--	--	--	<0.500	<0.500	<0.500	1.01	--	9.34	--	--	<1.00	--	--	--	--	<1.00	<1.00	
	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 <sup>NP</sup>	66.65	0.00	24.67	<50.0	--	--	--	<0.500	<0.500	<0.500	<1.00	--	1.96	<1.00	--	--	--	--	--	--	--	--	--
	11/14/03 <sup>NP</sup>	64.91	0.00	26.42	<50.0	--	--	--	<1.00	<1.00	<1.00	<1.50	--	<5.00	<5.00	--	--	--	--	--	--	--	--	--
	5/13/04 <sup>NP</sup>	64.80	0.00	26.52	<100	--	--	--	<1.00	<1.00	<1.00	<3.00	--	<5.00	<5.00	--	--	--	--	--	--	--	--	--
	12/10/04 <sup>NP</sup>	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	0.0																					

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

Well ID TOC Elevation	Sample Date	DTW (feet)	LPH (feet)	GW Elev. (feet)	TPH-G (µg/L)	TPH-D (µg/L)	TPH-O (µg/L)	TPH-D + 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)	Chloroform (µg/L)	Benzo(a) pyrene (µg/L)	1,2 DCA (µg/L)	EDB (µg/L)	1,1 DCE (µg/L)	1,2 DCE (µg/L)	1,2 DCP (µg/L)	PCE (µg/L)	TCE (µg/L)	
<b>MTCA Method A Cleanup Levels</b>					<b>1,000/800<sup>a</sup></b>	<b>500</b>	<b>500</b>	<b>500</b>	<b>5</b>	<b>1,000</b>	<b>700</b>	<b>1,000</b>	<b>20</b>	<b>15</b>	<b>15</b>	<b>1.4</b>	<b>0.1</b>	<b>5</b>	<b>0.01</b>	<b>NA</b>	<b>5</b>	<b>NA</b>	<b>5</b>	<b>5</b>	
GW-13D (Cont.)	12/16/22	76.10	0.00	336.84	<22.6	--	--	--	<0.10	<0.10	<0.11	<0.20	--	<2.6	<2.6	<0.23	<0.012	--	--	--	--	--	--	--	
GW-13D (Cont.)	03/16/23	76.32	0.00	336.62	62.6J	--	--	--	<0.10	1.4	1.1	4.3	--	<2.6	<2.6	--	--	--	--	--	--	--	--	--	
GW-13D (Cont.)	06/21/23	75.85	0.00	337.09	<22.6	--	--	--	0.13J	0.12J	0.14J	0.34J	--	4.4J	<2.6	<0.23	<1.6	--	--	--	--	--	--	--	
GW-13D (Cont.)	09/27/23	75.95	0.00	336.99	<24.0	--	--	--	<0.21	0.33J	0.15J	<0.42	--	<2.6	<2.6	--	--	--	--	--	--	--	--	--	
GW-13D (Cont.)	12/05/23	76.44	0.00	336.50	<24.0	--	--	--	<0.21	<0.21	<0.11	<0.42	--	3.5J	<2.6	--	--	--	--	--	--	--	--	--	
GW-14S	12/11/18	41.05	0.00	372.73	<b>113,000</b>	--	--	--	<b>13.8</b>	<b>6,440</b>	<b>2,790</b>	<b>17,600</b>	--	<b>5.0 J</b>	<b>3.0 J</b>	--	--	--	--	--	--	--	--	--	--
413.78	03/28/19	38.82	0.00	374.96	<b>53,300</b>	--	--	--	<b>9.7J</b>	<b>3,470</b>	<b>1,870</b>	<b>9,300</b>	--	<2.0	<b>2.2J</b>	--	--	--	--	--	--	--	--	--	--
413.78	06/28/19	40.30	0.00	373.48	<b>96,200</b>	--	--	--	<b>21.6</b>	<b>5,350</b>	<b>2,610</b>	<b>13,300</b>	--	<b>4.2J</b>	<b>&lt;2.0</b>	--	--	--	--	--	--	--	--	--	--
413.78	09/12/19	44.73	0.00	369.05	<b>93,400</b>	--	--	--	<b>356</b>	<b>3,660</b>	<b>2,840</b>	<b>13,700</b>	--	<b>11.1</b>	<b>&lt;2.0</b>	--	--	--	--	--	--	--	--	--	--
413.78	12/12/19	45.00	0.00	370.30	<b>114,000</b>	--	--	--	<b>693</b>	<b>3,900</b>	<b>2,430</b>	<b>11,400</b>	--	<b>2.5J</b>	<b>2.2J</b>	--	--	--	--	--	--	--	--	--	--
413.78	03/12/20	38.18	0.00	375.60	<b>35,800</b>	--	--	--	4.5J	<b>1,030</b>	499	<b>2,360</b>	--	<b>3.2J</b>	<b>&lt;2.0</b>	--	--	--	--	--	--	--	--	--	--
413.78	07/31/20	37.35	0.00	376.43	<b>357,000</b>	--	--	--	<b>8.3J</b>	814	<b>1,030</b>	<b>3,960</b>	--	<b>8.8J</b>	<b>&lt;2.0</b>	--	--	--	--	--	--	--	--	--	--
413.78	03/09/21	36.00	0.00	377.78	<b>23,200</b>	--	--	--	<b>10.6</b>	107	75.4	334	--	<2.0	<2.0	--	--	--	--	--	--	--	--	--	--
413.78	07/14/21	40.09	0.00	373.69	<b>50,900</b>	--	--	--	<b>48.7J</b>	<b>4,350</b>	<b>1,740</b>	<b>9,000</b>	--	<b>3.3J</b>	<b>2.9J</b>	--	--	--	--	--	--	--	--	--	--
413.78	10/08/21	44.81	0.00	368.97	<b>51,800</b>	--	--	--	290	2,310	1,810	8,560	--	<10.0	<10.0	--	--	--	--	--	--	--	--	--	--
413.78	12/17/21	42.92	0.00	370.86	<b>65,900</b>	--	--	--	<b>26.1J</b>	<b>1,720</b>	<b>2,060</b>	<b>9,870</b>	--	<2.6	<2.6	--	--	--	--	--	--	--	--	--	--
413.78	03/31/22	36.84	0.00	376.94	<b>19,400</b>	--	--	--	10.4	514	575	<b>2,350</b>	--	<2.6	<2.6	--	--	--	--	--	--	--	--	--	
413.78	06/29/22	35.68	0.00	378.10	<b>21,800</b>	--	--	--	<b>18.4</b>	715	<b>1,040</b>	<b>3,930</b>	--	<2.6	<2.6	<b>2.5J</b>	--	--	--	--	--	--	--	--	--
413.78	09/20/22	41.06	0.00	372.72	<b>49,800</b>	--	--	--	96.3	<b>2,520</b>	<b>2,060</b>	<b>9,160</b>	--	<2.6	<b>3.6J</b>	<b>&lt;5.8</b>	--	--	--	--	--	--	--	--	--
413.78	12/16/22	44.52	0.00	369.26	<b>37,100</b>	--	--	--	<b>336</b>	813	<b>1,600</b>	<b>6,070</b>	--	<b>3.1J</b>	<2.6	<b>&lt;5.8</b>	<b>1.1</b>	--	--	--	--	--	--	--	--
413.78	03/16/23	38.68	0.00	375.10	<b>14,800</b>	--	--	--	<b>21.9</b>	665	<b>722</b>	<b>2,720</b>	--	<b>3.3J</b>	<2.6	--	--	--	--	--	--	--	--	--	--
413.78	06/20/23	37.05	0.00	376.73	<b>21,800</b>	--	--	--	<b>35.6</b>	652	<b>876</b>	<b>3,290</b>	--	<2.6	<2.6	<b>&lt;5.8</b>	<b>&lt;1.4</b>	--	--	--	--	--	--	--	--
413.78	09/28/23	41.77	0.00	372.01	<b>36,900</b>	--	--	--	167	1,750	1,640	<b>7,230</b>	--	<2.6	<2.6	--	--	--	--	--	--	--	--	--	--
413.78	12/06/23	42.01	0.00	371.77	<b>44,700</b>	--	--	--	<b>199</b>	<b>2,340</b>	<b>1,580</b>	<b>7,020</b>	--	<b>2.9J</b>	<b>2.8J</b>	--	--	--	--	--	--	--	--	--	--
GW-14D	12/13/18	75.00	0.00	338.72	<19.6	--	--	--	12	0.40 J	<0.14	<0.31	--	<2.0	<2.0	--	--	--	--	--	--	--	--	--	--
413.78	03/30/19	76.12	0.00	337.60	502	--	--	--	<b>580</b>	1.5	34.4	3.5	--	<2.0	<2.0	--	--	--	--	--	--	--	--	--	--
413.78	06/28/19	76.32	0.00	337.40	604	--	--	--	<b>956</b>	7.5	60.0	19.2	--	<2.0	<2.0	--	--	--	--	--	--	--	--	--	--
413.78	09/12/19	76.82	0.00	336.90	402	--	--	--	<b>671</b>	3.0 J	23.1	<1.5	--	<2.0	<2.0	--	--	--	--	--	--	--	--	--	--
413.78	12/12/19	77.30	0.00	338.00	39.9J	--	--	--	1.5	0.16J	<0.31	--	4.4J	<2.0	--	--	--	--	--	--	--	--	--	--	--
413.78	03/12/20	77.90	0.00	335.82																					
413.78	07/31/20	73.60	0.00	340.12	908	--	--	--	<b>509</b>	0.38J</td															





---

## **APPENDIX A**

### **LABORATORY ANALYTICAL DATA REPORT AND CHAIN OF CUSTODY DOCUMENT**





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

December 19, 2023

Elisabeth Silver  
Atlas  
6347 Seaview Ave NW  
Seattle, WA 98107

RE: Project: P66 Burien  
Pace Project No.: 10678167

Dear Elisabeth Silver:

Enclosed are the analytical results for sample(s) received by the laboratory on December 07, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

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

Sincerely,

Jennifer Gross  
jennifer.gross@pacelabs.com  
(612)607-1700  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.



## CERTIFICATIONS

Project: P66 Burien  
Pace Project No.: 10678167

---

### Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414	Mississippi Certification #: MN00064
A2LA Certification #: 2926.01	Missouri Certification #: 10100
Alabama Certification #: 40770	Montana Certification #: CERT0092
Alaska Contaminated Sites Certification #: 17-009	Nebraska Certification #: NE-OS-18-06
Alaska DW Certification #: MN00064	Nevada Certification #: MN00064
Arizona Certification #: AZ0014	New Hampshire Certification #: 2081
Arkansas DW Certification #: MN00064	New Jersey Certification #: MN002
Arkansas WW Certification #: 88-0680	New York Certification #: 11647
California Certification #: 2929	North Carolina DW Certification #: 27700
Colorado Certification #: MN00064	North Carolina WW Certification #: 530
Connecticut Certification #: PH-0256	North Dakota Certification (A2LA) #: R-036
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137	North Dakota Certification (MN) #: R-036
Florida Certification #: E87605	Ohio DW Certification #: 41244
Georgia Certification #: 959	Ohio VAP Certification (1700) #: CL101
GMP+ Certification #: GMP050884	Oklahoma Certification #: 9507
Hawaii Certification #: MN00064	Oregon Primary Certification #: MN300001
Idaho Certification #: MN00064	Oregon Secondary Certification #: MN200001
Illinois Certification #: 200011	Pennsylvania Certification #: 68-00563
Indiana Certification #: C-MN-01	Puerto Rico Certification #: MN00064
Iowa Certification #: 368	South Carolina Certification #: 74003001
Kansas Certification #: E-10167	Tennessee Certification #: TN02818
Kentucky DW Certification #: 90062	Texas Certification #: T104704192
Kentucky WW Certification #: 90062	Utah Certification #: MN00064
Louisiana DEQ Certification #: AI-03086	Vermont Certification #: VT-027053137
Louisiana DW Certification #: MN00064	Virginia Certification #: 460163
Maine Certification #: MN00064	Washington Certification #: C486
Maryland Certification #: 322	West Virginia DEP Certification #: 382
Michigan Certification #: 9909	West Virginia DW Certification #: 9952 C
Minnesota Certification #: 027-053-137	Wisconsin Certification #: 999407970
Minnesota Dept of Ag Approval: via MN 027-053-137	Wyoming UST Certification #: via A2LA 2926.01
Minnesota Petrofund Registration #: 1240	USDA Permit #: P330-19-00208

---

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.



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

## SAMPLE SUMMARY

Project: P66 Burien  
Pace Project No.: 10678167

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10678167001	GW-10D	Water	12/05/23 13:45	12/07/23 08:50
10678167002	GW-13S	Water	12/05/23 15:35	12/07/23 08:50
10678167003	GW-13D	Water	12/05/23 14:40	12/07/23 08:50
10678167004	GW-14S	Water	12/06/23 13:20	12/07/23 08:50
10678167005	GW-15S	Water	12/06/23 11:25	12/07/23 08:50
10678167006	GW-15D	Water	12/06/23 10:50	12/07/23 08:50
10678167007	GWR-18D	Water	12/06/23 09:50	12/07/23 08:50
10678167008	Trip Blank	Water	12/06/23 00:00	12/07/23 08:50

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.



## SAMPLE ANALYTE COUNT

Project: P66 Burien  
Pace Project No.: 10678167

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10678167001	GW-10D	NWTPH-Gx	TM2	2	PASI-M
		EPA 6010D	DM	1	PASI-M
		EPA 6010D	IP	1	PASI-M
		EPA 8260D	PAB	7	PASI-M
10678167002	GW-13S	NWTPH-Gx	TM2	2	PASI-M
		EPA 6010D	DM	1	PASI-M
		EPA 6010D	IP	1	PASI-M
		EPA 8260D	PAB	7	PASI-M
10678167003	GW-13D	NWTPH-Gx	TM2	2	PASI-M
		EPA 6010D	DM	1	PASI-M
		EPA 6010D	IP	1	PASI-M
		EPA 8260D	PAB	7	PASI-M
10678167004	GW-14S	NWTPH-Gx	TM2	2	PASI-M
		EPA 6010D	DM	1	PASI-M
		EPA 6010D	IP	1	PASI-M
		EPA 8260D	PAB	7	PASI-M
10678167005	GW-15S	NWTPH-Gx	TM2	2	PASI-M
		EPA 6010D	DM	1	PASI-M
		EPA 6010D	IP	1	PASI-M
		EPA 8260D	PAB	7	PASI-M
10678167006	GW-15D	NWTPH-Gx	TM2	2	PASI-M
		EPA 6010D	DM	1	PASI-M
		EPA 6010D	IP	1	PASI-M
		EPA 8260D	PAB	7	PASI-M
10678167007	GWR-18D	NWTPH-Gx	TM2	2	PASI-M
		EPA 6010D	DM	1	PASI-M
		EPA 6010D	IP	1	PASI-M
		EPA 8260D	PAB	7	PASI-M
10678167008	Trip Blank	NWTPH-Gx	TM2	2	PASI-M
		EPA 8260D	PAB	7	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.



## ANALYTICAL RESULTS

Project: P66 Burien  
Pace Project No.: 10678167

Sample: GW-10D	Lab ID: 10678167001	Collected: 12/05/23 13:45	Received: 12/07/23 08:50	Matrix: Water					
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>NWTPH-Gx GCV</b>	Analytical Method: NWTPH-Gx Pace Analytical Services - Minneapolis								
TPH as Gas	<24.0	ug/L	100	24.0	1		12/11/23 17:42		
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	109	%.	50-150		1		12/11/23 17:42	98-08-8	
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Lead	<2.6	ug/L	10.0	2.6	1	12/11/23 10:29	12/12/23 11:00	7439-92-1	
<b>6010D MET ICP, Dissolved</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Lead, Dissolved	<2.6	ug/L	10.0	2.6	1	12/11/23 10:29	12/12/23 11:38	7439-92-1	
<b>8260D MSV UST</b>	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Benzene	<0.21	ug/L	1.0	0.21	1		12/08/23 14:25	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		12/08/23 14:25	100-41-4	
Toluene	0.24J	ug/L	1.0	0.21	1		12/08/23 14:25	108-88-3	
Xylene (Total)	<0.42	ug/L	3.0	0.42	1		12/08/23 14:25	1330-20-7	
<b>Surrogates</b>									
1,2-Dichlorobenzene-d4 (S)	101	%.	75-125		1		12/08/23 14:25	2199-69-1	
4-Bromofluorobenzene (S)	104	%.	75-125		1		12/08/23 14:25	460-00-4	
Toluene-d8 (S)	100	%.	75-125		1		12/08/23 14:25	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.



## ANALYTICAL RESULTS

Project: P66 Burien  
Pace Project No.: 10678167

Sample: GW-13S	Lab ID: 10678167002	Collected: 12/05/23 15:35	Received: 12/07/23 08:50	Matrix: Water					
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>NWTPH-Gx GCV</b>	Analytical Method: NWTPH-Gx Pace Analytical Services - Minneapolis								
TPH as Gas	<b>1510</b>	ug/L	100	24.0	1		12/11/23 17:58		
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	109	%.	50-150		1		12/11/23 17:58	98-08-8	
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Lead	<b>&lt;2.6</b>	ug/L	10.0	2.6	1	12/11/23 10:29	12/12/23 11:08	7439-92-1	
<b>6010D MET ICP, Dissolved</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Lead, Dissolved	<b>&lt;2.6</b>	ug/L	10.0	2.6	1	12/11/23 10:29	12/12/23 11:46	7439-92-1	
<b>8260D MSV UST</b>	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Benzene	<b>2.6</b>	ug/L	1.0	0.21	1		12/08/23 14:40	71-43-2	
Ethylbenzene	<b>37.8</b>	ug/L	1.0	0.11	1		12/08/23 14:40	100-41-4	
Toluene	<b>2.5</b>	ug/L	1.0	0.21	1		12/08/23 14:40	108-88-3	
Xylene (Total)	<b>44.7</b>	ug/L	3.0	0.42	1		12/08/23 14:40	1330-20-7	
<b>Surrogates</b>									
1,2-Dichlorobenzene-d4 (S)	100	%.	75-125		1		12/08/23 14:40	2199-69-1	
4-Bromofluorobenzene (S)	106	%.	75-125		1		12/08/23 14:40	460-00-4	
Toluene-d8 (S)	102	%.	75-125		1		12/08/23 14:40	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.



## ANALYTICAL RESULTS

Project: P66 Burien  
Pace Project No.: 10678167

Sample: GW-13D      Lab ID: 10678167003      Collected: 12/05/23 14:40      Received: 12/07/23 08:50      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>NWTPH-Gx GCV</b>	Analytical Method: NWTPH-Gx Pace Analytical Services - Minneapolis								
TPH as Gas	<24.0	ug/L	100	24.0	1		12/11/23 18:14		
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	108	%.	50-150		1		12/11/23 18:14	98-08-8	
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Lead	3.5J	ug/L	10.0	2.6	1	12/11/23 10:29	12/12/23 11:10	7439-92-1	
<b>6010D MET ICP, Dissolved</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Lead, Dissolved	<2.6	ug/L	10.0	2.6	1	12/11/23 10:29	12/12/23 11:47	7439-92-1	
<b>8260D MSV UST</b>	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Benzene	<0.21	ug/L	1.0	0.21	1		12/08/23 14:55	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		12/08/23 14:55	100-41-4	
Toluene	<0.21	ug/L	1.0	0.21	1		12/08/23 14:55	108-88-3	
Xylene (Total)	<0.42	ug/L	3.0	0.42	1		12/08/23 14:55	1330-20-7	
<b>Surrogates</b>									
1,2-Dichlorobenzene-d4 (S)	101	%.	75-125		1		12/08/23 14:55	2199-69-1	
4-Bromofluorobenzene (S)	102	%.	75-125		1		12/08/23 14:55	460-00-4	
Toluene-d8 (S)	101	%.	75-125		1		12/08/23 14:55	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.



## ANALYTICAL RESULTS

Project: P66 Burien  
Pace Project No.: 10678167

Sample: GW-14S      Lab ID: 10678167004      Collected: 12/06/23 13:20      Received: 12/07/23 08:50      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>NWTPH-Gx GCV</b>	Analytical Method: NWTPH-Gx Pace Analytical Services - Minneapolis								
TPH as Gas <b>Surrogates</b> a,a,a-Trifluorotoluene (S)	44700	ug/L	1000	240	10		12/11/23 18:30		
	110	%.	50-150		10		12/11/23 18:30	98-08-8	
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Lead	2.9J	ug/L	10.0	2.6	1	12/11/23 10:29	12/12/23 11:12	7439-92-1	
<b>6010D MET ICP, Dissolved</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Lead, Dissolved	2.8J	ug/L	10.0	2.6	1	12/11/23 10:29	12/12/23 11:49	7439-92-1	
<b>8260D MSV UST</b>	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Benzene	199	ug/L	10.0	2.1	10		12/08/23 18:24	71-43-2	
Ethylbenzene	1580	ug/L	10.0	1.1	10		12/08/23 18:24	100-41-4	
Toluene	2340	ug/L	20.0	4.1	20		12/11/23 14:18	108-88-3	
Xylene (Total) <b>Surrogates</b>	7020	ug/L	60.0	8.4	20		12/11/23 14:18	1330-20-7	
1,2-Dichlorobenzene-d4 (S)	100	%.	75-125		10		12/08/23 18:24	2199-69-1	
4-Bromofluorobenzene (S)	108	%.	75-125		10		12/08/23 18:24	460-00-4	
Toluene-d8 (S)	103	%.	75-125		10		12/08/23 18:24	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.



## ANALYTICAL RESULTS

Project: P66 Burien  
Pace Project No.: 10678167

Sample: GW-15S      Lab ID: 10678167005      Collected: 12/06/23 11:25      Received: 12/07/23 08:50      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>NWTPH-Gx GCV</b>	Analytical Method: NWTPH-Gx Pace Analytical Services - Minneapolis								
TPH as Gas	<b>93.7J</b>	ug/L	100	24.0	1		12/11/23 19:02		
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	107	%.	50-150		1		12/11/23 19:02	98-08-8	
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Lead	<b>&lt;2.6</b>	ug/L	10.0	2.6	1	12/11/23 10:29	12/12/23 11:17	7439-92-1	
<b>6010D MET ICP, Dissolved</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Lead, Dissolved	<b>&lt;2.6</b>	ug/L	10.0	2.6	1	12/11/23 10:29	12/12/23 11:54	7439-92-1	
<b>8260D MSV UST</b>	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Benzene	<b>0.58J</b>	ug/L	1.0	0.21	1		12/08/23 15:10	71-43-2	
Ethylbenzene	<b>1.1</b>	ug/L	1.0	0.11	1		12/08/23 15:10	100-41-4	
Toluene	<b>0.53J</b>	ug/L	1.0	0.21	1		12/08/23 15:10	108-88-3	
Xylene (Total)	<b>8.8</b>	ug/L	3.0	0.42	1		12/08/23 15:10	1330-20-7	
<b>Surrogates</b>									
1,2-Dichlorobenzene-d4 (S)	101	%.	75-125		1		12/08/23 15:10	2199-69-1	
4-Bromofluorobenzene (S)	102	%.	75-125		1		12/08/23 15:10	460-00-4	
Toluene-d8 (S)	99	%.	75-125		1		12/08/23 15:10	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.



## ANALYTICAL RESULTS

Project: P66 Burien  
Pace Project No.: 10678167

Sample: GW-15D	Lab ID: 10678167006	Collected: 12/06/23 10:50	Received: 12/07/23 08:50	Matrix: Water					
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>NWTPH-Gx GCV</b>	Analytical Method: NWTPH-Gx Pace Analytical Services - Minneapolis								
TPH as Gas	<24.0	ug/L	100	24.0	1		12/11/23 19:18		
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	106	%.	50-150		1		12/11/23 19:18	98-08-8	
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Lead	<2.6	ug/L	10.0	2.6	1	12/11/23 10:29	12/12/23 11:19	7439-92-1	
<b>6010D MET ICP, Dissolved</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Lead, Dissolved	<2.6	ug/L	10.0	2.6	1	12/11/23 10:29	12/12/23 11:56	7439-92-1	
<b>8260D MSV UST</b>	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Benzene	<0.21	ug/L	1.0	0.21	1		12/08/23 15:25	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		12/08/23 15:25	100-41-4	
Toluene	<0.21	ug/L	1.0	0.21	1		12/08/23 15:25	108-88-3	
Xylene (Total)	<0.42	ug/L	3.0	0.42	1		12/08/23 15:25	1330-20-7	
<b>Surrogates</b>									
1,2-Dichlorobenzene-d4 (S)	102	%.	75-125		1		12/08/23 15:25	2199-69-1	
4-Bromofluorobenzene (S)	102	%.	75-125		1		12/08/23 15:25	460-00-4	
Toluene-d8 (S)	100	%.	75-125		1		12/08/23 15:25	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.



## ANALYTICAL RESULTS

Project: P66 Burien  
Pace Project No.: 10678167

Sample: GWR-18D Lab ID: 10678167007 Collected: 12/06/23 09:50 Received: 12/07/23 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>NWTPH-Gx GCV</b>	Analytical Method: NWTPH-Gx Pace Analytical Services - Minneapolis								
TPH as Gas <b>Surrogates</b>	<b>739</b>	ug/L	100	24.0	1		12/11/23 19:34		
a,a,a-Trifluorotoluene (S)	109	%.	50-150		1		12/11/23 19:34	98-08-8	
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Lead	<b>6.9J</b>	ug/L	10.0	2.6	1	12/11/23 10:29	12/12/23 11:20	7439-92-1	
<b>6010D MET ICP, Dissolved</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Lead, Dissolved	<b>&lt;2.6</b>	ug/L	10.0	2.6	1	12/11/23 10:29	12/12/23 11:57	7439-92-1	
<b>8260D MSV UST</b>	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Benzene	<b>17.7</b>	ug/L	1.0	0.21	1		12/08/23 15:40	71-43-2	
Ethylbenzene	<b>0.90J</b>	ug/L	1.0	0.11	1		12/08/23 15:40	100-41-4	
Toluene	<b>0.37J</b>	ug/L	1.0	0.21	1		12/08/23 15:40	108-88-3	
Xylene (Total) <b>Surrogates</b>	<b>&lt;0.42</b>	ug/L	3.0	0.42	1		12/08/23 15:40	1330-20-7	
1,2-Dichlorobenzene-d4 (S)	99	%.	75-125		1		12/08/23 15:40	2199-69-1	
4-Bromofluorobenzene (S)	103	%.	75-125		1		12/08/23 15:40	460-00-4	
Toluene-d8 (S)	100	%.	75-125		1		12/08/23 15:40	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.



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

## ANALYTICAL RESULTS

Project: P66 Burien  
Pace Project No.: 10678167

Sample: Trip Blank      Lab ID: 10678167008      Collected: 12/06/23 00:00      Received: 12/07/23 08:50      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>NWTPH-Gx GCV</b>	Analytical Method: NWTPH-Gx Pace Analytical Services - Minneapolis								
TPH as Gas <b>Surrogates</b> a,a,a-Trifluorotoluene (S)	<24.0	ug/L	100	24.0	1		12/11/23 19:50		
	105	%.	50-150		1		12/11/23 19:50	98-08-8	
<b>8260D MSV UST</b>	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Benzene	<0.21	ug/L	1.0	0.21	1		12/08/23 13:40	71-43-2	
Ethylbenzene	0.18J	ug/L	1.0	0.11	1		12/08/23 13:40	100-41-4	
Toluene	3.7	ug/L	1.0	0.21	1		12/08/23 13:40	108-88-3	
Xylene (Total) <b>Surrogates</b>	0.62J	ug/L	3.0	0.42	1		12/08/23 13:40	1330-20-7	
1,2-Dichlorobenzene-d4 (S)	103	%.	75-125		1		12/08/23 13:40	2199-69-1	
4-Bromofluorobenzene (S)	103	%.	75-125		1		12/08/23 13:40	460-00-4	
Toluene-d8 (S)	100	%.	75-125		1		12/08/23 13:40	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.



## QUALITY CONTROL DATA

Project: P66 Burien  
Pace Project No.: 10678167

QC Batch: 922838 Analysis Method: NWTPH-Gx  
QC Batch Method: NWTPH-Gx Analysis Description: NWTPH-Gx Water  
Laboratory: Pace Analytical Services - Minneapolis  
Associated Lab Samples: 10678167001, 10678167002, 10678167003, 10678167004, 10678167005, 10678167006, 10678167007, 10678167008

METHOD BLANK: 4848815 Matrix: Water

Associated Lab Samples: 10678167001, 10678167002, 10678167003, 10678167004, 10678167005, 10678167006, 10678167007, 10678167008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
TPH as Gas	ug/L	<24.0	100	24.0	12/11/23 17:26	
a,a,a-Trifluorotoluene (S)	%.	110	50-150		12/11/23 17:26	

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1000	803	907	80	91	68-125	12	20	
a,a,a-Trifluorotoluene (S)	%.				115	105	50-150			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4848817 4848818

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH as Gas	ug/L	1067818001	ND	1000	788	795	79	80	57-132	1	30
a,a,a-Trifluorotoluene (S)	%.						104	104	50-150		

SAMPLE DUPLICATE: 4848819

Parameter	Units	Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	44700	43000	4	30	
a,a,a-Trifluorotoluene (S)	%.	110	108			

SAMPLE DUPLICATE: 4848822

Parameter	Units	Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	ND	<24.0		30	
a,a,a-Trifluorotoluene (S)	%.	102	100			

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

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.



## QUALITY CONTROL DATA

Project: P66 Burien  
Pace Project No.: 10678167

QC Batch: 922624 Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A Analysis Description: 6010D Water  
Laboratory: Pace Analytical Services - Minneapolis  
Associated Lab Samples: 10678167001, 10678167002, 10678167003, 10678167004, 10678167005, 10678167006, 10678167007

METHOD BLANK: 4848184 Matrix: Water

Associated Lab Samples: 10678167001, 10678167002, 10678167003, 10678167004, 10678167005, 10678167006, 10678167007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lead	ug/L	<2.6	10.0	2.6	12/12/23 10:57	

LABORATORY CONTROL SAMPLE: 4848185

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	1000	1000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4848186 4848187

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
Lead	ug/L	<2.6	1000	1000	982	991	98	99	75-125	1	20

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

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.



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

## QUALITY CONTROL DATA

Project: P66 Burien  
Pace Project No.: 10678167

QC Batch: 922623 Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A Analysis Description: 6010D Water Dissolved  
Laboratory: Pace Analytical Services - Minneapolis  
Associated Lab Samples: 10678167001, 10678167002, 10678167003, 10678167004, 10678167005, 10678167006, 10678167007

METHOD BLANK: 4848180 Matrix: Water

Associated Lab Samples: 10678167001, 10678167002, 10678167003, 10678167004, 10678167005, 10678167006, 10678167007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lead, Dissolved	ug/L	<2.6	10.0	2.6	12/12/23 11:34	

LABORATORY CONTROL SAMPLE: 4848181

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead, Dissolved	ug/L	1000	968	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4848182 4848183

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead, Dissolved	ug/L	<2.6	1000	1000	1000	100	100	75-125	0	20	

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



## QUALITY CONTROL DATA

Project: P66 Burien  
Pace Project No.: 10678167

QC Batch: 922473 Analysis Method: EPA 8260D  
QC Batch Method: EPA 8260D Analysis Description: 8260D MSV UST-WATER  
Laboratory: Pace Analytical Services - Minneapolis  
Associated Lab Samples: 10678167001, 10678167002, 10678167003, 10678167004, 10678167005, 10678167006, 10678167007, 10678167008

METHOD BLANK: 4847291 Matrix: Water

Associated Lab Samples: 10678167001, 10678167002, 10678167003, 10678167004, 10678167005, 10678167006, 10678167007, 10678167008

Parameter	Units	Blank	Reporting		MDL	Analyzed	Qualifiers
		Result	Limit				
Benzene	ug/L	<0.21	1.0	0.21	12/08/23 13:19		
Ethylbenzene	ug/L	<0.11	1.0	0.11	12/08/23 13:19		
Toluene	ug/L	<0.21	1.0	0.21	12/08/23 13:19		
Xylene (Total)	ug/L	<0.42	3.0	0.42	12/08/23 13:19		
1,2-Dichlorobenzene-d4 (S)	%.	98	75-125		12/08/23 13:19		
4-Bromofluorobenzene (S)	%.	102	75-125		12/08/23 13:19		
Toluene-d8 (S)	%.	100	75-125		12/08/23 13:19		

LABORATORY CONTROL SAMPLE & LCSD: 4847292

4847293

Parameter	Units	Spike	LCS	LCSD	LCS	LCSD	% Rec	Max	RPD	RPD	Qualifiers
		Conc.	Result	Result	% Rec	% Rec	Limits				
Benzene	ug/L	20	18.0	18.7	90	94	75-125	4	20		
Ethylbenzene	ug/L	20	19.4	19.2	97	96	75-125	1	20		
Toluene	ug/L	20	19.0	19.5	95	98	74-125	3	20		
Xylene (Total)	ug/L	60	58.4	59.2	97	99	75-125	1	20		
1,2-Dichlorobenzene-d4 (S)	%.				99	99	75-125				
4-Bromofluorobenzene (S)	%.				105	106	75-125				
Toluene-d8 (S)	%.				102	101	75-125				

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

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.



## QUALITY CONTROL DATA

Project: P66 Burien  
Pace Project No.: 10678167

QC Batch: 922793 Analysis Method: EPA 8260D  
QC Batch Method: EPA 8260D Analysis Description: 8260D MSV UST-WATER  
Associated Lab Samples: 10678167004 Laboratory: Pace Analytical Services - Minneapolis

METHOD BLANK: 4848652 Matrix: Water

Associated Lab Samples: 10678167004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Toluene	ug/L	<0.21	1.0	0.21	12/11/23 13:11	
Xylene (Total)	ug/L	<0.42	3.0	0.42	12/11/23 13:11	
1,2-Dichlorobenzene-d4 (S)	%.	102	75-125		12/11/23 13:11	
4-Bromofluorobenzene (S)	%.	103	75-125		12/11/23 13:11	
Toluene-d8 (S)	%.	99	75-125		12/11/23 13:11	

LABORATORY CONTROL SAMPLE & LCSD: 4848653

4848654

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Toluene	ug/L	20	19.8	19.4	99	97	74-125	2	20	
Xylene (Total)	ug/L	60	60.2	60.5	100	101	75-125	0	20	
1,2-Dichlorobenzene-d4 (S)	%.			104	101	75-125				
4-Bromofluorobenzene (S)	%.			105	103	75-125				
Toluene-d8 (S)	%.			102	101	75-125				

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

## QUALIFIERS

Project: P66 Burien  
Pace Project No.: 10678167

---

### 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.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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

TNI - The NELAC Institute.

### BATCH QUALIFIERS

Batch: 922473

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 922793

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.



## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: P66 Burien  
Pace Project No.: 10678167

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10678167001	GW-10D	NWTPH-Gx	922838		
10678167002	GW-13S	NWTPH-Gx	922838		
10678167003	GW-13D	NWTPH-Gx	922838		
10678167004	GW-14S	NWTPH-Gx	922838		
10678167005	GW-15S	NWTPH-Gx	922838		
10678167006	GW-15D	NWTPH-Gx	922838		
10678167007	GWR-18D	NWTPH-Gx	922838		
10678167008	Trip Blank	NWTPH-Gx	922838		
10678167001	GW-10D	EPA 3010A	922624	EPA 6010D	922924
10678167002	GW-13S	EPA 3010A	922624	EPA 6010D	922924
10678167003	GW-13D	EPA 3010A	922624	EPA 6010D	922924
10678167004	GW-14S	EPA 3010A	922624	EPA 6010D	922924
10678167005	GW-15S	EPA 3010A	922624	EPA 6010D	922924
10678167006	GW-15D	EPA 3010A	922624	EPA 6010D	922924
10678167007	GWR-18D	EPA 3010A	922624	EPA 6010D	922924
10678167001	GW-10D	EPA 3010A	922623	EPA 6010D	922922
10678167002	GW-13S	EPA 3010A	922623	EPA 6010D	922922
10678167003	GW-13D	EPA 3010A	922623	EPA 6010D	922922
10678167004	GW-14S	EPA 3010A	922623	EPA 6010D	922922
10678167005	GW-15S	EPA 3010A	922623	EPA 6010D	922922
10678167006	GW-15D	EPA 3010A	922623	EPA 6010D	922922
10678167007	GWR-18D	EPA 3010A	922623	EPA 6010D	922922
10678167001	GW-10D	EPA 8260D	922473		
10678167002	GW-13S	EPA 8260D	922473		
10678167003	GW-13D	EPA 8260D	922473		
10678167004	GW-14S	EPA 8260D	922473		
10678167004	GW-14S	EPA 8260D	922793		
10678167005	GW-15S	EPA 8260D	922473		
10678167006	GW-15D	EPA 8260D	922473		
10678167007	GWR-18D	EPA 8260D	922473		
10678167008	Trip Blank	EPA 8260D	922473		

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.



CHAIN-OF-CUSTODY / Analytical Request Doc

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

MO#: 10678167

Required Client Information:									
Company:	ATC Group Services LLC								
Address:	6347 Seaview Ave NW Seattle, WA 98107								
Email:	elisabeth.silver@atcgs.com								
Phone:	(206)781-1449								
Requested Due Date:	Standard 5-7								
Required Project Information:									
Report To:	Elisabeth Silver								
Copy To:									
Purchase Order #:									
Project Name:	P66 Burien								
Project #:	Project #:								
Project #: 39765-72									
Preservatives									
Sample Temp at Collection									
# of Containers									
Analyses Test									
Residual Chlorine (Y/N)									
RELINQUISHED BY / AFFILIATION									
ACCEPTED BY / AFFILIATION									
SAMPLE CONDITIONS									
ADDITIONAL COMMENTS									
ITEM #									
SAMPLE ID									
One Character per box. (A-Z, 0-9, -, ) Sample IDs must be unique									
MATRIX CODE (see valid codes to left)									
CODE									
Drinking Water	DW	Water	WT	Waste Water	WW	Product	P	Soil/Sed.	SL
Oil	OL	Wipe	WP	Air	AR	Other	OT	Tissue	TS
SAMPLE TYPE (G=GRAB C=COMP)									
COLLECTED									
START END									
DATE TIME DATE TIME									
2023									
1	GW - 100	GW	0	1215	1345				
2	GW - 135		1	1215	1450				
3	GW - 13D		2	1215	1535				
4	GW - 145		3	1210	1320				
5	GW - 150		4	1210	1425				
6	GW - 155		5	1210	1500				
7	GW - 150		6	1210	1050				
8	GWK - 180		7	1210	0950				
9			8						
10			9						
11			10						
12			11						
TEMP in C									
Received on ice (Y/N)									
Custody Sealed Cooler (Y/N)									
Samples Intact (Y/N)									
SAMPLE NAME AND SIGNATURE									
PRINT Name of SAMPLER: Isabella Aragona									
SIGNATURE of SAMPLER: Isabella Aragona									
DATE Signed: 12/10/23									

Effective Date: 4/14/2023

Sample Condition Upon Receipt	Client Name: <u>ATC Group</u>	Project #: <u>W0# : 10678167</u>
Courier:	<input checked="" type="checkbox"/> FedEx <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Client <input type="checkbox"/> Pace <input type="checkbox"/> SpeeDee <input type="checkbox"/> Commercial	PM: JMG Due Date: 12/14/23 CLIENT: ATC_WA
Tracking Number:	<u>5923 7149 7135</u> <u>11 7146</u>	<input checked="" type="checkbox"/> See Exceptions ENV-FRM-MIN4-0142
Custody Seal on Cooler/Box Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Packing Material:	<input type="checkbox"/> Bubble Wrap <input checked="" type="checkbox"/> Bubble Bags <input type="checkbox"/> None	Other <input type="checkbox"/>
Thermometer:	<input type="checkbox"/> T1 (0461) <input type="checkbox"/> T2 (0436) <input checked="" type="checkbox"/> T3 (0459) <input type="checkbox"/> T4 (0402) <input type="checkbox"/> T5 (0178) <input type="checkbox"/> T6 (0235) <input type="checkbox"/> T7 (0042) <input type="checkbox"/> T8 (0775) <input type="checkbox"/> T9(0727)	Type of Ice: <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Blue <input type="checkbox"/> Dry <input type="checkbox"/> None <input type="checkbox"/> Melted 01339252/1710
Did Samples Originate in West Virginia?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Were All Container Temps Taken? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Temp should be above freezing to 6 °C	Cooler temp Read w/Temp Blank: <u>21.52</u> °C	
Correction Factor: <u>+0.1</u>	Cooler Temp Corrected w/temp blank: <u>21.52</u> °C	
USDA Regulated Soil:	<input checked="" type="checkbox"/> N/A, water sample/other: _____	
Did samples originate in a quarantine zone within the United States: AL, AR, AZ CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check maps)?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Date/Initials of Person Examining Contents: <u>NEVM 12/17/23</u>		
Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? <input type="checkbox"/> Yes <input type="checkbox"/> No		
If Yes to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.		
Location (Check one): <input type="checkbox"/> Duluth <input checked="" type="checkbox"/> Minneapolis <input type="checkbox"/> Virginia	COMMENTS	
Chain of Custody Present and Filled Out? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.	
Chain of Custody Relinquished? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2.	
Sampler Name and/or Signature on COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4. If fecal: <input type="checkbox"/> <8 hrs <input type="checkbox"/> >8 hr, <24 <input type="checkbox"/> No	
Short Hold Time Analysis (<72 hr)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. <input type="checkbox"/> Fecal Coliform <input type="checkbox"/> HPC <input type="checkbox"/> Total Coliform/E.coli <input type="checkbox"/> BOD/cBOD <input type="checkbox"/> Hex Chrom <input type="checkbox"/> Turbidity <input type="checkbox"/> Nitrate <input type="checkbox"/> Nitrite <input type="checkbox"/> Orthophos <input type="checkbox"/> Other	
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.	
Sufficient Sample Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7.	
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.	
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Is sediment visible in the dissolved container? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Field Filtered Volume Received for Dissolved Tests? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11. If no, write ID/Date/Time of container below: <input checked="" type="checkbox"/> See Exceptions ENV-FRM-MIN4-0142	
Is sufficient information available to reconcile the samples to the COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12. Sample # <u>1-7-22</u>	
Matrix: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Soil <input type="checkbox"/> Oil <input type="checkbox"/> Other	<input type="checkbox"/> NaOH <input checked="" type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> Zinc Acetate	
All containers needing acid/base preservation have been checked? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Positive for Residual Chlorine? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> See Exceptions ENV-FRM-MIN4-0142	
All containers needing preservation are found to be in compliance with EPA recommendation? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	pH Paper Lot #	
(HNO3, H2SO4 <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	Residual Chlorine <input type="checkbox"/> 0-6 Roll <input type="checkbox"/> 0-6 Strip <input type="checkbox"/> 0-14 Strip <u>213923</u>	
Exceptions VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxins/PFAS	13.	
(*If adding preservative to a container, it must be added to associated field and equipment blanks--verify with PM first.)	14.	
Headspace in Methyl Mercury Container? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15. <u>TBD</u> Pace Trip Blank Lot # (if purchased): <u>476304</u>	
CLIENT NOTIFICATION/RESOLUTION		
Person Contacted: <u>Elisabeth Silver, Melody Ryback</u>		Date/Time: <u>12/7/23</u>
Comments/Resolution: <u>Sample GW-13S collected 15:35; sample GW-13D collected 14:50; Nitric is for GWR-18D.</u>		
Project Manager Review: <u>Jenni Gross</u>		Date: <u>12/7/23</u>
NOTE: Whenever there is a discrepancy affecting North Carolina compliance 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: <u>NEVM</u>		Line: <u>1</u>



**DC#\_Title: ENV-FRM-MIN4-0142 v02\_Sample Condition Upon Receipt  
(SCUR) Exception Form**

Effective Date: 09/22/2022

**Workorder #:** 10678167 (JMG 12/7/23)

No Temp Blank		
Read Temp	Corrected Temp	Average temp

<b>PM Notified of Out of Temp Cooler?</b>	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If yes, indicate who was contacted, date and time.		
If no, indicate reason why.		
<hr/>		
<b>Multiple Cooler Project?</b>	<input type="checkbox"/> Yes	<input type="checkbox"/> No

If anything is OVER 6.0° C, you MUST document containers in this section HERE

**Comments:** NEVM 12/7/23

Containers for GW-14D labeled as GW-139. Time on GW-139 containers is 1935. Time on GW-14D containers is 1498. BP3E for GW-14D labeled as GW-138.



---

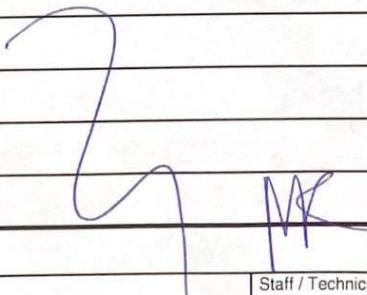
## **APPENDIX B**

### **FIELD REPORTS / GROUNDWATER GAUGING AND SAMPLING LOGS**



<b>ATLAS</b>		<b>Field Report</b>		FLD-100
				Revision 1.0
				6/1/2016
ATC Branch: Seattle - 10282		Date: <u>12/5/13</u>	Page 1 of 3	
ATC Representative(s): <u>IP, MR</u>		Project: <u>PUV ADC 20103</u>		
Role: <u>Staff Scientist</u>		Location: <u>BURUN, WA</u>		
Contact Information: (206) 781-1449		Project No: <u>2010000084</u>	Task No: -	
Scope of Work:		Weather: <u>Rainy</u>	Temperature: <u>↓ 50's</u>	
<input type="checkbox"/> Monitoring <input type="checkbox"/> Assessment <input type="checkbox"/> Remediation <input type="checkbox"/> Closure		Contractor: <u>MA</u>		
Time:	Comments: Arrive onsite, don level D PPE, perform morning tailgate			
	gauge all monitoring wells well ID      DTW      TD / GW-BS      39.20      /			
	GW-90	77.38	/	
	GW-105	31.82	/	
	GW-10D	78.820	95.07	
	GW-11D	78.07	/	
	GW-13S	33.77	50.33	
	GW-13D	76.44	85.90	
	GW-14S	42.01	49.90	
	GW-14D	77.21	80.35	
	GW-15S	33.49	45.95	
	GW-15D	53.77	74.21	
	GW-16S	46.74	/	
	GW-16D	78.75	/	
	GW-17S	49.48	/	
	GW-17D	78.26	/	
	GWR-18S		54.00	
	GWR-18D	75.00	91.43	
1250	MOO to GW-105 & GW-10D, establish containment zone			
1320	purge start at GW-10P			
1345	parameters stable, sample collected @ GW-10D *			
Equipment Used:				
Contractor Hours (per Person):		Staff / Technician Hours:		Mileage:
Copies To:		Project Manager:		
		Reviewed By:		

<b>ATLAS</b>		Field Report		FLD-100
				Revision 1.0
				6/1/2016
ATC Branch: Seattle - 10282		Date: <u>12/5/23</u>	Page <u>2</u> of <u>3</u>	
ATC Representative(s): <u>IA, MR</u>		Project: <u>PV16 ADC 2003</u>		
Role: <u>Staff Scientist</u>		Location: <u>Burien, WA</u>		
Contact Information: (206) 781-1449		Project No: <u>Z0760000810</u>	Task No: --	
Scope of Work:		Weather: <u>Rainy</u>	Temperature: <u>45°'S</u>	
<input checked="" type="checkbox"/> Monitoring <input type="checkbox"/> Assessment <input type="checkbox"/> Remediation <input type="checkbox"/> Closure		Contractor: <u>NA</u>		
Time:	Comments:			
<u>1405</u>	mob to GW-135 and GW-130, establish containment			
<u>1427</u>	purge start @ GW-130			
<u>1450</u>	parameters stable, sample collected @ GW-130 *			
<u>1510</u>	purge start @ GW-135			
<u>1535</u>	parameters stable, sample collected @ GW-135 *			
Equipment Used:				
Contractor Hours (per Person):		Staff / Technician Hours:	Mileage:	
Copies To:		Project Manager:		
		Reviewed By:		

<b>ATLAS</b>		<b>Field Report</b>		FLD-100
				Revision 1.0
				6/1/2016
ATC Branch: Seattle - 10282		Date: 12/4/13	Page 3 of 3	
ATC Representative(s): IA, MR		Project: Puu ADC 2003		
Role: STAFF SURVEYORS		Location: Burien, WA		
Contact Information: (206) 781-1449		Project No: 2070000086	Task No: --	
Scope of Work:		Weather: Partly cloudy & overcast	Temperature: 60°	
<input checked="" type="checkbox"/> Monitoring <input type="checkbox"/> Assessment <input type="checkbox"/> Remediation <input type="checkbox"/> Closure		Contractor: NA		
Time:	Comments:			
0835	Arrive onsite, don level D PPE, perform tailgate			
0839	mob to GW-18S1D & GWR-18S1D * Gauged GW-18S1 & GWR-18S1 - Both under 1/2' of water column and are unable to be sampled.			
0927	purge start @ GWR-18D			
0950	parameters stable, sample collected @ GWR-18D *			
1010	mob to GW-18S1D, establish containment			
1034	purge start @ GW-18D			
1050	parameters stable, sample collected @ GW-18D *			
1107	purge start @ GW-18S			
1125	parameters stable, sample collected @ GW-18S *			
1232	mob to GW-18S and GW-18D, establish containment zone			
1239	purge start @ GW-18D - Attempt purge start unable to sample GW-18D, well effectively dry			
1251	<del>parameters stable, sample collected @ GW-18D</del> *			
1257	purge start @ GW-18S			
1320	parameters stable, sample collected @ GW-18S *			
clean up onsite.				
				
Equipment Used:				
Contractor Hours (per Person):		Staff / Technician Hours:	Mileage:	
Copies To:		Project Manager:		
		Reviewed By:		

<b>ATLAS</b>		<b>Monitor Well Gauging Log</b>					FLD-102	
							Revision 0.0	
							Jul-08	
ATC Branch: Seattle - 10282		Date: 12/5-6/23			Page 1 of 2			
ATC Representative(s): ID, MR		Project: Pile ADC 2003						
Contact Information: (206) 781-1449		Location: Burien, WA						
		Project No: 207000000			Task No:			
		Weather: RAINY			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-8S	2"	11/10	1120	/	39.20	/	/	gauge only
GW-8D	1	11/4	1117	/	77.38	/	/	gauge only
GW-10S		12/5/8	1304	/	31.82	/	/	gauge only
* GW-10D		12/5/8	1305	/	78.84	/	95.07	
GW-11D		10/09	1011	/	78.07	/	/	gauge only
* GW-13S		10/17	1021	/	33.77	/	50.33	
* GW-13D		10/15	1019	/	70.44 <del>70.44</del>	/	85.90	
GW-14S		10/28	1031	/	42.01	/	49.99	strong PO
GW-14D		10/24	1029	/	77.21	/	80.35	strong PO
GW-15S		10/37	1043	/	33.09	/	45.95	
GW-15D		10/35	1039	/	53.79	/	74.27	
GW-16S		10/48	1052	/	46.74	/	/	gauge only
GW-16D		10/47	1050	/	78.75	/	/	gauge only
GW-17S		10/57	1101	/	49.48	/	/	gauge only
GW-17D	↓	10/50	1058	/	78.26	/	/	gauge only
<b>Comments:</b>								
All wells gauged 12/5/23								
o = wells sampled 12/6/23								
* = wells sampled 12/5/23								

## 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.

<b>ATLAS</b>		<b>Monitor Well Gauging Log</b>						FLD-102
								Revision 0.0
								Jul-08
ATC Branch: Seattle - 10282				Date: 12/5-6/2023		Page 2 of 2		
ATC Representative(s): MR. JIA				Project: PLuv ADC 20103				
Contact Information: (206) 781-1449				Location: Burien, WA				
				Project No: Z0740000B6		Task No:		
				Weather: Rainy		Temperature: 450's		
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)
*	GWR-18S	2"	0859	0905	/	53.84	/	54.60 UNABLE TO SAMPLE EFFECTIVELY DRY
o	GWR-18D	↓	1105	1110	/	75.00	/	91.43 THICK
*	GW-18S	↓	0901	0907	/	49.00	/	49.80 UNABLE TO SAMPLE EFFECTIVELY DRY
o	GW-18D	↓	NOT START Gauged					
Comments:								
<ul style="list-style-type: none"> <li>* UNABLE TO SAMPLE GW-18S OR GWR-18S DUE TO WATER FLOW ON 12/5/23 PROPERTY. WATER CONTINUALLY FILLED WELL CHAMBER MAKING IT IMPOSSIBLE TO REMOVE WATER FROM WELL CHAMBER.</li> <li>* OPENED 12/6/23</li> <li>o WELL GAUGED 12/5/23 &amp; SAMPLED 12/6/23</li> </ul>								

## 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.

<b>ATLAS</b>		<b>Monitoring Well Purging and Sampling Log</b>				FLD-103 Revision 1.0 Jul-08			
ATC Branch: Seattle - 102B2		Date: 12/5/23		Page 1 of 1					
ATC Representative(s): IA, MR		Project: P66 AOC 2063		Location: Burien					
Contact Information: (206) 781-1449		Project No: 2076000087		Task No: —					
Well ID: GW-10D		Weather: Rain		Temperature: 50's					
<b>Purging &amp; Sampling Instrumentation &amp; Method</b>									
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 <input checked="" type="checkbox"/> Submersible Pump <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Other: _____									
3 Well Volumes Low Flow <input checked="" type="checkbox"/> Micro Purge <input type="checkbox"/> Intake Depth (feet below TOC) ~88'									
Sampling Method: Teflon Bailer <input type="checkbox"/> Disposable Bailer <input checked="" type="checkbox"/> Dedicated Tubing <input type="checkbox"/> Other: _____									
<b>Casing Volume Information</b>				<b>Purging Calculations</b>					
Casing Diameter (Circle): 2" 4" 6" Other <input checked="" type="checkbox"/>				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					
<b>Monitoring Measurements</b>									
Depth to LNAPL (feet): —				Total Well Depth (feet): 95.07					
Depth to Water (DTW)(feet): 78.86				Water Column (WC)(feet): 16.21					
LNAPL Thickness (ft): —				Purging Start Time: 1326					
<b>Purging Data</b>									
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
1336	78.97	0.75	14.30	261	CL	7.11	10.55	-8.9	
1339	78.97	1.25	14.83	262	CL	7.18	10.56	-10.1	
1342	78.97	1.50	14.82	261	CL	7.47	10.46	-10.6	
<b>Sample Data</b>									
Sample ID: GW-10D		Time of Sample: 1345		Filtered (yes/no)		Preservatives		Analytical Parameters	
Container Types, Volumes, & Quantities:				NO		HCl		Gx, VOCs	
6-40ml VOAs				NO/Lab Filtered		HNO3		Pb, Dissolved Pb	
2-250ml PE									
<b>Well Recovery Data</b>									
Maximum Drawdown (DTW <sub>m</sub> )(feet): 78.97				Approximate Flow Rate (GPM): 0.066 /~250 mL/min					
Recovery Type: <input checked="" type="checkbox"/> Fast <input type="checkbox"/> Slow				% Recovery = 100					
Purge Water Disposition (Attach Drum Inventory Log - FLD 108):									
Comments:									

<b>ATLAS</b>		<b>Monitoring Well Purging and Sampling Log</b>				FLD-103			
						Revision 1.0			
						Jul-08			
ATC Branch: Seattle - 10282		Date: 12/5/23	Page 1 of 1						
ATC Representative(s): IA, MR		Project: P66 AOC 2063							
Contact Information: (206) 781-1449		Location: Burien							
Well ID: GW-13S		Project No: 2076000087	Task No: —						
		Weather: Rain	Temperature: 50's						
<b>Purging &amp; Sampling Instrumentation &amp; Method</b>									
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 <input checked="" type="checkbox"/> Submersible Pump      Peristaltic Pump      Other: _____									
3 Well Volumes      Low Flow <input checked="" type="checkbox"/> Micro Purge      Intake Depth (feet below TOC) ~ 43'									
Sampling Method: Teflon Bailer      Disposable Bailer <input checked="" type="checkbox"/> Dedicated Tubing      Other: _____									
<b>Casing Volume Information</b>				<b>Purging Calculations</b>					
Casing Diameter (Circle): <input checked="" type="checkbox"/> 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					
<b>Monitoring Measurements</b>									
Depth to LNAPL (feet): —				Total Well Depth (feet): 50.33					
Depth to Water (DTW)(feet): 33.77				Water Column (WC)(feet): 16.56					
LNAPL Thickness (ft): —				Purging Start Time: 1510					
<b>Purging Data</b>									
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
1520	35.68	1.75	14.47	236	CL	2.06	10.98	-18.1	
1523	35.73	2.00	14.41	230	CL	2.32	10.87	-17.8	
1526	35.78	2.25	14.40	221	CL	3.00	10.79	-17.7	
1529	35.86	2.50	14.51	219	CL	3.30	10.78	-17.9	
1532	35.88	2.75	14.35	221	CL	3.23	10.72	-17.7	
<b>Sample Data</b>									
Sample ID: GW-13S		Time of Sample: 1535		Filtered (yes/no)		Preservatives	Analytical Parameters		
Container Types, Volumes, & Quantities:				NO		HCl	Gx, VOCs		
6-40ml VOAs				NO/Lab Filtered		HNO3	Pb, Dissolved Pb		
<b>Well Recovery Data</b>									
Maximum Drawdown (DTWm)(feet): 35.88				Approximate Flow Rate (GPM): 0.092 / ~ 350 mL/min					
Recovery Type: <input checked="" type="checkbox"/> Fast      Slow				% Recovery = 100					
Purge Water Disposition (Attach Drum Inventory Log - FLD 108):									
Comments: PO in purge water									

<b>ATLAS</b>		<b>Monitoring Well Purging and Sampling Log</b>				FLD-103			
						Revision 1.0			
						Jul-08			
ATC Branch: Seattle - 10282		Date: <u>12/5/23</u>	Page <u>1</u> of <u>1</u>						
ATC Representative(s): <u>IA, MR</u>		Project: <u>P66 AOC 2063</u>							
		Location: <u>Burien</u>							
Contact Information: (206) 781-1449		Project No: <u>2076000087</u>	Task No: <u>—</u>						
Well ID: <u>GW-13D</u>		Weather: <u>Rain</u>	Temperature: <u>50's</u>						
<b>Purging &amp; Sampling Instrumentation &amp; Method</b>									
Water Level Meter (Model/ID): <u>Envirotape</u>				Interface Probe (Model/ID): <u>NA</u>					
Water Quality Meter (Model/ID): <u>YSI 556 MPS</u>				Decontamination Method: <u>Alconox/DI Water</u>					
Purging Method: <u>PVC Bailer</u> <u>Vacuum Truck</u> <input checked="" type="checkbox"/> Submersible Pump <input type="checkbox"/> Peristaltic Pump   Other: _____									
3 Well Volumes <u>Low Flow</u> <input checked="" type="checkbox"/> Micro Purge <input type="checkbox"/> Intake Depth (feet below TOC) <u>~81'</u>									
Sampling Method: <u>Teflon Bailer</u> <input type="checkbox"/> Disposable Bailer <input checked="" type="checkbox"/> Dedicated Tubing   Other: _____									
<b>Casing Volume Information</b>				<b>Purging Calculations</b>					
Casing Diameter (Circle): <u>2"</u> <u>4"</u> <u>6"</u> Other				Casing Volumes (CV):					
Casing Multiplier (CM)(gallons/foot): <u>0.16</u> <u>0.65</u> <u>1.47</u>				WC _____ x CM _____ = _____ (CV)(gal) x 3.0 CV (gal) = _____ PV					
<b>Monitoring Measurements</b>									
Depth to LNAPL (feet): <u>—</u>				Total Well Depth (feet): <u>85.90</u>					
Depth to Water (DTW)(feet): <u>76.44</u>				Water Column (WC)(feet): <u>9.46</u>					
LNAPL Thickness (ft): <u>—</u>				Purging Start Time: <u>1427</u>					
<b>Purging Data</b>									
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
<u>1431</u>	<u>76.64</u>	<u>2.00</u>	<u>13.97</u>	<u>260</u>	<u>CLOUDY</u>	<u>5.56</u>	<u>11.43</u>	<u>-8.2</u>	
<u>1440</u>	<u>76.61</u>	<u>2.50</u>	<u>14.55</u>	<u>262</u>	<u>CLOUDY</u>	<u>5.70</u>	<u>11.30</u>	<u>-11.5</u>	
<u>1443</u>	<u>76.64</u>	<u>3.00</u>	<u>14.36</u>	<u>259</u>	<u>CLOUDY</u>	<u>5.66</u>	<u>11.20</u>	<u>-12.3</u>	
<u>1446</u>	<u>76.64</u>	<u>3.50</u>	<u>14.34</u>	<u>257</u>	<u>CLOUDY</u>	<u>5.33</u>	<u>11.13</u>	<u>-13.2</u>	
<b>Sample Data</b>									
Sample ID: <u>GW-13D</u>		Time of Sample: <u>1450</u>		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			
<b>Well Recovery Data</b>									
Maximum Drawdown (DTWm)(feet): <u>76.64</u>				Approximate Flow Rate (GPM): <u>0.092 / ~350 mL/min</u>					
Recovery Type: <input checked="" type="checkbox"/> Fast <input type="checkbox"/> Slow				% Recovery = <u>100</u>					
Purge Water Disposition (Attach Drum Inventory Log - FLD 108):									
Comments:									

<b>ATLAS</b>		<b>Monitoring Well Purging and Sampling Log</b>					FLD-103			
							Revision 1.0			
							Jul-08			
ATC Branch: Seattle - 10282		Date: 12/6/23			Page 1 of 1					
ATC Representative(s): IA, MR		Project: P66 AOC 2063								
Contact Information: (206) 781-1449		Location: Burien								
Well ID: GW-145		Project No: 2076000087			Task No: —					
		Weather: Overcast			Temperature: 50's					
<b>Purging &amp; Sampling Instrumentation &amp; Method</b>										
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 <input checked="" type="checkbox"/> Submersible Pump      Peristaltic Pump      Other: _____										
3 Well Volumes      Low Flow <input checked="" type="checkbox"/> Micro Purge      Intake Depth (feet below TOC)      ~ 46'										
Sampling Method: Teflon Bailer      Disposable Bailer <input checked="" type="checkbox"/> Dedicated Tubing      Other: _____										
<b>Casing Volume Information</b>				<b>Purging Calculations</b>						
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						
<b>Monitoring Measurements</b>										
Depth to LNAPL (feet): —				Total Well Depth (feet): 49.99						
Depth to Water (DTW)(feet): 42.01				Water Column (WC)(feet): 7.98						
LNAPL Thickness (ft): —				Purging Start Time: 1257						
<b>Purging Data</b>										
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	43.37	1.25	14.97	275	CL	1.00	12.03	-19.1		
1310	43.67	1.50	15.17	283	CL	0.84	11.93	-19.7		
1313	44.09	1.75	14.93	285	CL	0.79	11.85	-20.2		
1316	44.64	2.00	14.90	285	CL	0.77	11.75	-20.5		
<b>Sample Data</b>										
Sample ID: GW-145		Time of Sample: 1320		Filtered (yes/no)		Preservatives	Analytical Parameters			
Container Types, Volumes, & Quantities:				NO		HCl	Gx, VOCs			
6-40ml VOAs				NO/Lab Filtered		HNO3	Pb, Dissolved Pb			
<b>Well Recovery Data</b>										
Maximum Drawdown (DTW/m)(feet): 44.64				Approximate Flow Rate (GPM): 0.079 / ~ 300 ml/min				in		
Recovery Type: <input checked="" type="checkbox"/> Fast      Slow				% Recovery = 100						
Purge Water Disposition (Attach Drum Inventory Log - FLD 108):										
Comments: v. strong PO in purge water										

<b>ATLAS</b>		<b>Monitoring Well Purging and Sampling Log</b>				FLD-103				
						Revision 1.0				
						Jul-08				
ATC Branch: Seattle - 10282		Date: <u>12/6/23</u>	Page 1 of 1							
ATC Representative(s): <u>IA, MR</u>		Project: <u>P66 AOC 2063</u>								
Contact Information: (206) 781-1449		Location: <u>Burien</u>		Project No: <u>2076000087</u> Task No: <u> </u>						
Well ID: <u>GW-15 S</u>		Weather: <u>Overcast</u>		Temperature: <u>50° S</u>						
<b>Purging &amp; Sampling Instrumentation &amp; Method</b>										
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: <input type="checkbox"/> PVC Bailer <input type="checkbox"/> Vacuum Truck <input checked="" type="checkbox"/> Submersible Pump <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Other: _____										
3 Well Volumes <input type="checkbox"/> Low Flow <input checked="" type="checkbox"/> Micro Purge <input type="checkbox"/> Intake Depth (feet below TOC) <u>~40'</u>										
Sampling Method: <input type="checkbox"/> Teflon Bailer <input type="checkbox"/> Disposable Bailer <input checked="" type="checkbox"/> Dedicated Tubing <input type="checkbox"/> Other: _____										
<b>Casing Volume Information</b>			<b>Purging Calculations</b>							
Casing Diameter (Circle): <u>2"</u> <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other			Casing Volumes (CV):							
Casing Multiplier (CM)(gallons/foot): <u>0.16</u> <u>0.65</u> <u>1.47</u>			WC _____ x CM _____ = _____ (CV)(gal) x 3.0 CV (gal) = _____ PV							
<b>Monitoring Measurements</b>										
Depth to LNAPL (feet): <u> </u>			Total Well Depth (feet): <u>45.95</u>							
Depth to Water (DTW)(feet): <u>33.69</u>			Water Column (WC)(feet): <u>12.26</u>							
LNAPL Thickness (ft): <u> </u>			Purging Start Time: <u>1107</u>							
<b>Purging Data</b>										
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	
<u>1117</u>	<u>34.86</u>	<u>1.00</u>	<u>14.14</u>	<u>290</u>	<u>CL</u>	<u>0.96</u>	<u>11.15</u>	<u>-14.4</u>		
<u>1120</u>	<u>35.00</u>	<u>1.25</u>	<u>14.96</u>	<u>290</u>	<u>CL</u>	<u>0.94</u>	<u>11.09</u>	<u>-15.2</u>		
<u>1123</u>	<u>35.11</u>	<u>1.50</u>	<u>14.92</u>	<u>291</u>	<u>CL</u>	<u>0.94</u>	<u>11.02</u>	<u>-15.5</u>		
<b>Sample Data</b>										
Sample ID: <u>GW-15 S</u>			Time of Sample: <u>1125</u>			Filtered (yes/no)	Preservatives	Analytical Parameters		
Container Types, Volumes, & Quantities:						NO	HCl	Gx, VOCs		
6-40ml VOAs						NO/Lab Filtered	HNO3	Pb, Dissolved Pb		
2-250ml PE										
<b>Well Recovery Data</b>										
Maximum Drawdown (DTWm)(feet): <u>35.11</u>			Approximate Flow Rate (GPM): <u>0.092 / ~350 mL/min</u>							
Recovery Type: <input checked="" type="checkbox"/> Fast <input type="checkbox"/> Slow			% Recovery = <u>100</u>							
Purge Water Disposition (Attach Drum Inventory Log - FLD 108):										
Comments:										

<b>ATLAS</b>	<b>Monitoring Well Purging and Sampling Log</b>					FLD-103			
						Revision 1.0			
						Jul-08			
ATC Branch: Seattle - 10282	Date: <u>12/6/23</u>	Page <u>1</u> of <u>1</u>							
ATC Representative(s): <u>IA, MR</u>	Project: <u>P66 AOC 2063</u>								
Contact Information: (206) 781-1449	Location: <u>Burien</u>	Project No: <u>2076000087</u>	Task No: <u>-</u>						
Well ID: <u>GW-15D</u>	Weather: <u>Overcast</u>	Temperature: <u>50's</u>							
<b>Purging &amp; Sampling Instrumentation &amp; Method</b>									
Water Level Meter (Model/ID): <u>Envirotape</u>	Interface Probe (Model/ID): <u>NA</u>								
Water Quality Meter (Model/ID): <u>YSI 556 MPS</u>	Decontamination Method: <u>Alconox/DI Water</u>								
Purging Method: <u>PVC Bailer</u>	Vacuum Truck	<input checked="" type="checkbox"/>	Submersible Pump	Peristaltic Pump	Other: _____				
3 Well Volumes	Low Flow	<input checked="" type="checkbox"/>	Micro Purge	Intake Depth (feet below TOC)	<u>~ 63'</u>				
Sampling Method: <u>Teflon Bailer</u>	Disposable Bailer	<input checked="" type="checkbox"/>	Dedicated Tubing	Other: _____					
<b>Casing Volume Information</b>			<b>Purging Calculations</b>						
Casing Diameter (Circle): <u>2"</u>	<u>4"</u>	<u>6"</u>	Other	Casing Volumes (CV):					
Casing Multiplier (CM)(gallons/foot): <u>0.16</u>	<u>0.65</u>	<u>1.47</u>		WC	CM	= (CV)(gal) × 3.0 CV (gal) = PV			
<b>Monitoring Measurements</b>									
Depth to LNAPL (feet): <u>—</u>	Total Well Depth (feet): <u>74.27</u>								
Depth to Water (DTW)(feet): <u>53.79</u>	Water Column (WC)(feet): <u>20.48</u>								
LNAPL Thickness (ft): <u>—</u>	Purging Start Time: <u>1034</u>								
<b>Purging Data</b>									
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
1044	54.82	1.00	14.16	218	SEMI-CLOUDY	3.52	11.14	-16.4	
1047	54.59	1.25	14.25	217		3.52	11.05	-16.4	
1050	54.33	1.50	14.49	216	↓	3.51	10.99	-16.6	
<b>Sample Data</b>									
Sample ID: <u>GW-15D</u>	Time of Sample: <u>1050</u>	Filtered (yes/no)	Preservatives	Analytical Parameters					
Container Types, Volumes, & Quantities:		NO	HCl	Gx, VOCs					
6-40ml VOAs		NO/Lab Filtered	HNO3	Pb, Dissolved Pb					
2-250ml PE									
<b>Well Recovery Data</b>									
Maximum Drawdown (DTW <sub>m</sub> )(feet): <u>54.82</u>	Approximate Flow Rate (GPM): <u>0.079 / ~ 300 mL/min</u>								
Recovery Type: <u>20</u> Fast <u>Slow</u>	% Recovery = <u>100</u>								
Purge Water Disposition (Attach Drum Inventory Log - FLD 108):									
Comments:									

<b>ATLAS</b>		<b>Monitoring Well Purging and Sampling Log</b>				FLD-103		
						Revision 1.0		
						Jul-08		
ATC Branch: Seattle - 10282		Date: 12/6/23		Page 1 of 1				
ATC Representative(s): IA, MR		Project: P66 ADC 2063						
Contact Information: (206) 781-1449		Location: Burien						
Well ID: GWR-18D		Project No: Z076000087		Task No: —				
		Weather: Overcast		Temperature: 50's				
<b>Purging &amp; Sampling Instrumentation &amp; Method</b>								
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 <input checked="" type="checkbox"/> Submersible Pump Peristaltic Pump Other: _____								
3 Well Volumes Low Flow <input checked="" type="checkbox"/> Micro Purge Intake Depth (feet below TOC) ~84'								
Sampling Method: Teflon Bailer Disposable Bailer <input checked="" type="checkbox"/> Dedicated Tubing Other: _____								
<b>Casing Volume Information</b>				<b>Purging Calculations</b>				
Casing Diameter (Circle): 2" 4" 6" Other				Casing Volumes (CV):				
Casing Multiplier (CM)(gallons/ft <sup>3</sup> ): 0.16 0.65 1.47				WC _____ x CM _____ = _____ (CV)(gal) x 3.0 CV (gal) = _____ PV				
<b>Monitoring Measurements</b>								
Depth to LNAPL (feet): —				Total Well Depth (feet): 91.43				
Depth to Water (DTW)(feet): 75.66				Water Column (WC)(feet): 15.77				
LNAPL Thickness (ft): —				Purging Start Time: 0927				
<b>Purging Data</b>								
Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU TURBID	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1) (± 10 mV)	ORP (mV) Other
0937	78.58	1.50	14.46	258	CLOUDY	1.29	12.26	-17.6
0940	78.48	1.75	14.64	261	CLOUDY	1.16	12.07	-18.3
0943	78.53	2.00	14.83	259	CLOUDY	1.10	11.98	-18.4
0946	78.49	2.25	14.88	261	↓	1.01	11.88	-18.6
<b>Sample Data</b>								
Sample ID: GWR-18D		Time of Sample: 0950		Filtered (yes/no)	Preservatives	Analytical Parameters		
Container Types, Volumes, & Quantities:				NO	HCl	Gx, VOCs		
6-40ml VOAs				NO/Lab Filtered	HNO3	Pb, Dissolved Pb		
<b>Well Recovery Data</b>								
Maximum Drawdown (DTW <sub>m</sub> )(feet): 78.58				Approximate Flow Rate (GPM): 0.092 / ~350 mL/min				
Recovery Type: <input checked="" type="checkbox"/> Fast Slow				% Recovery = 100				
Purge Water Disposition (Attach Drum Inventory Log - FLD 108):								
Comments:								





---

**APPENDIX C**

**WASTE DISPOSAL DOCUMENTATION**