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Subject:

Former BP Facility No. WA-11060 (NW2463) - 2017 Annual Site Status Report

ENVIRONMENT

Date:

January 22, 2018

Site Address: 4580 Fauntleroy Way Southwest, Seattle, WA 98126

On behalf of BP West Coast Products, LLC. (BP), Arcadis U.S., Inc. is pleased to submit this annual summary of site activities conducted at the Former BP Facility No. 11060 (site) in 2017. Results and findings from work completed at the site are summarized below and in the attached data tables and figures.

Current Site Use: Active Station

Contact

Christopher Dotson

Phone:

503-785-9383

Email:

Christopher.Dotson@arcadis.com

Our ref:

GP09BPNA.WA48

2017 Groundwater Monitoring Summary

Groundwater Monitoring Schedule: Semi-annual

Sample Methodology:

First Quarter:	No purge and Sample
Second Quarter:	No event conducted
Third Quarter:	No purge and Sample
Fourth Quarter:	No event conducted

Non-aqueous Phase Liquid Present at Site: Yes (thicknesses listed below)

First Quarter:	0.78 foot (EW-1), 0.84 foot (EW-3) and 0.07 foot (MW-4)– 2/22/2017
Third Quarter	0.60 foot (EW-1), 0.76 foot (EW-3), 1.68 feet (MW-4) – 8/29/2017

Site Constituents of Concern above Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) during reporting period:

- Total Petroleum Hydrocarbons (TPH) as gasoline range organics (GRO):
  First Quarter (Q1) – MW-2, MW-5;
  Third Quarter (Q3) – GMW-1, MW-2, MW-3, MW-5.
- TPH as diesel range organics:
  Q1 – MW-2, MW-5;
  Q3 – MW-1, MW-2, MW-5.
- Benzene:
  Q3 – MW-2, MW-5.

Observed Depth to Water per Event:

First Quarter:	20.02 (MW-3) to 25.06 (EW-3) feet below top of casing (btoc) – 2/22/2017
Third Quarter:	22.47 (MW-9) to 26.75 (EW-3) feet btoc – 8/29/2017

Groundwater Elevations and Flow Direction:

Event	Elevation Range	Interpreted Groundwater Flow Direction
First Quarter:	241.64 (MW-9) to 245.98 (MW-3) feet above North American Vertical Datum 88 (NAVD 88)	Southeast
Third Quarter:	240.88 (MW-9) to 242.62 (MW-4) feet above NAVD 88	Northeast

2017 Remediation System Operation and Maintenance (O&M) Summary

System Startup Date:	April 20, 2016
Remedial Technology:	Air Sparge and Soil Vapor Extraction
System Operation:	Yes
System O&M Schedule:	Monthly
Total Operational Time in 2017:	6,341 hours
Operational Percentage in 2017:	70.08 percent
Permit Conditions Met:	Yes, Puget Sound Clean Air Agency (PSCAA)

Calculated Mass Removal Totals:

Calendar Year (2017)	Cumulative
VOC: 976.65 pounds (lbs)	VOC: 1414.75
GRO: No Analytical Samples Collected	GRO: 1584.1 lbs

Note:
Estimated volatile organic compound (VOC) mass removed using photoionization detector field measurements.
Estimated GRO mass removed using analytical results.

2017 Additional Site Activities

No additional activities were conducted at the site in 2017.

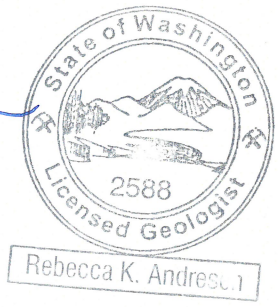
If you have any questions please contact Christopher Dotson at 503-785-9383 or Christopher.Dotson@arcadis.com.

Sincerely,

Arcadis U.S., Inc.

Christopher Dotson
Project Manager

Rebecca Andresen, L.G.
Vice President



Copies:

Richard Wright, Property Owner

Enclosures:

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Attachment A	Groundwater Monitoring Field Data Sheets
Attachment B	Laboratory Report and Chain-of-Custody Documentation
Attachment C	Puget Sound Clean Air Agency Permit

TABLES

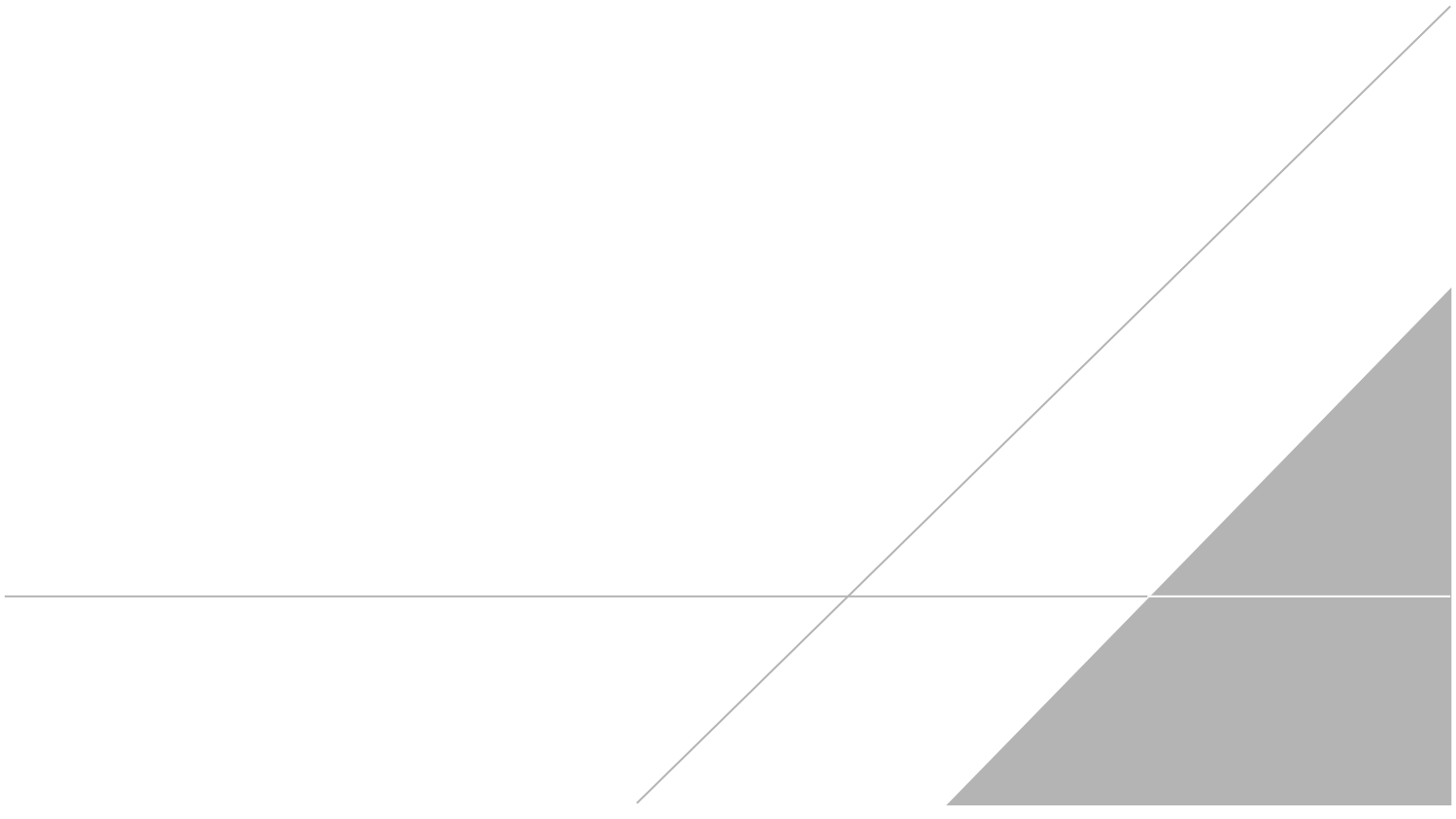

Table 1
Groundwater Gauging Data and Select Analytical Results
WA-11060

4580 Fauntleroy Way Sw, Seattle, WA 98126

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

Well	Date	Notes	TOC	DTW	NAPL	GWE	GRO	DRO	HO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L							**800/1,000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
AS-1	5/7/2015	(NS)	--	23.30	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--
AS-1	3/2/2016	(NS)	--	23.31	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--
AS-2	3/2/2016	(NS)	--	21.18	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--
AS-3	3/2/2016	(NS)	--	21.63	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--
AS-4	3/2/2016	(NS)	--	21.65	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--
AS-5	3/2/2016	(DRY)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AS-6	3/2/2016	(NS)	--	25.61	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--
CW-2	3/2/2016	(NS)	--	19.53	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--
CW-3	3/2/2016	(NS)	--	21.57	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--
CW-4	3/2/2016	(NS)	--	20.61	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-1	5/9/2013	(NAPL)	268.20	24.49	0.17	243.85	--	--	--	--	--	--	--	--	--	--	--	--
EW-1	5/7/2015	(NAPL)	268.20	25.75	1.02	243.27	--	--	--	--	--	--	--	--	--	--	--	--
EW-1	3/2/2016	(NS)	268.20	24.81	0.0	243.39	--	--	--	--	--	--	--	--	--	--	--	--
EW-1	6/6/2016	(NAPL)	268.20	25.94	0.66	242.79	--	--	--	--	--	--	--	--	--	--	--	--
EW-1	9/12/2016	(NAPL)	268.20	26.89	0.73	241.89	--	--	--	--	--	--	--	--	--	--	--	--
EW-1	12/12/2016	(NAPL)	268.20	25.49	0.79	243.34	--	--	--	--	--	--	--	--	--	--	--	--
EW-1	2/22/2017	(NAPL)	268.20	24.98	0.78	243.84	--	--	--	--	--	--	--	--	--	--	--	--
EW-1	8/29/2017	(NS)	268.20	26.28	0.60	242.40	--	--	--	--	--	--	--	--	--	--	--	--
EW-2	5/9/2013	(NS)	267.93	24.11	0.0	243.82	--	--	--	--	--	--	--	--	--	--	--	--
EW-2	5/7/2015	(NS)	267.93	24.78	0.0	243.15	--	--	--	--	--	--	--	--	--	--	--	--
EW-2	3/2/2016	(NS)	267.93	24.80	0.0	243.13	--	--	--	--	--	--	--	--	--	--	--	--
EW-2	6/6/2016	(NS)	267.93	25.17	0.0	242.76	--	--	--	--	--	--	--	--	--	--	--	--
EW-2	9/12/2016	(NS)	267.93	26.22	0.0	241.71	--	--	--	--	--	--	--	--	--	--	--	--
EW-2	12/12/2016	(NS)	267.93	24.64	0.0	243.29	--	--	--	--	--	--	--	--	--	--	--	--
EW-2	2/22/2017	(NS)	267.93	24.10	0.0	243.83	--	--	--	--	--	--	--	--	--	--	--	--
EW-2	8/29/2017	(NS)	267.93	25.56	0.0	242.37	--	--	--	--	--	--	--	--	--	--	--	--
EW-3	5/9/2013	(NAPL)	268.50	24.90	0.31	243.85	--	--	--	--	--	--	--	--	--	--	--	--
EW-3	5/7/2015	(NAPL)	268.50	25.77	2.54	244.76	--	--	--	--	--	--	--	--	--	--	--	--
EW-3	3/2/2016	(NAPL)	268.50	25.44	0.25	243.26	--	--	--	--	--	--	--	--	--	--	--	--
EW-3	9/12/2016	(NAPL)	268.50	27.17	1.54	242.56	--	--	--	--	--	--	--	--	--	--	--	--
EW-3	12/12/2016	(NAPL)	268.50	25.58	0.83	243.58	--	--	--	--	--	--	--	--	--	--	--	--
EW-3	2/22/2017	(NAPL)	268.50	25.06	0.84	244.11	--	--	--	--	--	--	--	--	--	--	--	--
EW-3	8/29/2017	(NS)	268.50	26.75	0.76	242.36	--	--	--	--	--	--	--	--	--	--	--	--
GMW-1	5/10/2011	(NP)	--	22.08	0.0	--	**5,930**	**1,900**	<420	2.4	<1.0	69.7	94.8	<1.0	--	--	**28.4**	--

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Groundwater Gauging Data and Select Analytical Results
WA-11060

4580 Fauntleroy Way Sw, Seattle, WA 98126

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

Well	Date	Notes	TOC	DTW	NAPL	GWE	GRO	DRO	HO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L							**800/1,000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
GMW-1	11/29/2011	(NP)	--	23.83	0.0	--	**6,080**	**610**	<380	<1.0	<1.0	86.9	113	--	--	--	<10.0	--
GMW-1	6/1/2012	(NM)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GMW-1	11/29/2012	(NM)	265.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GMW-1	5/9/2013	(NP)	265.63	22.58	0.0	243.05	**1,010**	<420	<420	<1.0	<1.0	4.4	4.6	<1.0	--	--	<10.0	<10.0
GMW-1	11/19/2013	(NP)	265.63	24.00	0.0	241.63	**1,400**	**2,500**	<73	<0.50	<0.70	6.6	6.8	<0.50	--	--	**16.7**	1.2
GMW-1	5/13/2014	(NS)	265.63	22.83	0.0	242.80	--	--	--	--	--	--	--	--	--	--	--	--
GMW-1	5/14/2014	(NP)	265.63	--	--	--	590	**560**	<66	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	<4.7	<4.7
GMW-1	5/7/2015	(NP)	265.63	23.48	0.0	242.15	**1,600**	480	<66	<0.50	<0.50	10	10	<0.50	--	--	<4.7	<4.7
GMW-1	3/2/2016	(NP)	265.63	22.48	0.0	243.15	**1,400**	<46	<100	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
GMW-1	6/6/2016	(NP)	265.63	23.51	0.0	242.12	**3,300**	130	<100	<0.50	<0.50	5.3	4.0	<0.50	--	--	--	--
GMW-1	9/12/2016	(NP)	265.63	24.89	0.0	240.74	**4,600**	210	<67	<0.50	<0.50	32	34	<0.50	--	--	--	--
GMW-1	9/12/2016	(Dup)(NP)	265.63	24.89	0.0	240.74	**4,400**	310	120(J)	<0.50	<0.50	32	34	<0.50	--	--	--	--
GMW-1	12/12/2016	(NP)	265.63	22.95	0.0	242.68	350	<50	400	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
GMW-1	2/22/2017	(NP)	265.63	22.02	0.0	243.61	82.2(J)	<82.5	<165	<0.331	<0.412	<0.384	<1.06	<0.367	--	--	--	--
GMW-1	8/29/2017	(NP)	265.63	23.86	0.0	241.77	**2,070**	216	104(J)	<0.331	0.480(J)	2.45	2.66(J)	<0.367	--	--	--	--
MW-1	5/11/1993		99.89	23.02	--	76.87	**3,300**	--	--	**82**	11	8	14	--	--	--	--	--
MW-1	3/4/1994		99.89	24.32	--	75.57	**830**	**580**	--	**6**	3	3	11	--	--	--	**38**	<3
MW-1	7/6/1994		99.89	24.60	--	75.29	**900**	<250	--	5	<0.5	2	10	--	--	--	--	--
MW-1	10/7/1994		99.89	24.97	--	74.92	**1,500**	--	--	**6**	<0.5	3	11	--	--	--	--	--
MW-1	12/28/1994		99.89	24.86	--	75.03	**1,400**	--	--	5	<0.5	2	7	--	--	--	--	--
MW-1	3/13/1995		99.89	24.16	--	75.73	**1,400**	--	--	**16**	<0.5	3	9	--	--	--	--	--
MW-1	6/30/1995		99.89	23.98	--	75.91	**1,400**	--	--	4	<0.5	3	7	--	--	--	--	--
MW-1	9/6/1995		99.89	24.30	--	75.59	**1,300**	--	--	5	<0.5	3	6	--	--	--	--	--
MW-1	12/8/1995		99.89	24.41	--	75.48	**1,300**	--	--	**7**	2	2	7	--	--	--	--	--
MW-1	3/11/1996		99.89	23.11	--	76.78	**900**	--	--	3	<0.5	<0.5	1	--	--	--	--	--
MW-1	6/18/1996		99.89	22.80	--	77.09	400	--	--	1	1	<0.5	2	--	--	--	--	--
MW-1	9/9/1996		99.89	23.11	--	76.78	600	--	--	2	<0.5	1	1	13	--	--	--	--
MW-1	12/11/1996		99.89	23.07	--	76.82	710	--	--	4	2	2	4	<10	--	--	--	--
MW-1	3/13/1997		99.89	22.12	--	77.77	100	--	--	<0.5	<0.5	<0.5	<1.0	<5	--	--	--	--
MW-1	6/5/1997		99.89	21.75	--	78.14	250	--	--	2	2	<0.5	<1.5	5	--	--	--	--
MW-1	9/5/1997		99.89	22.03	--	77.86	300	--	--	**8**	4	2	6	8	--	--	--	--
MW-1	4/2/1998		99.89	21.27	--	78.62	210	--	--	1	3	<0.5	<1.5	<5	--	--	--	--
MW-1	6/8/1998		99.89	21.53	--	78.36	300	--	--	<0.5	3	1	4	6	--	--	--	--
MW-1	12/9/1998		99.89	22.22	--	77.67	<500	--	--	<0.5	<5.0	<5.0	<5.0	<5.0	--	--	--	--
MW-1	6/26/1999		99.89	21.08	--	78.81	<100	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--
MW-1	9/28/1999		99.89	21.88	--	78.01	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	1/19/2000		99.89	21.46	--	78.43	<50	--	--	<0.5	4	1	3	<0.5	--	--	--	--

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Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L							**800/1,000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
MW-1	3/24/2000		99.89	21.40	--	78.49	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	7/2/2000		99.89	21.92	--	77.97	120	--	--	1	<0.5	1	2	2	--	--	--	--
MW-1	9/14/2000		99.89	22.54	--	77.35	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	12/14/2000		99.89	22.81	--	77.08	**1,700**	--	--	**<10**	19	<10	<30	**<40**	--	--	--	--
MW-1	9/22/2001		99.89	23.55	--	76.34	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	12/9/2001		99.89	23.63	--	76.26	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	3/20/2002		99.89	22.88	--	77.01	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	6/11/2002		99.89	23.02	--	76.87	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	12/21/2002	(NS)	99.89	24.54	--	75.35	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	3/19/2003	(NS)	99.89	24.50	--	75.39	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	6/18/2003	(NS)	99.89	24.36	--	75.53	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	9/23/2003	(NS)	99.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	10/21/2003	(P)	99.89	25.04	--	74.85	**3,270**	--	--	**32.5**	4.61	17.3	19.2	<1.00	--	--	--	--
MW-1	6/29/2004	(NS)	99.89	24.22	--	75.67	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	11/15/2004	(NS)	99.89	25.11	--	74.78	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	4/14/2005	(NS)	99.89	25.10	--	74.79	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	12/18/2005	(NP)	99.89	25.46	--	74.43	**2,960**	--	--	**10.8**	2.04	1.23	2.76	<1.00	--	--	--	--
MW-1	6/11/2006	(NP)	99.89	24.54	--	75.35	**1,840**	--	--	**11.4**	1.12	1.6	2.34	19.8	--	--	--	--
MW-1	11/5/2006	(NP)	99.89	25.59	--	74.30	**3,880**	--	--	**73.2**	6.12	2.04	<6.00	--	--	--	--	--
MW-1	9/25/2007	(NP)	99.89	25.08	--	74.81	**1,640**	--	--	**27.8**	1.67	0.86	<3.00	--	--	--	--	--
MW-1	12/31/2007	(NP)	99.89	25.23	--	74.66	**1,970**	--	--	**22.7**	1.34	1.03	<3.00	--	--	--	--	--
MW-1	5/29/2008	(NP)	99.89	25.01	--	74.88	**2,370**	--	--	3.58	0.58	<0.500	<3.00	--	--	--	--	--
MW-1	10/28/2008	(NP)	99.89	25.80	--	74.09	**1,450**	--	--	2.8	1.07	<0.500	<3.00	--	--	--	--	--
MW-1	6/22/2009	(NP)	99.89	26.11	--	73.78	**2,200**	--	--	**30**	5.7	24	30.5	--	--	--	4.9	<2.00
MW-1	12/15/2009	(NP)	99.89	26.31	--	73.58	**1,500**	--	--	**11**	2	4.8	3.6	--	--	--	3.8	<2.00
MW-1	5/24/2010	(NP)	267.43	25.20	--	242.23	**940**	--	--	**18**	<2.5	<2.5	6.4	--	--	--	--	--
MW-1	5/24/2010	(Dup)(NP)	267.43	25.20	--	242.23	**940**	--	--	**22**	<2.5	<2.5	6.8	--	--	--	--	--
MW-1	10/12/2010	(NP)	267.43	25.09	0.0	242.34	**849**	--	--	2.8	<1.0	1.2	<3.0	5.2	--	--	<10.0	--
MW-1	5/10/2011	(NP)	267.43	23.60	0.0	243.83	642	**840**	<420	**17.8**	6.6	1.8	10.9	2.5	--	--	<10.0	--
MW-1	11/29/2011	(NP)	267.43	24.84	0.0	242.59	**815**	<75	<380	**5.5**	<1.0	<1.0	<3.0	--	--	--	10.3	--
MW-1	6/1/2012	(NP)	267.43	23.67	0.0	243.76	544	362	<396	3.6	<1.0	<1.0	3.0	7.4	--	--	<10.0	<10.0
MW-1	11/29/2012	(NP)	267.43	24.00	0.0	243.43	**1,320**	<430	<430	1.2	<1.0	<1.0	<3.0	<1.0	--	--	11.3	<3.0
MW-1	5/9/2013	(NP)	267.43	23.79	0.0	243.64	557	**620**	<430	**6.3**	<1.0	<1.0	4.1	1.6	--	--	<10.0	<10.0
MW-1	11/19/2013	(NP)	267.43	25.30	0.0	242.13	470	400	320	1.9(J)	<0.70	<0.80	1.7(J)	1.5(J)	--	--	4.8	0.15(J)
MW-1	5/13/2014	(NP)	267.43	24.12	0.0	243.31	490	250	110(J)	1.4	<0.50	<0.50	0.57(J)	0.67(J)	--	--	6.9(J)	<4.7
MW-1	5/7/2015	(NP)	267.43	24.26	0.0	243.17	610	270	190(J)	1.2	<0.50	<0.50	<0.50	<0.50	--	--	**18.7**	7.1(J)
MW-1	3/2/2016	(NP)	267.43	24.53	0.0	242.90	460	140	<110	1.2	<0.50	0.77(J)	3.0	<0.50	--	--	--	--

Table 1
Groundwater Gauging Data and Select Analytical Results
WA-11060

4580 Fauntleroy Way Sw, Seattle, WA 98126

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

Well	Date	Notes	TOC	DTW	NAPL	GWE	GRO	DRO	HO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L							**800/1,000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
MW-1	6/6/2016	(NS)	267.43	24.82	0.0	242.61	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	9/12/2016	(NS, IW)	267.43	26.88	0.0	240.55	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	12/12/2016	(NS)	267.43	24.76	0.0	242.67	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	2/22/2017	(NP)	267.43	24.11	0.0	243.32	212	447	222(J)	<0.331	<0.412	<0.384	<1.06	<0.367	--	--	--	--
MW-1	8/29/2017	(NP)	267.43	25.20	0.0	242.23	526	**611**	450	<0.331	<0.412	<0.384	<1.06	<0.367	--	--	--	--
MW-2	5/11/1993		99.05	22.98	--	76.07	**17,000**	--	--	**2,500**	48	100	240	--	--	--	--	--
MW-2	3/4/1994		99.05	24.30	--	74.75	**4,300**	**1,300**	--	**1,500**	20	130	180	--	--	--	5	<3
MW-2	7/6/1994		99.05	24.54	--	74.51	**4,400**	390	--	**1,100**	16	53	97	--	--	--	--	--
MW-2	10/7/1994		99.05	24.94	--	74.11	**4,400**	--	--	**1,100**	18	57	82	--	--	--	--	--
MW-2	12/28/1994		99.05	24.60	--	74.45	**2,100**	--	--	**250**	5	13	14	--	--	--	--	--
MW-2	3/13/1995		99.05	23.84	--	75.21	**2,700**	--	--	**200**	12	29	50	--	--	--	--	--
MW-2	6/30/1995		99.05	23.72	--	75.33	**3,400**	--	--	**400**	8	50	39	--	--	--	--	--
MW-2	9/6/1995		99.05	23.97	--	75.08	**3,400**	--	--	**350**	8	50	35	--	--	--	--	--
MW-2	12/8/1995		99.05	23.97	--	75.08	**3,100**	--	--	**610**	5	29	36	--	--	--	--	--
MW-2	3/11/1996		99.05	22.66	--	76.39	**5,400**	--	--	**280**	12	100	120	--	--	--	--	--
MW-2	6/18/1996		99.05	22.18	--	76.87	**4,500**	--	--	**280**	12	130	56	--	--	--	--	--
MW-2	9/9/1996		99.05	22.72	--	76.33	**4,100**	--	--	**790**	5	78	35	<1.0	--	--	--	--
MW-2	12/11/1996		99.05	22.67	--	76.38	**3,700**	--	--	**460**	13	65	41	**43**	--	--	--	--
MW-2	3/13/1997		99.05	21.91	--	77.14	**3,200**	--	--	**140**	12	130	48	**<50**	--	--	--	--
MW-2	6/5/1997		99.05	21.06	--	77.99	**3,400**	--	--	**160**	22	180	79	**<100**	--	--	--	--
MW-2	9/5/1997		99.05	21.74	--	77.31	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	4/2/1998		99.05	20.71	--	78.34	**4,700**	--	--	**170**	51	35	210	**<50**	--	--	--	--
MW-2	6/8/1998		99.05	21.25	--	77.80	**3,800**	--	--	**420**	26	150	75	**140**	--	--	--	--
MW-2	9/17/1998		99.05	22.10	--	76.95	**2,900**	--	--	**720**	15	79	44	<5.0	--	--	--	--
MW-2	12/9/1998		99.05	21.99	--	77.06	**4,500**	--	--	**520**	8	100	62	<5.0	--	--	--	--
MW-2	3/17/1999		99.05	19.67	--	79.38	**5,000**	--	--	**19**	27	300	230	<5.0	--	--	--	--
MW-2	6/26/1999		99.05	21.26	--	77.79	**3,400**	--	--	**400**	29	160	130	13	--	--	--	--
MW-2	9/28/1999		99.05	21.75	--	77.30	**7,300**	--	--	**690**	20	23	110	**87**	--	--	--	--
MW-2	1/19/2000		99.05	21.12	--	77.93	**8,700**	--	--	**920**	20	260	74	<0.5	--	--	--	--
MW-2	3/24/2000		99.05	20.74	--	78.31	**10,000**	--	--	**310**	79	240	97	<5	--	--	--	--
MW-2	7/2/2000		99.05	21.51	--	77.54	**8,200**	--	--	**520**	35	190	85	**49**	--	--	--	--
MW-2	9/14/2000		99.05	22.31	--	76.74	**14,000**	--	--	**1,100**	100	110	100	<5	--	--	--	--
MW-2	12/14/2000		99.05	22.97	--	76.08	**15,000**	--	--	**740**	<10	68	<30	**<40**	--	--	--	--
MW-2	9/22/2001		99.05	23.59	--	75.46	**12,000**	--	--	**180**	9	240	110	20	--	--	--	--
MW-2	12/9/2001		99.05	23.27	--	75.78	**14,000**	--	--	**310**	9.5	100	96	<4.0	--	--	--	--
MW-2	3/20/2002		99.05	22.41	--	76.64	**15,000**	--	--	**250**	<5.0	220	98	**280**	--	--	--	--
MW-2	6/11/2002		99.05	22.61	--	76.44	**13,000**	--	--	**290**	<10	160	57	**<40**	--	--	--	--

Table 1
Groundwater Gauging Data and Select Analytical Results
WA-11060

4580 Fauntleroy Way Sw, Seattle, WA 98126

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

Well	Date	Notes	TOC	DTW	NAPL	GWE	GRO	DRO	HO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L							**800/1,000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
MW-2	12/21/2002	(P)	99.05	24.30	--	74.75	**5,970**	--	--	**111**	13.4	211	70.3	**148**	--	--	--	--
MW-2	3/19/2003	(P)	99.05	23.90	0.0	75.15	**5,270**	--	--	**79.9**	8.71	156	55	**<25.0**	--	--	--	--
MW-2	6/18/2003	(P)	99.05	23.87	--	75.18	**6,770**	--	--	**36.7**	14.7	245	119	**143**	--	--	--	--
MW-2	9/23/2003	(P)	99.05	24.33	0.0	74.72	**6,490**	--	--	**40.5**	15.8	179	103	<20.0	--	--	--	--
MW-2	10/21/2003	(P)	99.05	24.38	--	74.67	**4,600**	--	--	**31.1**	9.38	86	61	<1.00	--	--	--	--
MW-2	6/29/2004	(NP)	99.05	23.74	--	75.31	**5,550**	--	--	**17.8**	11.2	228	76.5	**95.2**	--	--	--	--
MW-2	11/15/2004	(NP)	99.05	24.70	--	74.35	**5,670**	--	--	**12.3**	6.11	135	63.3	<2.00	--	--	--	--
MW-2	4/14/2005	(NP)	99.05	24.69	--	74.36	**4,680**	--	--	**130**	2.8	41.8	26.6	<2.00	--	--	--	--
MW-2	12/18/2005	(NP)	99.05	25.15	--	73.90	**5,700**	--	--	**122**	3.5	43.9	27.8	<5.00	--	--	--	--
MW-2	6/11/2006	(NP)	99.05	24.01	--	75.04	**5,450**	--	--	4.48	5.8	118	56.7	<2.00	--	--	--	--
MW-2	11/5/2006	(NP)	99.05	25.40	--	73.65	**7,490**	--	--	**263**	<5.00	46.2	<30.0	--	--	--	--	--
MW-2	9/25/2007	(NP)	99.05	24.72	--	74.33	**7,530**	--	--	**715**	9.74	50.8	64	--	--	--	--	--
MW-2	12/31/2007	(NP)	99.05	24.67	--	74.38	**6,000**	--	--	**477**	10.6	69.3	76.3	--	--	--	--	--
MW-2	5/29/2008	(NP)	99.05	24.73	--	74.32	**9,600**	--	--	**648**	11.1	55.9	48.4	--	--	--	--	--
MW-2	10/28/2008	(NP)	99.05	25.74	--	73.31	**10,300**	--	--	**1,430**	16	194	145	--	--	--	--	--
MW-2	6/22/2009	(NP)	99.05	25.91	--	73.14	**4,800**	--	--	**1,200**	40	100	130	--	--	--	<2.00	<2.00
MW-2	12/15/2009	(NP)	99.05	25.87	--	73.18	**4,300**	--	--	**1,600**	8.2	66	82	--	--	--	<2.00	<2.00
MW-2	5/24/2010	(NP)	266.69	24.64	--	242.05	**4,200**	--	--	**320**	7.7	69	84	--	--	--	--	--
MW-2	10/12/2010	(NP)	266.69	25.03	0.0	241.66	**3,590**	--	--	**1,890**	14.8	54.8	39.7	15.5	--	--	<10.0	--
MW-2	5/10/2011	(NP)	266.69	23.23	0.0	243.46	**5,520**	**1,000**	**2,000**	**281**	4.2	69.9	49.9	7.3	--	--	<10.0	--
MW-2	5/10/2011	(Dup)(NP)	266.69	23.23	0.0	243.46	**5,000**	**850**	**1,600**	**156**	3.9	76.3	53.2	5.6	--	--	<10.0	--
MW-2	11/29/2011	(NP)	266.69	24.82	0.0	241.87	**5,640**	98	<380	**549**	7.0	82.6	61.6	--	--	--	<10.0	--
MW-2	6/1/2012	(NP)	266.69	23.60	0.0	243.09	**2,940**	**2,240**	**3,080**	**107**	12.7	64.2	46.1	5.0	--	--	10.0	<10.0
MW-2	11/29/2012	(NP)	266.69	23.86	0.0	242.83	**10,400**	**2,100**	**760**	**399**	10.2	187	154	14.7	--	--	7.7	3.2
MW-2	5/9/2013	(NP)	266.69	23.41	0.0	243.28	**3,660**	**1,700**	<400	**42.9**	6.2	115	35.4	<5.0	--	--	12.3	<10.0
MW-2	5/9/2013	(Dup)(NP)	266.69	23.41	0.0	243.28	**4,210**	**2,700**	420	**63.4**	8.5	124	47.7	<5.0	--	--	12.4	<10.0
MW-2	11/19/2013	(NP)	266.69	24.40	0.0	242.99	**1,400**	280	100(J)	**7.3**	4.4(J)	17	40	6.3	--	--	9.8	3.2
MW-2	11/19/2013	(Dup)(NP)	266.69	24.40	0.0	242.99	**1,700**	--	--	**8.8**	6.4	17	46	6.4	--	--	--	--
MW-2	5/13/2014	(NP)	266.69	23.74	0.0	242.95	**3,100**	**1,800**	**880**	**79**	3.3(J)	58	20	6.0	--	--	6.6(J)	<4.7
MW-2	5/7/2015	(NP)	266.69	24.14	0.0	242.55	**2,700**	**1,900**	**690**	**33**	6.1	91	32	2.4	--	--	**34.1**	<4.7
MW-2	5/7/2015	(Dup)(NP)	266.69	24.14	0.0	242.55	**2,100**	--	--	**27**	5.1	74	25	1.9(J)	--	--	--	--
MW-2	3/2/2016	(NP)	266.69	23.79	0.0	242.90	**5,100**	**1,600**	<100	**54**	5.3(J)	94	26	<5.0	--	--	--	--
MW-2	6/6/2016	(NP)	266.69	24.49	0.0	242.20	**5,000**	**880**	**790**	**43**	4.9	92	21	1.1(J)	--	--	--	--
MW-2	6/6/2016	(Dup)(NP)	266.69	24.49	0.0	242.20	**4,900**	**1,300**	**810**	**28**	5.3	94	26	<1.0	--	--	--	--
MW-2	9/12/2016	(NP)	266.69	26.69	0.0	240.00	**5,000**	**710**	**660**	**130**	6.5	83	20	2.2	--	--	--	--
MW-2	12/12/2016	(NP)	266.69	23.96	0.0	242.73	**1,000**	**590**	<110	4.1	0.74(J)	12	10	<0.50	--	--	--	--
MW-2	12/12/2016	(Dup)(NP)	266.69	23.96	0.0	242.73	**1,900**	400	**860**	0.80(J)	<0.50	6.7	1.9	<0.50	--	--	--	--

Table 1
Groundwater Gauging Data and Select Analytical Results
WA-11060

4580 Fauntleroy Way Sw, Seattle, WA 98126

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

Well	Date	Notes	TOC	DTW	NAPL	GWE	GRO	DRO	HO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L							**800/1,000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
MW-2	2/22/2017	(NP)	266.69	23.18	0.0	243.51	**1,310**	**1,370**	321(J)	<0.331	<0.412	2.06	2.08(J)	<0.367	--	--	--	--
MW-2	8/29/2017	(NP)	266.69	24.86	0.0	241.83	**10,000**	**1,070**	242(J)	**27.4**	10.7	90.9	29.4	<0.367	--	--	--	--
MW-2	8/29/2017	(Dup)(NP)	266.69	24.86	0.0	241.83	**12,200**	**1,420**	423	**31.4**	8.19	98.2	30.5	<0.367	--	--	--	--
MW-3	6/7/1993		98.53	22.28	--	76.25	**2,200**	--	--	**140**	7	13	14	--	--	--	--	--
MW-3	3/4/1994		98.53	23.62	--	74.91	**1,200**	**590**	--	**99**	2	11	10	--	--	--	4	<3
MW-3	7/6/1994		98.53	23.84	--	74.69	**1,500**	270	--	**44**	6	26	27	--	--	--	--	--
MW-3	10/7/1994		98.53	24.21	--	74.32	**1,500**	--	--	**63**	4	16	13	--	--	--	--	--
MW-3	12/28/1994		98.53	23.91	--	74.62	**1,800**	--	--	**77**	3	13	9	--	--	--	--	--
MW-3	3/13/1995		98.53	23.12	--	75.41	**1,700**	--	--	**87**	4	18	10	--	--	--	--	--
MW-3	6/30/1995		98.53	23.87	--	74.66	**1,800**	--	--	**90**	3	52	13	--	--	--	--	--
MW-3	9/6/1995		98.53	23.14	--	75.39	**1,700**	--	--	**96**	3	41	14	--	--	--	--	--
MW-3	12/8/1995		98.53	23.20	--	75.33	**1,800**	--	--	**73**	4	23	15	--	--	--	--	--
MW-3	3/11/1996		98.53	21.63	--	76.90	**2,800**	--	--	**120**	11	170	36	--	--	--	--	--
MW-3	6/18/1996		98.53	21.20	--	77.33	**3,500**	--	--	**150**	18	320	59	--	--	--	--	--
MW-3	9/9/1996		98.53	21.67	--	76.86	**3,500**	--	--	**62**	16	220	96	15	--	--	--	--
MW-3	12/11/1996		98.53	21.87	--	76.66	**2,100**	--	--	**96**	9	<0.5	34	<10	--	--	--	--
MW-3	3/13/1997		98.53	20.67	--	77.86	**3,100**	--	--	**97**	13	250	65	**<50**	--	--	--	--
MW-3	6/5/1997		98.53	19.83	--	78.70	**3,900**	--	--	**46**	19	250	130	**<100**	--	--	--	--
MW-3	9/5/1997		98.53	20.72	--	77.81	**4,400**	--	--	**98**	29	270	140	<5	--	--	--	--
MW-3	4/2/1998		98.53	19.63	--	78.90	**3,700**	--	--	**80**	25	320	150	**<50**	--	--	--	--
MW-3	6/8/1998		98.53	20.26	--	78.27	**3,500**	--	--	**60**	22	240	96	**<50**	--	--	--	--
MW-3	9/17/1998		98.53	21.21	--	77.32	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	12/9/1998		98.53	21.06	--	77.47	**3,200**	--	--	**63**	9	170	59	<5.0	--	--	--	--
MW-3	3/17/1999		98.53	18.72	--	79.81	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	6/26/1999		98.53	19.92	--	78.61	**3,100**	--	--	**72**	16	270	52	**56**	--	--	--	--
MW-3	9/28/1999		98.53	20.79	--	77.74	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	1/19/2000		98.53	20.19	--	78.34	**5,700**	--	--	**72**	29	430	110	<0.5	--	--	--	--
MW-3	3/24/2000		98.53	19.64	--	78.89	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	7/2/2000		98.53	20.53	--	78.00	**3,300**	--	--	**35**	18	230	64	7	--	--	--	--
MW-3	9/14/2000		98.53	21.34	--	77.19	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	12/14/2000		98.53	21.90	--	76.63	**5,500**	--	--	**40**	<10	210	<30	**<40**	--	--	--	--
MW-3	9/22/2001		98.53	22.82	--	75.71	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	12/9/2001		98.53	22.50	--	76.03	**4,200**	--	--	**42**	4.1	77	22	<4.0	--	--	--	--
MW-3	3/20/2002		98.53	21.55	--	76.98	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	6/11/2002		98.53	21.69	--	76.84	**8,400**	--	--	**77**	<5.0	320	54	<20	--	--	--	--
MW-3	12/21/2002		98.53	24.37	--	74.16	**3,440**	--	--	**37.7**	3.31	68.6	18.3	**39.3**	--	--	--	--
MW-3	3/19/2003	(NS)	98.53	23.17	--	75.36	--	--	--	--	--	--	--	--	--	--	--	--

Table 1
Groundwater Gauging Data and Select Analytical Results
WA-11060

4580 Fauntleroy Way Sw, Seattle, WA 98126

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

Well	Date	Notes	TOC	DTW	NAPL	GWE	GRO	DRO	HO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L							**800/1,000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
MW-3	6/18/2003		98.53	22.82	--	75.71	**4,020**	--	--	**39.1**	4.22	113	30.3	**62.6**	--	--	--	--
MW-3	9/23/2003	(NS)	98.53	23.55	--	74.98	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	10/21/2003		98.53	23.52	--	75.01	**3,190**	--	--	**19.8**	2.92	31.2	16.3	<1.00	--	--	--	--
MW-3	6/29/2004	(NS)	98.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	11/15/2004	(NP)	98.53	23.95	--	74.58	**3,170**	--	--	**15.8**	2.36	20.9	11.1	2.36	--	--	--	--
MW-3	4/14/2005	(NP)	98.53	23.90	--	74.63	**3,340**	--	--	**17.1**	5.21	14.3	11.2	<2.00	--	--	--	--
MW-3	12/18/2005	(NP)	98.53	24.42	--	74.11	**4,150**	--	--	**15.1**	2.92	20.7	15.1	<1.00	--	--	--	--
MW-3	6/11/2006	(NP)	98.53	23.48	--	75.05	**4,000**	--	--	**20.9**	3.6	30	21.3	1.11	--	--	--	--
MW-3	11/5/2006	(NP)	98.53	24.59	--	73.94	**4,970**	--	--	**16.8**	2.85	19	16.6	--	--	--	--	--
MW-3	9/25/2007	(NP)	98.53	23.84	--	74.69	**4,530**	--	--	**18.2**	2.34	17.1	13.8	--	--	--	--	--
MW-3	12/31/2007	(NP)	98.53	23.83	--	74.70	**4,490**	--	--	**16.5**	2.38	32.7	16.1	--	--	--	--	--
MW-3	5/29/2008	(NP)	98.53	23.90	--	74.63	**5,350**	--	--	**16.5**	1.83	14.4	15	--	--	--	--	--
MW-3	10/28/2008	(NP)	98.53	24.97	--	73.56	**3,250**	--	--	**14.4**	1.86	13.8	10.3	--	--	--	--	--
MW-3	6/22/2009	(NP)	98.53	25.29	--	73.24	**2,000**	--	--	**15**	1.7	35	7.3	--	--	--	<2.00	<2.00
MW-3	12/15/2009	(NP)	98.53	25.14	--	73.39	**2,100**	--	--	**13**	1.5	28	7.3	--	--	--	7.7	<2.00
MW-3	5/24/2010	(NP)	266.00	24.10	--	241.90	**2,300**	--	--	**29**	6.2	28	19	--	--	--	--	--
MW-3	10/12/2010	(NP)	266.00	24.40	0.0	241.60	**2,380**	--	--	**31.1**	<1.0	16.6	4.7	<1.0	--	--	<10.0	--
MW-3	5/10/2011	(NP)	266.00	22.55	0.0	243.45	**3,280**	**820**	**840**	**33.6**	1.2	57.5	7.9	2.4	--	--	<10.0	--
MW-3	11/29/2011	(NP)	266.00	24.19	0.0	241.81	**3,130**	<76	<380	**30.4**	<1.0	21.0	6.9	--	--	--	<10.0	--
MW-3	6/1/2012	(NP)	266.00	22.94	0.0	243.06	**2,360**	**512**	446	**29.0**	<1.0	35.9	7.6	2.6	--	--	<10.0	<10.0
MW-3	11/29/2012	(NP)	266.00	22.90	0.0	243.10	**2,320**	**670**	500	3.2	1.9	40.7	10.6	1.8	--	--	4.1	<3.0
MW-3	5/9/2013	(NP)	266.00	22.72	0.0	243.28	**2,850**	**610**	<420	**32.8**	4.2	98.3	13.9	2.7	--	--	<10.0	<10.0
MW-3	11/19/2013	(NP)	266.00	24.30	0.0	241.70	380	**620**	340	3.5(J)	<0.70	3.4(J)	1.3(J)	0.68(J)	--	--	3.2	0.47(J)
MW-3	5/13/2014	(NP)	266.00	22.95	0.0	243.05	**1,100**	**710**	**700**	**8.4**	0.94(J)	17	3.7	1.1	--	--	<4.7	<4.7
MW-3	5/7/2015	(NP)	266.00	23.52	0.0	242.48	**1,800**	430	440	**9.9**	<0.50	10	2.1	1.2	--	--	<4.7	<4.7
MW-3	3/2/2016	(NP)	266.00	22.12	0.0	243.88	<50	<48	150(J)	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-3	6/6/2016	(NP)	266.00	23.76	0.0	242.24	500	110	180(J)	1.4	<0.50	0.78(J)	<0.50	<0.50	--	--	--	--
MW-3	9/12/2016	(NP)	266.00	25.08	0.0	240.92	**1,200**	100	<67	4.3	<0.50	2.1	<0.50	<0.50	--	--	--	--
MW-3	12/12/2016	(NP)	266.00	22.42	0.0	243.58	53(J)	210	140(J)	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-3	2/22/2017	(NP)	266.00	20.02	0.0	245.98	245	254	<165	<0.331	<0.412	<0.384	<1.06	<0.367	--	--	--	--
MW-3	8/29/2017	(NP)	266.00	24.09	0.0	241.91	**1,310**	383	238(J)	3.87	0.434(J)	3.82	1.78(J)	<0.367	--	--	--	--
MW-4	5/11/1993		100.26	23.03	--	77.23	**31,000**	--	--	**8,700**	**4,000**	57	**3,200**	--	--	--	--	--
MW-4	3/4/1994		100.26	26.83	4.00	76.63	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	7/6/1994		100.26	25.63	1.43	75.77	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	10/7/1994		100.26	26.07	1.63	75.49	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	12/28/1994		100.26	25.85	1.43	75.55	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	3/13/1995		100.26	25.59	1.88	76.17	--	--	--	--	--	--	--	--	--	--	--	--

Table 1
Groundwater Gauging Data and Select Analytical Results
WA-11060

4580 Fauntleroy Way Sw, Seattle, WA 98126

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

Well	Date	Notes	TOC	DTW	NAPL	GWE	GRO	DRO	HO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L							**800/1,000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
MW-4	6/30/1995		100.26	24.64	1.11	76.51	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	9/6/1995		100.26	24.78	1.05	76.32	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	12/8/1995		100.26	24.94	1.05	76.16	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	3/11/1996		100.26	24.68	2.38	77.48	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	6/18/1996		100.26	24.04	2.11	77.91	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	9/9/1996		100.26	24.08	1.85	77.66	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	12/11/1996		100.26	23.07	0.38	77.49	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	3/17/1999		100.26	--	--	--	**100,000**	--	--	**12,000**	**17,000**	**1,800**	**10,000**	**<50**	--	--	--	--
MW-4	9/28/1999		100.26	--	--	--	**97,000**	--	--	**27,000**	**65,000**	**18,000**	**100,000**	**<1,000**	--	--	--	--
MW-4	1/19/2000		100.26	--	--	--	**100,000**	--	--	**22,000**	**18,000**	**2,400**	**15,000**	<5	--	--	--	--
MW-4	3/24/2000		100.26	--	--	--	**100,000**	--	--	**13,000**	**18,000**	**2,200**	**13,000**	<5	--	--	--	--
MW-4	7/2/2000		100.26	--	--	--	**92,000**	--	--	**13,000**	**17,000**	**1,800**	**10,000**	**220**	--	--	--	--
MW-4	9/14/2000		100.26	--	--	--	**160,000**	--	--	**22,000**	**27,000**	**6,900**	**23,000**	<5	--	--	--	--
MW-4	9/14/2000	(Dup)	100.26	--	--	--	**160,000**	--	--	**16,000**	**22,000**	<500	**7,800**	**<2,000**	--	--	--	--
MW-4	9/22/2001		100.26	26.60	3.27	76.28	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	12/9/2001		100.26	25.50	2.37	76.66	**110,000**	--	--	**12,000**	**10,000**	**1,900**	**8,800**	**<40**	--	--	--	--
MW-4	3/20/2002		100.26	26.50	3.73	76.74	**100,000**	--	--	**13,000**	**19,000**	**2,500**	**13,000**	**360**	--	--	--	--
MW-4	6/11/2002		100.26	24.25	1.10	76.89	**95,000**	--	--	**13,000**	**17,000**	**2,300**	**12,000**	**<400**	--	--	--	--
MW-4	12/21/2002	(NS)	100.26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	3/19/2003	(NS)	100.26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	6/18/2003	(NS)	100.26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	9/23/2003		100.26	22.31	0.07	78.01	**75,900**	--	--	**7,140**	**8,980**	**1,270**	**8,820**	**<50.0**	--	--	--	--
MW-4	10/21/2003		100.26	21.79	--	78.47	**44,700**	--	--	**3,190**	**6,370**	**779**	**6,160**	**<500**	--	--	--	--
MW-4	6/29/2004	(NP)	100.26	22.88	0.0	77.38	**378,000**	--	--	**11,200**	**16,300**	**3,550**	**22,600**	**2,500**	--	--	--	--
MW-4	11/15/2004	(NAPL)	100.26	23.07	1.45	78.35	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	4/14/2005	(NAPL)	100.26	23.82	1.89	77.95	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	12/18/2005	(NP)	100.26	23.43	0.08	76.89	**214,000**	--	--	**9,430**	**12,800**	**2,000**	**13,500**	**<100**	--	--	--	--
MW-4	6/11/2006	(NP)	100.26	21.87	0.01	78.40	**117,000**	--	--	**13,000**	**18,200**	**2,300**	**14,000**	**<1,000**	--	--	--	--
MW-4	11/5/2006	(NP)	100.26	22.92	0.01	77.35	**120,000**	--	--	**6,950**	**10,500**	**2,070**	**13,500**	--	--	--	--	--
MW-4	9/25/2007	(NAPL)	100.26	22.15	0.02	78.13	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	12/31/2007	(NS)	100.26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	5/29/2008	(NM)	100.26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	10/28/2008	(DRY)	100.26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	6/22/2009	(NAPL)	100.26	24.21	0.04	76.08	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	12/15/2009	(NAPL)	100.26	24.04	0.28	76.44	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	5/24/2010	(NM)	267.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	5/10/2011	(NM)	267.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 1
Groundwater Gauging Data and Select Analytical Results
WA-11060

4580 Fauntleroy Way Sw, Seattle, WA 98126

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

Well	Date	Notes	TOC	DTW	NAPL	GWE	GRO	DRO	HO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L							**800/1,000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
MW-4	11/29/2011	(NM)	267.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	6/1/2012	(NM)	267.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	11/29/2012	(NAPL)	267.78	24.00	0.10	243.86	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	5/9/2013	(NAPL)	267.78	26.48	3.83	244.36	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	11/19/2013	(NAPL)	267.78	26.61	1.81	242.62	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	5/13/2014	(NAPL)	267.78	25.80	2.50	243.98	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	5/7/2015	(NAPL)	267.78	26.50	2.95	243.64	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	3/2/2016	(NAPL)	267.78	24.67	1.40	244.23	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	6/6/2016	(NAPL)	267.78	25.86	1.53	243.14	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	9/12/2016	(NAPL)	267.78	26.51	1.11	242.16	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	12/12/2016	(NP)	267.78	23.27	0.0	244.51	**25,000**	**2,100**	380	**120**	37	57	1,000	<2.5	--	--	--	--
MW-4	2/22/2017	(NAPL)	267.78	22.63	0.07	245.21	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	8/29/2017	(NS)	267.78	26.50	1.68	242.62	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	5/11/1993		100.88	22.97	--	77.91	**1,800**	--	--	**130**	25	23	22	--	--	--	--	--
MW-5	3/4/1994		100.88	24.35	--	76.53	710	420	--	**26**	6	11	8	--	--	--	**27**	<3
MW-5	7/6/1994		100.88	24.72	--	76.16	400	<250	--	**11**	3	1	4	--	--	--	--	--
MW-5	10/7/1994		100.88	25.02	--	75.86	510	--	--	**13**	4	2	4	--	--	--	--	--
MW-5	12/28/1994		100.88	24.98	--	75.90	**1,300**	--	--	**46**	13	20	22	--	--	--	--	--
MW-5	3/13/1995		100.88	24.41	--	76.47	**2,800**	--	--	**34**	8	40	28	--	--	--	--	--
MW-5	6/30/1995		100.88	24.06	--	76.82	**1,100**	--	--	**50**	11	12	15	--	--	--	--	--
MW-5	9/6/1995		100.88	24.27	--	76.61	**1,100**	--	--	**42**	14	30	18	--	--	--	--	--
MW-5	12/8/1995		100.88	24.49	--	76.39	**1,700**	--	--	**32**	7	42	62	--	--	--	--	--
MW-5	3/11/1996		100.88	23.33	--	77.55	**8,100**	--	--	**85**	9	210	140	--	--	--	--	--
MW-5	6/18/1996		100.88	22.91	--	77.97	**2,700**	--	--	**100**	17	88	25	--	--	--	--	--
MW-5	9/9/1996		100.88	23.07	--	77.81	**2,200**	--	--	**180**	29	100	27	<1.0	--	--	--	--
MW-5	12/11/1996		100.88	23.13	--	77.75	**4,900**	--	--	**110**	18	96	250	12	--	--	--	--
MW-5	3/13/1997		100.88	22.28	--	78.60	**5,500**	--	--	**190**	35	190	73	**<50**	--	--	--	--
MW-5	6/5/1997		100.88	21.78	--	79.10	**4,100**	--	--	**290**	42	200	37	**<100**	--	--	--	--
MW-5	9/5/1997		100.88	21.92	--	78.96	**3,100**	--	--	**420**	83	190	730	**<50**	--	--	--	--
MW-5	4/2/1998		100.88	21.35	--	79.53	**5,400**	--	--	**470**	89	340	83	**<50**	--	--	--	--
MW-5	6/8/1998		100.88	21.48	--	79.40	**4,200**	--	--	**360**	110	220	66	**71**	--	--	--	--
MW-5	9/17/1998		100.88	22.12	--	78.76	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	12/9/1998		100.88	22.33	--	78.55	**4,900**	--	--	**170**	41	120	120	<1.0	--	--	--	--
MW-5	3/17/1999		100.88	20.93	--	79.95	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	6/26/1999		100.88	21.02	--	79.86	**3,300**	--	--	**180**	82	210	24	8	--	--	--	--
MW-5	9/28/1999		100.88	21.76	--	79.12	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	1/19/2000		100.88	21.65	--	79.23	**6,500**	--	--	**480**	350	370	87	<0.5	--	--	--	--

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WA-11060

4580 Fauntleroy Way Sw, Seattle, WA 98126

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Well	Date	Notes	TOC	DTW	NAPL	GWE	GRO	DRO	HO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L							**800/1,000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
MW-5	3/24/2000		100.88	21.48	--	79.40	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	7/2/2000		100.88	22.01	--	78.87	**6,100**	--	--	**390**	110	290	54	20	--	--	--	--
MW-5	9/14/2000		100.88	22.59	--	78.29	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	12/14/2000		100.88	22.95	--	77.93	**4,000**	--	--	**26**	<10	<10	<30	**<40**	--	--	--	--
MW-5	9/22/2001		100.88	23.86	--	77.02	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	12/9/2001		100.88	23.90	--	76.98	**12,000**	--	--	**51**	<10	120	140	<10	--	--	--	--
MW-5	3/20/2002		100.88	23.13	--	77.75	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	6/11/2002		100.88	23.09	--	77.79	**5,700**	--	--	**94**	21	110	24	<20	--	--	--	--
MW-5	12/21/2002		100.88	24.65	--	76.23	**1,300**	--	--	**6.32**	2.95	6.59	11.1	5.88	--	--	--	--
MW-5	3/19/2003		100.88	24.68	--	76.20	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	6/18/2003		100.88	24.37	--	76.51	**1,950**	--	--	**7.18**	1.95	12	24.7	6	--	--	--	--
MW-5	9/23/2003		100.88	24.88	--	76.00	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	10/21/2003		100.88	24.99	--	75.89	322	--	--	1.18	2.19	0.732	3.38	<1.00	--	--	--	--
MW-5	6/29/2004	(NP)	100.88	24.22	--	76.66	**1,180**	--	--	**5.4**	3.24	4.79	14.1	6.95	--	--	--	--
MW-5	11/15/2004	(NP)	100.88	24.97	--	75.91	399	--	--	0.74	<0.500	<0.500	<1.00	<2.00	--	--	--	--
MW-5	4/14/2005	(NP)	100.88	25.08	--	75.80	**2,900**	--	--	**14.3**	13.4	33.9	40	<2.00	--	--	--	--
MW-5	12/18/2005	(NP)	100.88	25.47	--	75.41	661	--	--	2.49	2.43	3.58	5.11	<1.00	--	--	--	--
MW-5	6/11/2006	(NP)	100.88	24.43	--	76.45	**2,830**	--	--	**6.08**	1.05	2.78	3.1	<1.00	--	--	--	--
MW-5	11/5/2006	(NP)	100.88	25.55	--	75.33	723	--	--	1.41	0.78	1.29	<3.00	--	--	--	--	--
MW-5	9/25/2007	(NP)	100.88	24.95	--	75.93	712	--	--	1.86	0.53	0.77	<3.00	--	--	--	--	--
MW-5	12/31/2007	(NP)	100.88	25.16	--	75.72	**7,190**	--	--	**9.4**	11.3	38.1	75.7	--	--	--	--	--
MW-5	5/29/2008	(NP)	100.88	25.01	--	75.87	**2,740**	--	--	**7.47**	9.12	15.7	23.7	--	--	--	--	--
MW-5	10/28/2008	(NP)	100.88	25.89	--	74.99	516	--	--	2.01	1.46	<0.500	3.48	--	--	--	--	--
MW-5	6/22/2009	(NP)	100.88	26.95	--	73.93	**4,800**	--	--	**36**	24	87	49.9	--	--	--	**23**	--
MW-5	12/15/2009	(NP)	100.88	26.57	--	74.31	**2,300**	--	--	**24**	19	29	23	--	--	--	12	11
MW-5	5/24/2010	(NP)	100.88	25.55	--	75.33	**4,200**	--	--	**59**	8.4	96	41	--	--	--	--	--
MW-5	10/12/2010	(NP)	268.46	25.74	0.0	242.72	**2,320**	--	--	**31.4**	2.6	12.7	4.8	<1.0	--	--	<10.0	--
MW-5	10/12/2010	(Dup)(NP)	268.46	25.74	0.0	242.72	**2,260**	--	--	**31.6**	2.6	12.6	4.8	<1.0	--	--	--	--
MW-5	5/10/2011	(NP)	268.46	24.61	0.0	243.85	**4,710**	470	<400	**12.4**	4.1	39.3	25.5	<1.0	--	--	<10.0	--
MW-5	11/29/2011	(NP)	268.46	25.55	0.0	242.91	**2,210**	95	<380	**12.3**	2.2	6.4	3.1	--	--	--	10.5	--
MW-5	6/1/2012	(NP)	268.46	24.60	0.0	243.86	**1,620**	**1,040**	<392	**13.3**	3.0	9.6	10.7	<1.0	--	--	<10.0	<10.0
MW-5	6/1/2012	(Dup)(NP)	268.46	24.60	0.0	243.86	**1,520**	**1,030**	<388	**12.8**	2.8	8.8	10	<1.0	--	--	<10.0	<10.0
MW-5	11/29/2012	(NP)	268.46	25.31	0.0	243.15	**4,160**	**1,100**	<440	**18.0**	8.0	61.7	28.2	<1.0	--	--	**42.5**	<3.0
MW-5	5/9/2013	(NP)	268.46	24.52	0.0	243.94	**3,470**	<400	<400	**19.0**	6.7	48.3	18.5	<1.0	--	--	<10.0	<10.0
MW-5	11/19/2013	(NP)	268.46	26.35	0.0	242.11	**1,800**	240	**660**	**24**	5.7	17	6.3	<0.50	--	--	6.7	1.3
MW-5	5/13/2014	(NP)	268.46	25.18	0.0	243.28	**4,400**	440	370	**17**	7.5	69	23	<0.50	--	--	**16.2**	9.2(J)
MW-5	5/13/2014	(Dup)(NP)	268.46	25.18	0.0	243.28	**2,500**	--	--	**22**	2.5(J)	47	18	2.6(J)	--	--	--	--

Table 1
Groundwater Gauging Data and Select Analytical Results
WA-11060

4580 Fauntleroy Way Sw, Seattle, WA 98126

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

Well	Date	Notes	TOC	DTW	NAPL	GWE	GRO	DRO	HO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L							**800/1,000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
MW-5	5/7/2015	(NP)	268.46	25.22	0.0	243.24	**2,800**	240	260	**11**	4.8	32	12	<0.50	--	--	**18.4**	5.2(J)
MW-5	3/2/2016	(NP)	268.46	25.55	0.0	242.91	**4,100**	320	**530**	4.5	2.8	24	13	<0.50	--	--	--	--
MW-5	6/6/2016	(NP)	268.46	25.74	0.0	242.72	**5,300**	310	**620**	**6.9**	4.4	23	15	<0.50	--	--	--	--
MW-5	9/12/2016	(NS, IW)	268.46	27.43	0.0	241.03	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	12/12/2016	(NP)	268.46	25.36	0.0	243.10	**4,300**	**17,000**	**<540**	1.7	1.8	9.0	4.5	<0.50	--	--	--	--
MW-5	2/22/2017	(NP)	268.46	25.00	0.0	243.46	**3,440**	**9,890**	204(J)	0.572(J)	<0.412	1.39	1.10(J)	<0.367	--	--	--	--
MW-5	2/22/2017	(Dup)(NP)	268.46	25.00	0.0	243.46	**3,570**	**7,910**	194(J)	0.719(J)	<0.412	1.73	1.18(J)	<0.367	--	--	--	--
MW-5	8/29/2017	(NP)	268.46	26.20	0.0	242.26	**1,810**	**7,040**	432	**7.48**	1.60	6.01	11.1	<0.367	--	--	--	--
MW-6	9/5/1997		98.62	21.20	--	77.42	930	--	--	<0.5	19	6	15	**32**	--	--	--	--
MW-6	4/2/1998		98.62	19.70	--	78.92	600	--	--	<0.5	10	3	11	6	--	--	--	--
MW-6	6/8/1998		98.62	20.58	--	78.04	430	--	--	<0.5	6	2	5	10	--	--	--	--
MW-6	9/17/1998		98.62	21.87	--	76.75	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	12/9/1998		98.62	21.20	--	77.42	260	--	--	<1.0	<1.0	1	3	2	--	--	--	--
MW-6	3/17/1999		98.62	18.49	--	80.13	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	6/26/1999		98.62	18.49	--	80.13	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	9/28/1999		98.62	21.40	--	77.22	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	1/19/2000		98.62	20.39	--	78.23	330	--	--	<0.5	<0.5	6	10	7	--	--	--	--
MW-6	3/24/2000		98.62	19.63	--	78.99	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	9/14/2000		98.62	21.92	--	76.70	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	12/14/2000		98.62	22.51	--	76.11	1,000	--	--	**<10**	<10	<10	<30	**<40**	--	--	--	--
MW-6	9/22/2001		98.62	23.31	--	75.31	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	12/9/2001		98.62	22.24	--	76.38	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	3/20/2002		98.62	21.44	--	77.18	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	6/11/2002		98.62	21.90	--	76.72	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	12/21/2002	(NS)	98.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	3/19/2003	(NS)	98.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	6/18/2003	(NS)	98.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	9/23/2003	(NS)	98.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	10/21/2003	(P)	98.62	22.69	--	75.93	254	--	--	**10**	3.66	0.898	5.03	<1.00	--	--	--	--
MW-6	6/29/2004	(NP)	98.62	22.88	--	75.74	540	--	--	**6.8**	1.73	<0.500	5.65	6.35	--	--	--	--
MW-6	11/15/2004	(NP)	98.62	24.12	--	74.50	370	--	--	**43.5**	14.5	0.58	10.4	<2.00	--	--	--	--
MW-6	4/14/2005	(NP)	98.62	23.75	--	74.87	443	--	--	**6.39**	0.95	<0.500	3.75	<2.00	--	--	--	--
MW-6	12/18/2005	(NP)	98.62	24.79	--	73.83	694	--	--	<0.500	<0.500	<0.500	3.01	<1.00	--	--	--	--
MW-6	6/11/2006	(NP)	98.62	23.09	--	75.53	601	--	--	<0.500	<0.500	<0.500	<3.00	<1.00	--	--	--	--
MW-6	11/5/2006	(NP)	98.62	25.80	--	72.82	444	--	--	<0.500	<0.500	<0.500	<3.00	--	--	--	--	--
MW-6	9/25/2007	(NP)	98.62	24.13	--	74.49	321	--	--	<0.500	<0.500	<0.500	<3.00	--	--	--	--	--
MW-6	12/31/2007	(NP)	98.62	23.59	--	75.03	168	--	--	<0.500	<0.500	<0.500	<3.00	--	--	--	--	--

Table 1
Groundwater Gauging Data and Select Analytical Results
WA-11060

4580 Fauntleroy Way Sw, Seattle, WA 98126

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

Well	Date	Notes	TOC	DTW	NAPL	GWE	GRO	DRO	HO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L							**800/1,000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
MW-6	5/29/2008	(NP)	98.62	24.21	--	74.41	**1,620**	--	--	<0.500	<0.500	<0.500	<3.00	--	--	--	--	--
MW-6	10/28/2008	(NP)	98.62	25.47	--	73.15	481	--	--	<0.500	<0.500	<0.500	<3.00	--	--	--	--	--
MW-6	6/22/2009	(NP)	98.62	25.32	--	73.30	<50.0	--	--	<1.00	<1.00	<1.00	<3.00	--	--	--	<2.00	<2.00
MW-6	12/15/2009	(NP)	98.62	23.33	--	75.29	190	--	--	<1.00	<1.00	<1.00	<2.00	--	--	--	<2.00	<2.00
MW-6	5/24/2010	(NP)	266.06	22.90	--	243.16	280	--	--	**8.1**	<2.5	<2.5	<5.0	--	--	--	--	--
MW-6	10/12/2010	(NP)	266.06	23.06	0.0	243.00	<50.0	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	--
MW-6	5/10/2011	(NP)	266.06	22.01	0.0	244.05	96.0	180	<390	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	--
MW-6	11/29/2011	(NP)	266.06	23.42	0.0	242.64	<50.0	<78	<390	<1.0	<1.0	<1.0	<3.0	--	--	--	<10.0	--
MW-6	11/29/2011	(Dup)(NP)	266.06	23.42	0.0	242.64	<50.0	<77	<380	<1.0	<1.0	<1.0	<3.0	--	--	--	<10.0	--
MW-6	6/1/2012	(NP)	266.06	22.75	0.0	243.31	124	<76.9	<385	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-6	11/29/2012	(NM)	266.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	5/9/2013	(NP)	266.06	22.82	0.0	243.24	216	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-6	11/19/2013	(NP)	266.06	24.00	0.0	242.06	130(J)	31(J)	<71	<0.50	<0.70	<0.80	<0.80	<0.50	--	--	0.97(J)	0.12(J)
MW-6	5/13/2014	(NP)	266.06	22.76	0.0	243.30	120(J)	80(J)	180(J)	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	<4.7	<4.7
MW-6	5/7/2015	(NP)	266.06	23.71	0.0	242.35	<50	<28	<65	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	<4.7	<4.7
MW-6	6/6/2016	(NP)	266.06	23.82	0.0	242.24	<50	<46	<100	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-6	9/12/2016	(NP)	266.06	25.22	0.0	240.84	<50	140	280	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-6	12/12/2016	(NP)	266.06	22.66	0.0	243.40	<50	<47	<100	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-6	2/22/2017	(NP)	266.06	21.24	0.0	244.82	33.5(J)	<82.5	<165	<0.331	<0.412	<0.384	<1.06	<0.367	--	--	--	--
MW-6	8/29/2017	(NP)	266.06	24.16	0.0	241.90	160	<139	183(J)	<0.331	<0.412	<0.384	<1.06	<0.367	--	--	--	--
MW-7	4/2/1998		97.32	18.79	--	78.53	**13,100**	--	--	<5	35	480	**1,100**	**<50**	--	--	--	--
MW-7	6/8/1998		97.32	19.60	--	77.72	**12,000**	--	--	<5.0	40	420	810	**63**	--	--	--	--
MW-7	9/17/1998		97.32	20.82	--	76.50	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	12/9/1998		97.32	20.21	--	77.11	**9,600**	--	--	<5.0	26	360	610	11	--	--	--	--
MW-7	3/17/1999		97.32	17.61	--	79.71	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	6/26/1999		97.32	19.29	--	78.03	**8,300**	--	--	**11**	24	410	600	<5.0	--	--	--	--
MW-7	12/14/2000		97.32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	12/9/2001		97.32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	3/20/2002		97.32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	6/11/2002		97.32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	6/18/2003	(ABANDONED)	97.32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	4/2/1998		98.49	19.99	--	78.50	<100	--	--	<0.5	1	<0.5	<1.5	<5	--	--	--	--
MW-8	6/8/1998		98.49	20.39	--	78.10	<100	--	--	<0.5	1	2	<1.5	<5.0	--	--	--	--
MW-8	9/17/1998		98.49	21.21	--	77.28	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	12/9/1998		98.49	21.03	--	77.46	<500	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	--	--	--	--
MW-8	3/17/1999		98.49	19.03	--	79.46	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	6/26/1999		98.49	20.02	--	78.47	<500	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	--	--	--	--

Table 1
Groundwater Gauging Data and Select Analytical Results
WA-11060

4580 Fauntleroy Way Sw, Seattle, WA 98126

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

Well	Date	Notes	TOC	DTW	NAPL	GWE	GRO	DRO	HO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L							**800/1,000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
MW-8	12/14/2000		98.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	12/9/2001		98.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	3/20/2002		98.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	6/11/2002		98.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	6/18/2003	(ABANDONED)	98.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	10/12/2010	(NP)	263.35	23.89	0.0	239.46	<50.0	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	--
MW-9	5/10/2011	(NP)	263.35	20.70	0.0	242.65	<50.0	160	<420	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	--
MW-9	11/29/2011	(NP)	263.35	22.64	0.0	240.71	<50.0	<76	<380	<1.0	<1.0	<1.0	<3.0	--	--	--	<10.0	--
MW-9	6/1/2012	(NM)	263.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	11/29/2012	(NM)	263.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	5/9/2013	(NP)	263.35	21.09	0.0	240.55	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-9	11/19/2013	(NP)	263.35	22.80	0.0	--	<50	49(J)	<75	<0.50	<0.70	<0.80	<0.80	<0.50	--	--	1.0	0.090(J)
MW-9	5/13/2014	(NP)	263.35	21.39	0.0	241.96	<50	<29	<67	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	<4.7	<4.7
MW-9	5/7/2015	(NP)	263.35	22.04	0.0	241.31	<50	28(J)	<65	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	<4.7	<4.7
MW-9	3/2/2016	(NS)	263.35	22.29	0.0	241.06	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	6/6/2016	(NS)	263.35	22.01	0.0	241.34	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	9/12/2016	(NP)	263.35	23.43	0.0	239.92	<50	190	170(J)	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-9	2/22/2017	(NS)	263.35	21.71	0.0	241.64	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	8/29/2017	(NP)	263.35	22.47	0.0	240.88	52.9(J)	115(J)	101(J)	<0.331	<0.412	<0.384	<1.06	<0.367	--	--	--	--
MW-10	6/1/2012	(NP)	268.30	24.20	0.0	244.10	<50.0	<76.9	<385	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-10	11/29/2012	(NP)	268.30	25.00	0.0	243.30	<100	<420	<420	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	**20.4**	<3.0
MW-10	11/29/2012	(Dup)(NP)	268.30	25.00	0.0	243.30	146	<470	<470	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	**22.6**	<3.0
MW-10	5/9/2013	(NP)	268.30	24.25	0.0	244.05	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	<10.0	<10.0
MW-10	11/19/2013	(NP)	268.30	25.80	0.0	242.50	66(J)	<34	<78	<0.50	<0.70	<0.80	<0.80	<0.50	--	--	12.8	<0.085
MW-10	5/13/2014	(NP)	268.30	24.78	0.0	243.52	<50	<28	<66	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	<4.7	<4.7
MW-10	5/7/2015	(NP)	268.30	24.84	0.0	243.46	150(J)	75(J)	150(J)	<0.50	<0.50	0.81(J)	7.1	<0.50	--	--	6.3(J)	<4.7
MW-10	9/12/2016	(NP)	268.30	26.52	0.0	241.78	130(J)	<29	<68	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-10	8/29/2017	(NP)	268.30	25.93	0.0	242.37	<31.6	78.2(J)	126(J)	<0.331	<0.412	<0.384	<1.06	<0.367	--	--	--	--
VE-1	4/2/1998		--	--	--	--	**60,500**	--	--	**3,900**	**2,300**	**820**	**4,500**	**<2,500**	--	--	--	--
VE-1	9/17/1998		--	--	--	--	**240,000**	--	--	**2,700**	**2,000**	**1,400**	**7,700**	**<100**	--	--	--	--
VE-1	12/9/1998		--	--	--	--	**73,000**	--	--	**2,200**	**1,400**	**770**	**3,700**	**<25**	--	--	--	--
VE-1	3/17/1999		--	--	--	--	**42,000**	--	--	**4,000**	**2,400**	**790**	**4,100**	**<25**	--	--	--	--
VE-1	6/26/1999		--	--	--	--	**42,000**	--	--	**3,800**	**2,600**	670	**3,500**	**<100**	--	--	--	--
VE-1	9/28/1999		--	--	--	--	**25,000**	--	--	**3,400**	**2,000**	630	**3,000**	**<25**	--	--	--	--
VE-1	3/24/2000		--	--	--	--	**31,000**	--	--	**3,200**	610	27	**3,600**	<5	--	--	--	--
VE-1	7/2/2000		--	--	--	--	**27,000**	--	--	**3,200**	**1,900**	620	**3,000**	**130**	--	--	--	--

Table 1
Groundwater Gauging Data and Select Analytical Results
WA-11060

4580 Fauntleroy Way Sw, Seattle, WA 98126

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

Well	Date	Notes	TOC	DTW	NAPL	GWE	GRO	DRO	HO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Dissolved Lead
Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L							**800/1,000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	**15**
VE-1	9/14/2000		--	--	--	--	**29,000**	--	--	**3,200**	**2,200**	**920**	**3,000**	<5	--	--	--	--
VE-1	12/14/2000		--	23.02	--	--	**28,000**	--	--	**2,400**	**1,300**	580	**2,600**	**<40**	--	--	--	--
VE-1	9/22/2001		--	24.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VE-1	12/9/2001		--	23.90	0.07	--	**24,000**	--	--	**1,300**	880	510	**2,400**	**<40**	--	--	--	--
VE-1	3/20/2002		--	23.30	0.05	--	**52,000**	--	--	**1,800**	**1,300**	560	**2,400**	**280**	--	--	--	--
VE-1	6/11/2002		--	23.25	0.11	--	**26,000**	--	--	**2,800**	**1,600**	650	**2,900**	**<80**	--	--	--	--
VE-1	12/21/2002	(P)	--	24.89	0.0	--	**25,900**	--	--	**1,630**	**1,150**	**741**	**3,660**	**<200**	--	--	--	--
VE-1	3/19/2003	(P)	--	24.71	0.0	--	**27,100**	--	--	**1,590**	**1,450**	**743**	**3,640**	**<250**	--	--	--	--
VE-1	6/18/2003	(P)	--	24.50	0.05	--	**37,000**	--	--	**2,190**	**1,710**	**929**	**5,230**	**79.8**	--	--	--	--
VE-1	9/23/2003	(P)	--	25.01	0.03	--	**28,300**	--	--	**1,620**	**1,270**	**704**	**3,500**	<20.0	--	--	--	--
VE-1	10/22/2003	(P)	--	24.98	0.17	--	**36,700**	--	--	**3,360**	**1,850**	**847**	**4,130**	**<50.0**	--	--	--	--
VE-1	6/29/2004	(NP)	--	25.12	0.0	--	**192,000**	--	--	**8,070**	**7,030**	**2,230**	**10,400**	**820**	--	--	--	--
VE-1	11/15/2004	(NP)	--	25.40	0.61	--	**99,900**	--	--	**5,680**	**6,280**	**3,430**	**17,600**	**<100**	--	--	--	--
VE-1	4/14/2005	(NP)	--	26.15	1.31	--	**39,600**	--	--	**3,120**	**3,300**	**1,210**	**5,560**	**<40.0**	--	--	--	--
VE-1	12/18/2005	(NP)	--	26.00	0.35	--	**142,000**	--	--	**6,140**	**5,850**	**1,400**	**6,750**	**<100**	--	--	--	--
VE-1	6/11/2006	(NP)	--	26.53	--	--	**68,300**	--	--	**7,200**	**8,100**	**3,900**	**25,100**	**<500**	--	--	--	--
VE-1	11/5/2006	(NP)	--	26.33	0.45	--	**60,500**	--	--	**3,780**	**4,320**	**1,190**	**6,390**	--	--	--	--	--
VE-1	9/25/2007	(NAPL)	--	25.02	0.14	--	--	--	--	--	--	--	--	--	--	--	--	--
VE-1	12/31/2007	(NS)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VE-1	5/29/2008	(NAPL)	--	25.63	0.84	--	--	--	--	--	--	--	--	--	--	--	--	--
VE-1	10/28/2008	(NAPL)	--	26.07	0.27	--	--	--	--	--	--	--	--	--	--	--	--	--
VE-1	6/22/2009	(DRY)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VE-1	12/15/2009	(NAPL)	--	26.56	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--
VE-1	5/24/2010	(NS)	268.17	26.70	0.0	241.47	--	--	--	--	--	--	--	--	--	--	--	--
VE-1	5/10/2011	(NM)	268.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VE-1	11/29/2012	(NAPL)	268.17	24.05	0.10	244.20	--	--	--	--	--	--	--	--	--	--	--	--
VE-1	5/9/2013	(NS)	268.17	24.23	0.0	243.94	--	--	--	--	--	--	--	--	--	--	--	--
VE-1	11/19/2013	(NAPL)	268.17	26.35	0.55	242.26	--	--	--	--	--	--	--	--	--	--	--	--
VE-1	5/13/2014	(NAPL)	268.17	25.20	0.40	243.29	--	--	--	--	--	--	--	--	--	--	--	--
VE-1	5/7/2015	(NAPL)	268.17	25.40	0.61	243.26	--	--	--	--	--	--	--	--	--	--	--	--
VE-1	3/2/2016	(NS)	268.17	24.99	0.0	243.18	--	--	--	--	--	--	--	--	--	--	--	--
VE-2	5/7/2015	(DRY)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VE-2	3/2/2016	(NS)	--	13.84	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--
VE-3	3/2/2016	(NS)	--	12.99	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--
VE-4	3/2/2016	(NS)	--	14.45	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--
VE-5	3/2/2016	(NS)	--	14.15	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 1
Groundwater Gauging Data and Select Analytical Results
WA-11060

4580 Fauntleroy Way Sw, Seattle, WA 98126

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

TOC = Top of casing in feet North American Vertical Datum of 1988 (NAVD 88)
DTW = Depth to water in feet below TOC
NAPL = Non-aqueous phase liquid thickness in feet
GWE = Groundwater elevation in feet NAVD 88
GRO = Total petroleum hydrocarbons - gasoline range organics
DRO = Total petroleum hydrocarbons - diesel range organics
HO = Total petroleum hydrocarbons - heavy oil range organics
MTBE = Methyl tertiary butyl ether
EDB = Ethylene dibromide
EDC = 1,2-Dichloroethane
800/1,000 = GRO MTCA Method A CUL with benzene present is 800 µg/L and without is 1,000 µg/L
NS = Not sampled
-- = Not analyzed/not applicable
IW = Insufficient volume of water in the well to collect representative sample
NP = No purge sample
< = Analytical result is less than reporting limit shown
NM = Not measured
P = Purge sample
DUP = Duplicate sample
J = estimated value – The result is greater than or equal to the Method Detection Limit (MDL) and less than the Limit of Quantitation (LOQ)
Wells were resurveyed in 2010 and are referenced to vertical datum NAVD 88 and horizontal datum NAD 83/98
If NAPL is present, the GWE is corrected according to the following formula (TOC elevation - depth to water) + (0.8 x NAPL thickness)
Data collected prior to 2010 have been provided by previous consultants and are included as historical reference only
GRO, DRO, HO analyzed by Ecology Northwest Methods; Benzene, toluene, ethylbenzene, and total xylenes (BTEX), MTBE, and EDB by 8260B; Lead by U.S. Environmental Protection Agency (EPA) 6000/7000 Series; EDC by EPA 8011

BOLD constituent detected above MTCA Cleanup Levels

Table 2
Polycyclic Aromatic Hydrocarbons Analytical Results
WA-11060

4580 Fauntleroy Way Sw, Seattle, WA 98126

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

Well ID	Date	Notes	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Total Naphthalenes	Total cPAHs
Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L			--	--	--	--	--	--	--	--	--	--	**160**	**0.1**
GMW-1	5/7/2015	(NP)	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	1.8	4.0	7.4	13.2	ND < 0.00755
MW-1	5/7/2015	(NP)	0.025 J	0.026 J	0.044 J	0.020 J	0.032 J	0.018 J	0.033 J	0.023 J	0.026 J	ND < 0.031	0.065	0.04032
MW-2	5/7/2015	(NP)	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	1.1	0.35	4.3	5.75	ND < 0.00755
MW-3	5/7/2015	(NP)	0.016 J	0.015 J	0.025 J	ND < 0.010	0.018 J	ND < 0.010	0.016 J	0.76	0.041	ND < 0.030	0.816	0.02188
MW-5	5/7/2015	(NP)	ND < 0.010	ND < 0.010	0.014 J	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	3.0	2.5	11	16.5	0.00845
MW-6	5/7/2015	(NP)	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	0.011 J	0.012 J	ND < 0.030	0.038	ND < 0.00755
MW-9	5/7/2015	(NP)	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	0.015 J	ND < 0.031	0.036	ND < 0.00755
MW-10	5/7/2015	(NP)	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	0.23	0.35	0.77	1.35	ND < 0.00755
GMW-1	3/2/2016	(NP)	0.043 J	0.029 J	0.022 J	0.031 J	0.071	0.061	0.032 J	0.079	0.17	ND < 0.030	0.264	0.04861
MW-1	3/2/2016	(NP)	ND < 0.011	ND < 0.011	ND < 0.011	ND < 0.011	ND < 0.011	ND < 0.011	ND < 0.011	0.12	0.20	0.40	0.72	ND < 0.008305
MW-2	3/2/2016	(NP)	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	1.7	0.34	4.3	6.34	ND < 0.00755
MW-3	3/2/2016	(NP)	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.030	ND < 0.025	ND < 0.00755
MW-5	3/2/2016	(NP)	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	ND < 0.010	2.7	2.8	9.9	15.4	ND < 0.00755
MW-6	3/2/2016	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	3/2/2016	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	3/2/2016	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
GMW-1	6/6/2016	(NP)	--	--	--	--	--	--	--	0.53	1.1	2.2	3.83	--
MW-1	6/6/2016	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	6/6/2016	(NP)	--	--	--	--	--	--	--	2.5	0.29	4.6	7.39	--
MW-2	6/6/2016	(NP), (DUP)	--	--	--	--	--	--	--	1.9	0.17	4.5	6.57	--
MW-3	6/6/2016	(NP)	--	--	--	--	--	--	--	0.032 J	ND <0.010	ND <0.031	0.05	--
MW-5	6/6/2016	(NP)	--	--	--	--	--	--	--	2.3	2.3	7.3	11.9	--
MW-6	6/6/2016	(NP)	--	--	--	--	--	--	--	ND <0.010	ND <0.010	ND <0.031	ND < 0.026	--
MW-9	6/6/2016	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	6/6/2016	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
GMW-1	9/12/2016	(NP)	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	1.4	2.8	6.8	11	ND < 0.00717
GMW-1	9/12/2016	(NP), (DUP)	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	1.4	2.8	7.1	11.3	ND < 0.00717
MW-1	9/12/2016	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	9/12/2016	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	9/12/2016	(NP)	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	0.19	ND < 0.0095	ND < 0.029	0.20925	ND < 0.00717
MW-5	9/12/2016	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	9/12/2016	(NP)	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.028	ND < 0.0235	ND < 0.00717
MW-9	9/12/2016	(NP)	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.028	ND < 0.0235	ND < 0.00717
MW-10	9/12/2016	(NP)	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.0095	ND < 0.029	ND < 0.024	ND < 0.00717

Table 2
Polycyclic Aromatic Hydrocarbons Analytical Results
WA-11060

4580 Fauntleroy Way Sw, Seattle, WA 98126

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

Well ID	Date	Notes	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Total Naphthalenes	Total cPAHs
Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) in µg/L			--	--	--	--	--	--	--	--	--	--	**160**	**0.1**

Notes:
-- = Not analyzed/not applicable
NP = No purge sample
ND < = Analytical result is less than reporting limit shown
NS = Not sampled for polycyclic aromatic hydrocarbons (PAHs)
DUP = Duplicate sample
J = estimated value – The result is greater than or equal to the Method Detection Limit (MDL) and less than the Limit of Quantitation (LOQ)
Carcinogenic PAHs (cPAHs) and Naphthalenes analyzed by U.S. Environmental Protection Agency (EPA) 8270C SIM
cPAHs adjusted for toxicity according to Washington State Administrative Code 173-340-708(8). If one or more adjusted cPAH constituents were reported as non-detect, half of the reporting limit was used in calculations.
Naphthalenes is a sum total of 1-methyl-naphthalene, 2-methyl-naphthalene, and naphthalene. If one or more constituents were reported as non-detect, half of the reporting limit was used in calculations.
BOLD concentration greater than the MTCA Method A cleanup level

Table 3
Air Sparge and Soil Vapor Extraction - Operational Data
WA-11060

4580 Fauntleroy Way SW, Seattle, WA 98126

Date	SVE Operation (on or off) Arrival / Departure	SVE Hour Meter (Hours)	SVE Period Operation (Hours)	SVE Percent Uptime (%)	AS Operation (on or off) Arrival / Departure	AS Hour Meter (Hours)	AS Period Operation (Hours)	AS Percent Uptime (%)	Cat Ox Inlet Temperature (°F)	Post-Dilution[1]						Effluent PID (ppmv)	Destruction Efficiency (%)	VOC Mass Removal Rate (lbs/day)	VOC Mass Removal Rate (lbs/period)	Cumulative VOC Removal (lbs)
										Presure (in. Wc)	Influent Temperature (°F)	Influent Flowrate (fpm)	Influent Flowrate (acfm)	Influent Flowrate (scfm)	Influent PID (ppmv)				
Permit Requirements		--	--	--		--	--	--	**> 625**	--	--		--	**<120**	--	**<200**	**>98% [2]**			
04/20/16	off / on	6021.5	--	--	off / off	37.8	--	--	633.0	3.0	83.0	1080.0	36.8	35.5	316.0	0.9	99.7%	3.61	--	--
04/22/16	on / on	6064.0	42.5	88.5%	off / off	37.8	0.0	0.0%	649.0	2.0	89.0	1110.0	37.9	36.0	283.7	2.1	99.3%	3.29	5.83	5.83
04/27/16	on / on	6189.6	125.6	100.0%	off / off	37.8	0.0	0.0%	626.0	3.0	88.0	840.0	28.6	27.4	367.5	6.0	98.4%	3.24	16.96	22.78
05/04/16	on / on	6354.2	164.6	100.0%	off / off	37.8	0.0	0.0%	626.0	3.0	91.0	920.0	31.4	29.8	245.5	1.4	99.4%	2.36	16.17	38.95
05/10/16	on / on	6496.4	142.2	100.0%	off / off	37.8	0.0	0.0%	647.6	3.0	99.0	760.0	25.9	24.3	211.0	1.5	99.3%	1.65	9.78	48.73
06/13/16	off / on	7131.0	634.6	77.8%	off / off	37.8	0.0	0.0%	649.4	2.0	90.0	897.0	30.6	29.1	586.0	2.5	99.6%	5.48	177.48	226.21
7/12/16[3]	on / on	--	--	--	off / off	--	--	--	--	--	--	--	--	--	--	0.0	--	--	--	--
08/24/16	on / on	7492.0	361.0	20.9%	off / off	37.8	0.0	0.0%	644.0	5.0	86.5	1650.0	56.3	54.2	288.9	0.4	99.9%	5.04	75.83	302.03
09/20/16	on / on	8141.5	649.5	100.2%	off / off	37.8	0.0	0.0%	662.0	4.0	84.0	1029.0	35.1	33.9	398.0	1.1	99.7%	4.34	117.46	419.50
10/27/16	off / on	8721.0	579.5	65.3%	off / off	37.8	0.0	0.0%	662.0	1.0	75.0	120.0	4.1	4.0	135.0	0.0	100.0%	0.17	4.18	423.68
11/16/16	off / on	8831.1	110.1	22.9%	off / off	37.8	0.0	0.0%	719.6	1.0	59.0	290.0	9.9	9.9	451.8	5.2	98.8%	1.44	6.63	430.31
12/15/16	off / on	8989.1	158.0	22.7%	off / off	37.8	0.0	0.0%	645.8	0.5	65.0	280.0	9.5	9.5	388.0	6.4	98.4%	1.18	7.79	438.10
01/31/17	on / on	10005.0	1015.9	90.1%	off / off	38.2	0.4	0.0%	662.0	1.0	62.0	480.0	16.4	16.3	159.6	2.5	98.4%	0.84	35.55	473.65
02/13/17	off/ on	10104.9	99.9	32.0%	off / off	38.2	0.0	0.0%	625.8	1.0	94.5	745.0	25.4	23.9	182.8	0.0	100.0%	1.41	5.85	479.51
03/01/17	off / on	10112.1	7.2	1.9%	off / off	38.3	0.1	0.0%	663.8	3.0	120.0	885.0	30.2	27.3	215.0	0.5	99.8%	1.89	0.57	480.07
04/26/17	on / on	11208.2	1096.1	81.6%	off / off	38.3	0.0	0.0%	645.8	5.0	78.0	1800.0	61.4	60.1	64.4	0.9	98.6%	1.25	56.87	536.94
06/06/17	off / on	11250.7	42.5	4.3%	off / off	38.4	0.1	0.0%	665.6	9.0	152.7	2290.0	78.1	67.7	198.8	3.0	98.5%	4.34	7.68	544.62
07/07/17	on / on	11967.3	716.6	96.3%	off / off	38.4	0.0	0.0%	663.8	9.0	122.4	1460.0	49.8	45.4	160.0	3.2	98.0%	2.34	69.89	614.51
08/30/17	on / on	13184.3	1217.0	93.9%	off / off	38.4	0.0	0.0%	663.8	10.0	85.0	1900.0	64.8	63.3	395.0	4.5	98.9%	8.06	408.47	1022.98
09/21/17	on / on	13708.3	524.0	99.2%	off / off	38.4	0.0	0.0%	663.8	8.0	127.5	2105.0	71.8	64.8	385.5	1.3	99.7%	8.04	175.56	1198.54
10/05/17	off/ on	13903.3	195.0	58.0%	off / off	38.4	0.0	0.0%	656.0	12.0	127.0	2502.0	85.3	77.8	402.0	2.4	99.4%	10.07	81.83	1280.37
11/02/17	on / on	14536.5	633.2	94.2%	off / off	38.4	0.0	0.0%	676.4	8.0	64.2	1882.0	64.2	64.9	230.0	0.2	99.9%	4.81	126.83	1407.20
12/27/17	on / on	15330.2	793.7	60.1%	off / off	38.5	0.0	0.0%	663.8	2.0	72.0	860.0	29.3	28.8	24.6	0.1	99.6%	0.23	7.55	1414.75

2017 Annual Operational Hours	**6,341**
2017 Average Uptime Percentage	**70.08%**
2017 Average SVE flow rate (scfm):	**45.8**

SVE = Soil Vapor Extraction
Air Sparge and Soil Vapor Extraction = Ambient air is pressurized and pumped into the subsurface to volatilize constituents for extraction by the SVE System. Vapor is extracted by vacuum and is treated by combustion before discharging to the atmosphere.
AS - Air Sparge
PSCAA Permit = Puget Sound Clean Air Agency (PSCAA) emission discharge permit #29642
< = Operation data must be less than the permit requirement
> = Operation data must be greater than the permit requirement
Period = Length of time since the previous date that operational data was collected
% = Percentage
Uptime = Calculated percentage of operation during the period. (Hours of operation per period / total hours per period)
Cat Ox = Catalytic Oxidizer, the system component that catalyzes combustion of extracted Volatile Organic Compounds (VOCs)
°F = Fahrenheit
in Wc = Inches of water column
fpm = feet per minute
acfm = Actual cubic feet per minute measured by anemometer
scfm = Standard cubic feet per minute. scfm = acfm * (Pactual / Pstandard) * (Tstandard / Tactual)
Pstandard = Standard pressure = 1 atmosphere (14.7 pounds per square inch [psi])

$$scfm = acfm \cdot \frac{(14.7\,[psi] + (influent\ pressure\ \cdot\ 0.0361\,[\frac{psi}{in.WC}]\,)}{14.7\,[psi]} \cdot \frac{68\ °\mathrm{F} + 460\ °R}{(460°R + influent\ temperature\ °\mathrm{F})}$$

Table 3
Air Sparge and Soil Vapor Extraction - Operational Data
WA-11060

4580 Fauntleroy Way SW, Seattle, WA 98126

Date	SVE Operation (on or off) Arrival / Departure	SVE Hour Meter (Hours)	SVE Period Operation (Hours)	SVE Percent Uptime (%)	AS Operation (on or off) Arrival / Departure	AS Hour Meter (Hours)	AS Period Operation (Hours)	AS Percent Uptime (%)	Cat Ox Inlet Temperature (°F)	Post-Dilution[1]						Effluent PID (ppmv)	Destruction Efficiency (%)	VOC Mass Removal Rate (lbs/day)	VOC Mass Removal Rate (lbs/period)	Cumulative VOC Removal (lbs)
										Presure (in. Wc)	Influent Temperature (°F)	Influent Flowrate (fpm)	Influent Flowrate (acfm)	Influent Flowrate (scfm)	Influent PID (ppmv)					
Permit Requirements		--	--	--		--	--	--	> 625	--	--		--	<120	--	<200	>98% [2]			

Tstandard = Standard temperature = 68 °F, as used by the National Institute of Standards and Technology (NIST)
Pactual = Influent vacuum. Units converted in the formula from in.Hg to psi.
Tactual = Influent temperature. Units converted in the formula from °F to °R (degrees Rankine)

PID = Photoionization Detector
ppmv = Parts per million volume
Destruction Efficiency = (influent VOCs - effluent VOCs) / (influent VOCs). VOCs measured by PID
Mass Removal Rate= Flowrate * time * Concentration * Molecular Weight * Molar Density of Air
VOC molecular weight = 86 lb / [lb mol]
Molar density of air = P/RT = 1 atm / (0.7302 [ft^3 * atm] / [lb mol * ºR]) / (68 + 459.67)ºR = 0.00260 lb mol / ft^3
Molar density of air based on standard pressure of 1 atm and standard temperature of 68ºF, as used by the National Institute of Standards and Technology (NIST).
P = pressure
R = gas constant
ºR = degrees Rankine
T = temperature
atm = atmosphere
lb mol = Pound per Mole
ft^3 = cubic feet

$$Mass\ Removal\ Rate = (flowrate\ [scfm] * 60\ [min]\ \ 24\ [hr]) x\ (VOCs\ [ppmv] * 10^6 x\ 86\ \left[\frac{lbs}{mol}\right] x\ .0026\ [\frac{lbmol}{ft^3}])$$

lbs = Pounds
lbs/day = Pounds per day
lbs/period = Pounds per period
Cumulative mass removed = Previous mass removed + Removal rate * Elapsed time
-- = Not collected/ not available
1 = Influent sample port is located post-dilution thus flow rate through cat ox is equal to exhaust flowrate and compliant with Puget Sound Clean Air Agency (PSCAA) permit #29664 subpart 7b.
2= Destruction Efficiency must be >97% when TPH influent is greater than 200 ppmv per PSCAA permit # 29664 subpart 5.
3=System shut down on 7/13/16 before O&M measurements were collected for the month. System restarted on 8/19/19. Effluent PID collected on 7/12/16 on system visit.
4=Post dilution flow rate is taken in a 2.5-inch pipe. Flow rate on field forms may differ from final table due to flow calculation based on a 2-inch pipe.

Table 4
Air Sparge and Soil Vapor Extraction - Analytical Data
WA-11060

4580 Fauntleroy Way SW, Seattle, WA 98126

Date	Influent Flowrate (scfm) [1]	Laboratory Analytical Influent Concentrations					Laboratory Analytical Effluent Concentrations					GRO Mass Removal		
		GRO (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Total Xylenes (ppmv)	GRO (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylenes (ppmv)	Mass Removal Rate (lbs/day)	Mass Removal Rate (lbs/period)	Cumulative Mass Removal (lbs)
Permit Requirements	**<350**	**--**	**--**	**--**	**--**	**--**	**<200**	**<200**	**<200**	**<200**	**<200**	**--**	**--**	**--**
04/20/16	36	760	0.82 J	0.93 J	0.68 J	1.8 J	< 5.0	< 0.5	< 0.8	< 0.4	< 0.7	8.7	5.6	5.6
04/22/16	36	--	--	--	--	--	--	--	--	--	--	--	--	--
04/27/16	27	--	--	--	--	--	--	--	--	--	--	--	--	--
05/04/16	30	--	--	--	--	--	--	--	--	--	--	--	--	--
05/10/16	24	590.0	< 0.5	< 0.8	< 0.4	< 0.7	< 5.0	< 0.5	< 0.8	< 0.4	< 0.7	4.6	92.3	97.8
06/13/16	29	1,100	0.93 J	< 0.8	1.0	2.1	< 5.0	< 0.5	< 0.8	< 0.4	< 0.7	10.3	350.0	447.8
08/25/16	54	560	< 0.5	< 0.8	0.77 J	1.60 J	< 5.0	< 0.5	< 0.8	< 0.4	< 0.7	9.8	713.3	1161.1
09/20/16	34	670	< 0.5	< 0.8	< 0.4	0.88 J	< 5.0	< 0.5	< 0.8	< 0.4	< 0.7	7.3	190.0	1351.1
10/27/16	4	280	< 0.5	< 0.8	0.54 J	1.80 J	< 5.0	< 0.5	< 0.8	< 0.4	< 0.7	0.4	13.3	1364.4
11/16/16	10	1,500	< 0.5	< 0.8	2.6	3.3	< 5.0	< 0.5	< 0.8	< 0.4	< 0.7	4.8	95.9	1460.3
12/15/16	9	1,400	< 0.5	< 0.8	2.3	< 0.7	< 5.0	< 0.5	< 0.8	< 0.4	< 0.7	4.3	123.8	1584.1

SVE = Soil Vapor Extraction

Air Sparge and Soil Vapor Extraction = Ambient air is pressurized and pumped into the subsurface to volatilize constituents for extraction by the SVE System. Vapor is extracted by vacuum and is treated by combustion before discharging t

AS - Air Sparge

PSCAA Permit = Puget Sound Clean Air Agency (PSCAA) emission discharge permit #29642

< = Operation data must be less than the permit requirement

> = Operation data must be greater than the permit requirement

scfm = Standard cubic feet per minute. scfm = acfm * (Pactual / Pstandard) * (Tstandard / Tactual)

Pstandard = Standard pressure = 1 atmosphere (14.7 pounds per square inch [psi])

Tstandard = Standard temperature = 68 ^{o}F, as used by the National Institute of Standards and Technology (NIST)

Pactual = Influent vacuum. Units converted in the formula from in.Hg to psi.

Tactual = Influent temperature. Units converted in the formula from ^{o}F to ^{o}R (degrees Rankine)

GRO = Total petroleum hydrocarbons - gasoline range organics GRO (C-4-C10 hydrocarbons hexane) by EPA method 25 modified

EPA = Environmetal Protection Agency

ppmv = Parts per million volume

Benzene, Toluene, Ethylbenzene and Xylenes by EPA method 18 modified

Mass Removal Rate= Flowrate * time * Concentration * Molecular Weight * Molar Density of Air

VOC molecular weight = 86 lb / [lb mol]

Molar density of air = P/RT = 1 atm / (0.7302 [ft^3 * atm] / [lb mol * ºR]) / (68 + 459.67)ºR = 0.00260 lb mol / ft^3

Molar density of air based on standard pressure of 1 atm and standard temperature of 68ºF, as used by the National Institute of Standards and Technology (NIST).

P = pressure

Table 4
Air Sparge and Soil Vapor Extraction - Analytical Data
WA-11060

4580 Fauntleroy Way SW, Seattle, WA 98126

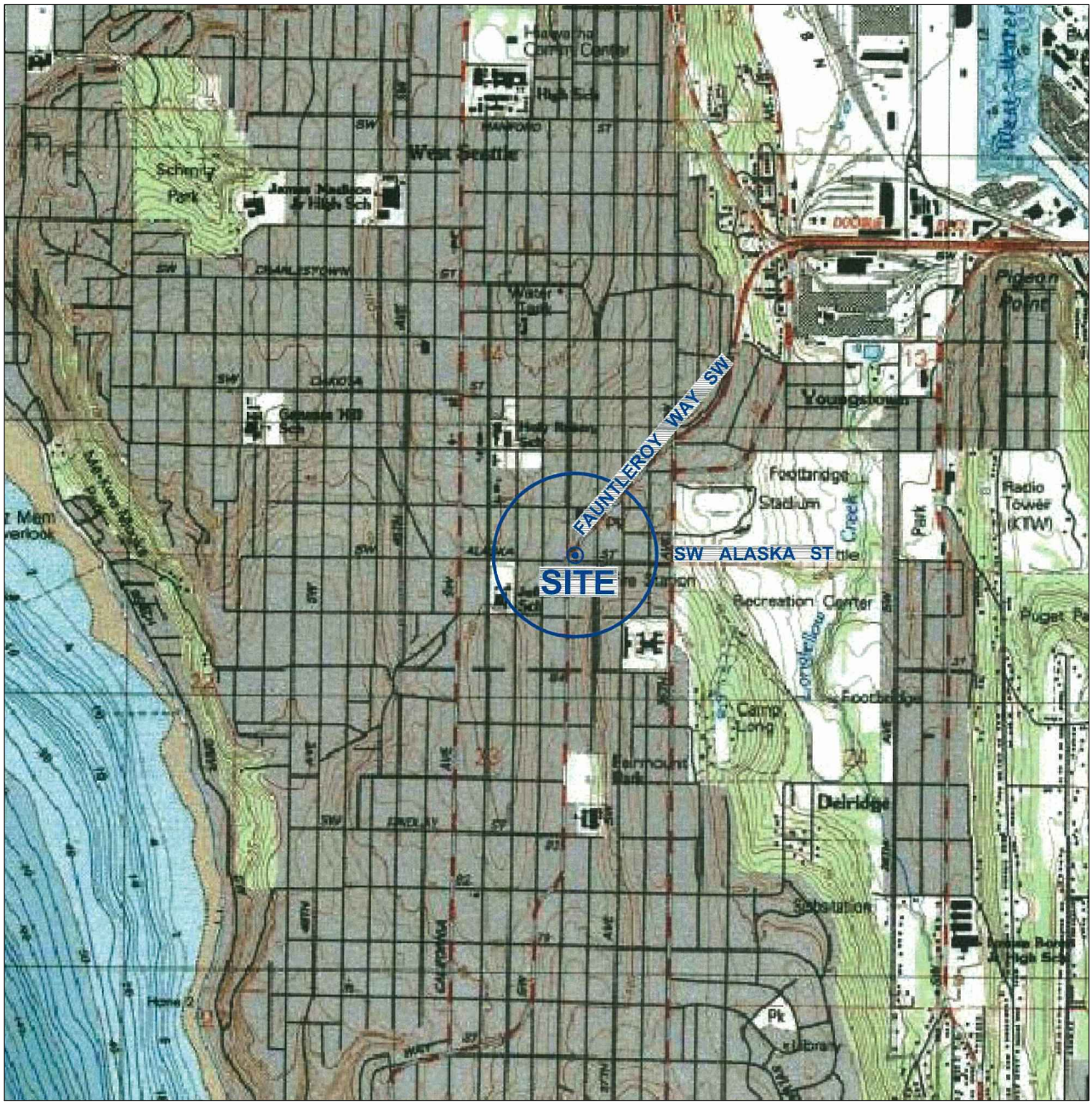
Date	Influent Flowrate (scfm) [1]	Laboratory Analytical Influent Concentrations					Laboratory Analytical Effluent Concentrations					GRO Mass Removal		
		GRO (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Total Xylenes (ppmv)	GRO (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylenes (ppmv)	Mass Removal Rate (lbs/day)	Mass Removal Rate (lbs/period)	Cumulative Mass Removal (lbs)
Permit Requirements	**<350**	**--**	**--**	**--**	**--**	**--**	**<200**	**<200**	**<200**	**<200**	**<200**	**--**	**--**	**--**

R = gas constant
ºR = degrees Rankine
T = temperature
atm = atmosphere
lb mol = Pound per Mole
ft^3 = cubic feet

$$Mass\ Removal\ Rate = (flowrate\ [scfm] * 60\ [min] x\ 24\ [hr]) x\ (VO \quad [pp \quad * 10^6 x\ 86\ \left[\frac{lbs}{mol}\right] x\ .0026\ [\frac{lbmol}{ft^3}])$$

lbs = Pounds
lbs/day = pounds per day
Period = Length of time since the previous date that operational data was collected
lbs/period = Pounds per period
Cumulative mass removed = Previous mass removed + Removal rate * Elapsed time per period
J = estimated value – The result is greater than or equal to the Method Detection Limit (MDL) and less than the Limit of Quantitation (LOQ)
-- = Not collected/ not available
< = Analytical sample results below laboratory method detection limits
1 = Influent sample port is located post-dilution thus flow rate through cat ox is equal to exhaust flowrate and compliant with Puget Sound Clean Air Agency (PSCAA) permit #29664 subpart 7c

FIGURES



REFERENCE: BASE MAP USGS 7.5X15. MIN. TOPO. QUAD.,SEATTLE SOUTH, WA, 1983.

0 2000' 4000'

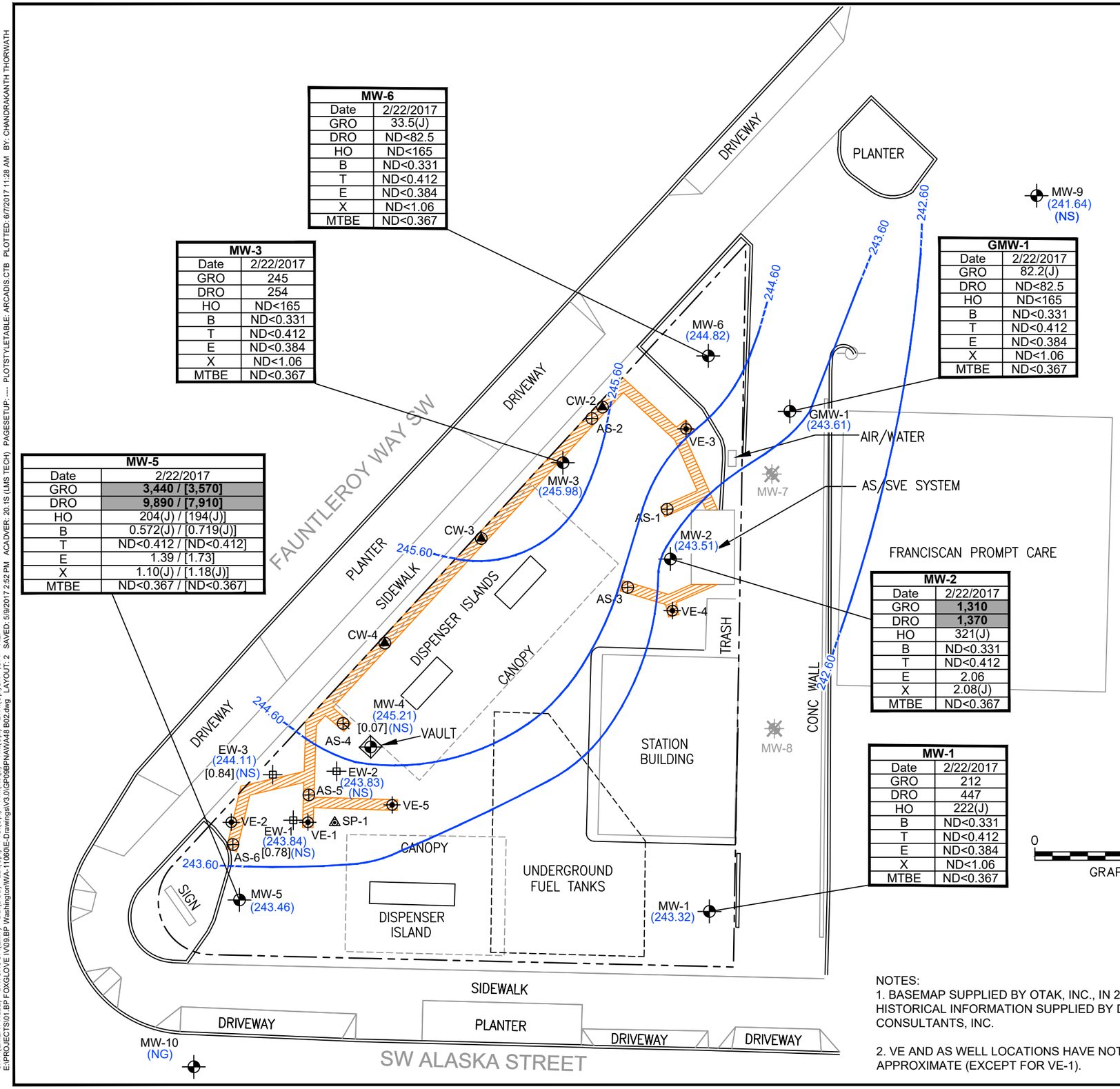
Approximate Scale: 1 in. = 2000 ft.

BP WEST COAST PRODUCTS LLC
FORMER BP STATION NO. 11060
4580 FAUNTLEROY WAY, SEATTLE, WASHINGTON
2017 ANNUAL SITE STATUS REPORT

SITE LOCATION MAP

ARCADIS Design & Consultancy for natural and built assets

FIGURE
1



MW-6	
Date	2/22/2017
GRO	33.5(J)
DRO	ND<82.5
HO	ND<165
B	ND<0.331
T	ND<0.412
E	ND<0.384
X	ND<1.06
MTBE	ND<0.367

MW-3	
Date	2/22/2017
GRO	245
DRO	254
HO	ND<165
B	ND<0.331
T	ND<0.412
E	ND<0.384
X	ND<1.06
MTBE	ND<0.367

GMW-1	
Date	2/22/2017
GRO	82.2(J)
DRO	ND<82.5
HO	ND<165
B	ND<0.331
T	ND<0.412
E	ND<0.384
X	ND<1.06
MTBE	ND<0.367

MW-5	
Date	2/22/2017
GRO	**3,440 / [3,570]**
DRO	**9,890 / [7,910]**
HO	204(J) / [194(J)]
B	0.572(J) / [0.719(J)]
T	ND<0.412 / [ND<0.412]
E	1.39 / [1.73]
X	1.10(J) / [1.18(J)]
MTBE	ND<0.367 / [ND<0.367]

MW-2	
Date	2/22/2017
GRO	**1,310**
DRO	**1,370**
HO	321(J)
B	ND<0.331
T	ND<0.412
E	2.06
X	2.08(J)
MTBE	ND<0.367

MW-1	
Date	2/22/2017
GRO	212
DRO	447
HO	222(J)
B	ND<0.331
T	ND<0.412
E	ND<0.384
X	ND<1.06
MTBE	ND<0.367

LEGEND

- APPROXIMATE PROPERTY LINE
- CW-2 — AS AND VE COMBINATION WELL LOCATION
- MW-2 — MONITORING WELL LOCATION
- MW-7 — ABANDONED MONITORING WELL LOCATION
- VE-2 — VAPOR EXTRACTION WELL LOCATION (APPROXIMATE)
- AS-1 — AIR SPARGE WELL LOCATION (APPROXIMATE)
- EW-1 — EXTRACTION WELL
- TRENCH LOCATION (APPROXIMATE)
- 245.60 — GROUNDWATER ELEVATION CONTOUR, DASHED WHERE INFERRED (FEET ABOVE NAVD 88)
- (245.98) — GROUNDWATER ELEVATION (FEET ABOVE NAVD 88)
- NAVD 88 — NORTH AMERICAN VERTICAL DATUM 1988
- ND<0.331 — NOT DETECTED, VALUE SHOWN IS THE DETECTION LIMIT
- (NS) — NOT SAMPLED
- (NG) — NOT GAUGED
- µg/L — MICROGRAMS PER LITER
- (J) — ESTIMATED VALUE, THE RESULT IS GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT (MDL) AND LESS THEN THE LIMIT OF QUANTITATION
- [0.84] — NAPL THICKNESS (FEET)
- NAPL — NON - AQUEOUS PHASE LIQUID
- **BOLD** — CONSTITUENT DETECTED ABOVE MODEL TOXICS CONTROL ACT METHOD A CLEANUP LEVELS
- AS/SVE — AIR SPARGE AND SOIL VAPOR EXTRACTION

	SAMPLE ID
Date	Sample Date
GRO	Total Petroleum Hydrocarbons (TPH) - Gasoline Range Organics (µg/L) / [Duplicate (µg/L)]
DRO	TPH - Diesel Range Organics (µg/L) / [Duplicate (µg/L)]
HO	TPH - Heavy Oil Range Organics (µg/L) / [Duplicate (µg/L)]
B	Benzene (µg/L) / [Duplicate (µg/L)]
T	Toluene (µg/L) / [Duplicate (µg/L)]
E	Ethylbenzene (µg/L) / [Duplicate (µg/L)]
X	Total Xylenes (µg/L) / [Duplicate (µg/L)]
MTBE	Methyl Tertiary Butyl Ether (µg/L) / [Duplicate (µg/L)]

0 20' 40'

GRAPHIC SCALE

NOTES:
1. BASEMAP SUPPLIED BY OTAK, INC., IN 2010.
HISTORICAL INFORMATION SUPPLIED BY DELTA ENVIRONMENTAL CONSULTANTS, INC.

2. VE AND AS WELL LOCATIONS HAVE NOT BEEN SURVEYED AND ARE APPROXIMATE (EXCEPT FOR VE-1).

BP WEST COAST PRODUCTS LLC
FORMER ARCO FACILITY NO. 11060
4580 FAUNTLEROY WAY, SEATTLE, WASHINGTON
2017 ANNUAL SITE STATUS REPORT

GROUNDWATER ELEVATION CONTOUR MAP WITH ANALYTICAL RESULTS FEBRUARY 22, 2017

ARCADIS Design & Consultancy for natural and built assets

FIGURE 2

MW-6	
Date	8/29/2017
GRO	160
DRO	<139
HO	183(J)
B	<0.331
T	<0.412
E	<0.384
X	<1.06
MTBE	<0.367

MW-3	
Date	8/29/2017
GRO	**1,310**
DRO	383
HO	238(J)
B	3.87
T	0.434(J)
E	3.82
X	1.78(J)
MTBE	<0.367

MW-5	
Date	8/29/2017
GRO	**1,810**
DRO	**7,040**
HO	432
B	**7.48**
T	1.60
E	6.01
X	11.1
MTBE	<0.367

MW-10	
Date	8/29/2017
GRO	<31.6
DRO	78.2(J)
HO	126(J)
B	<0.331
T	<0.412
E	<0.384
X	<1.06
MTBE	<0.367

MW-9	
Date	8/29/2017
GRO	52.9(J)
DRO	115(J)
HO	101(J)
B	<0.331
T	<0.412
E	<0.384
X	<1.06
MTBE	<0.367

GMW-1	
Date	8/29/2017
GRO	**2,070**
DRO	216
HO	104(J)
B	<0.331
T	0.480(J)
E	2.45
X	2.66(J)
MTBE	<0.367

MW-2	
Date	8/29/2017
GRO	**10,000 / [12,200]**
DRO	**1,070 / [1,420]**
HO	242(J) / [423]
B	**27.4 / [31.4]**
T	10.7 / [8.19]
E	90.9 / [98.2]
X	29.4 / [30.5]
MTBE	<0.367 / [<0.367]

MW-1	
Date	8/29/2017
GRO	526
DRO	**611**
HO	450
B	<0.331
T	<0.412
E	<0.384
X	<1.06
MTBE	<0.367

LEGEND

- APPROXIMATE PROPERTY LINE
- CW-2 — AS AND VE COMBINATION WELL LOCATION
- MW-2 — MONITORING WELL LOCATION
- MW-7 — ABANDONED MONITORING WELL LOCATION
- VE-2 — VAPOR EXTRACTION WELL LOCATION (APPROXIMATE)
- AS-1 — AIR SPARGE WELL LOCATION (APPROXIMATE)
- EW-1 — EXTRACTION WELL
- TRENCH LOCATION (APPROXIMATE)
- 242.00 — GROUNDWATER ELEVATION CONTOUR, DASHED WHERE INFERRED (FEET ABOVE NAVD 88)
- (242.40) — GROUNDWATER ELEVATION (FEET ABOVE NAVD 88)
- NAVD 88 — NORTH AMERICAN VERTICAL DATUM 1988
- < — NOT DETECTED, VALUE SHOWN IS THE DETECTION LIMIT
- (NS) — NOT SAMPLED
- µg/L — MICROGRAMS PER LITER
- (J) — ESTIMATED VALUE, THE RESULT IS GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT (MDL) AND LESS THEN THE LIMIT OF QUANTITATION
- [0.60] — NAPL THICKNESS (FEET)
- NAPL — NON - AQUEOUS PHASE LIQUID
- **BOLD** — CONSTITUENT DETECTED ABOVE MODEL TOXICS CONTROL ACT METHOD A CLEANUP LEVELS
- AS/SVE — AIR SPARGE AND SOIL VAPOR EXTRACTION

	SAMPLE ID
Date	Sample Date
GRO	Total Petroleum Hydrocarbons (TPH) - Gasoline Range Organics (µg/L) / [Duplicate (µg/L)]
DRO	TPH - Diesel Range Organics (µg/L) / [Duplicate (µg/L)]
HO	TPH - Heavy Oil Range Organics (µg/L) / [Duplicate (µg/L)]
B	Benzene (µg/L) / [Duplicate (µg/L)]
T	Toluene (µg/L) / [Duplicate (µg/L)]
E	Ethylbenzene (µg/L) / [Duplicate (µg/L)]
X	Total Xylenes (µg/L) / [Duplicate (µg/L)]
MTBE	Methyl Tertiary Butyl Ether (µg/L) / [Duplicate (µg/L)]

0 20' 40'
GRAPHIC SCALE

NOTES:
1. BASEMAP SUPPLIED BY OTAK, INC., IN 2010. HISTORICAL INFORMATION SUPPLIED BY DELTA ENVIRONMENTAL CONSULTANTS, INC.

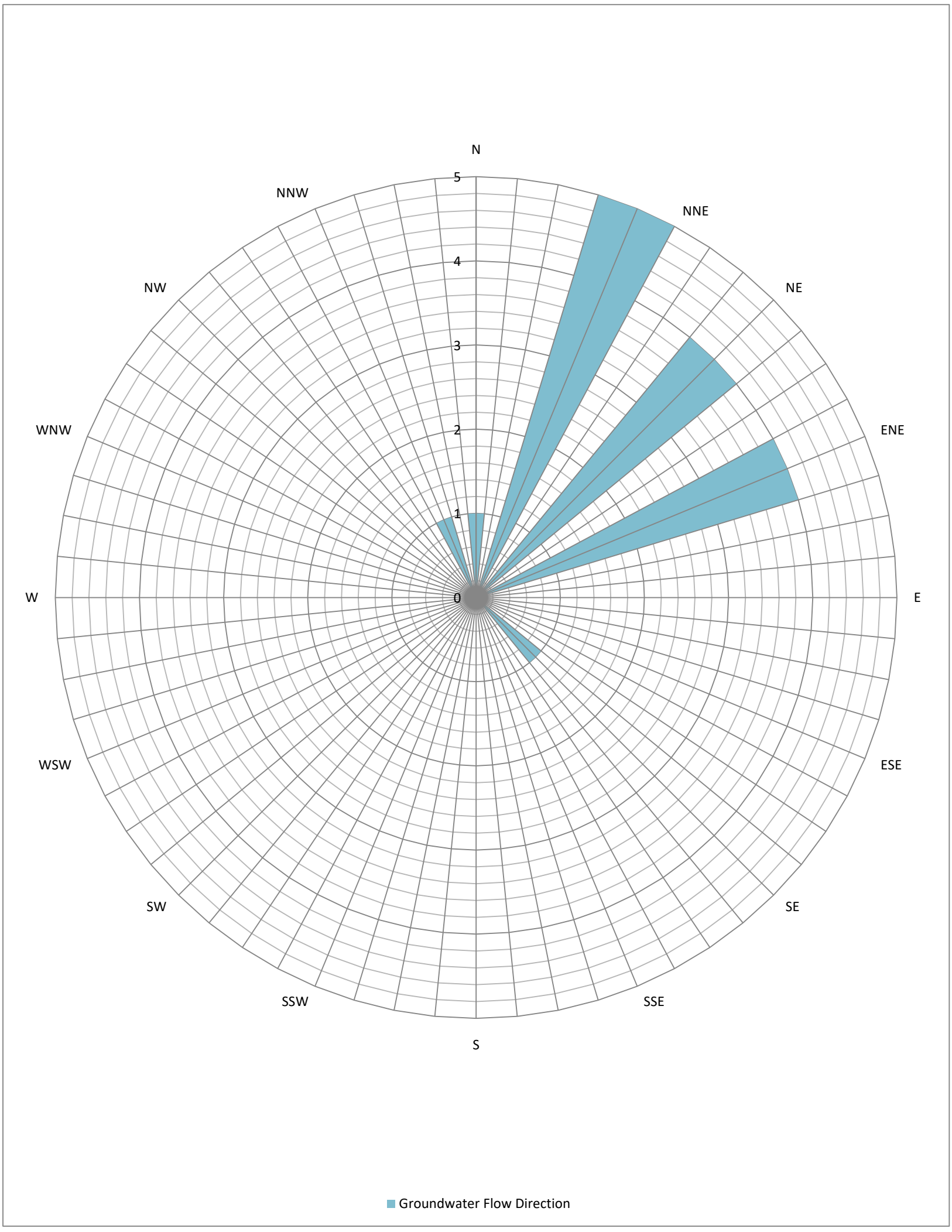
2. VE AND AS WELL LOCATIONS HAVE NOT BEEN SURVEYED AND ARE APPROXIMATE (EXCEPT FOR VE-1).

BP WEST COAST PRODUCTS LLC
FORMER ARCO FACILITY NO. 11060
4580 FAUNTLEROY WAY, SEATTLE, WASHINGTON
2017 ANNUAL SITE STATUS REPORT

GROUNDWATER ELEVATION CONTOUR MAP WITH ANALYTICAL RESULTS AUGUST 29, 2017

ARCADIS Design & Consultancy for natural and built assets

FIGURE 3



Legend

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

Note

Rose diagram based on gradient directions from groundwater monitoring events conducted by ARCADIS since top of casing survey in March 2010.

Number of Events Observed = 15

BP WEST COAST PRODUCTS LLC
FORMER ARCO FACILITY NO. 11060
4580 FAUNTLEROY WAY, SEATTLE, WASHINGTON

2017 ANNUAL SITE STATUS REPORT

HISTORICAL GROUNDWATER GRADIENT DIRECTION ROSE DIAGRAM

ARCADIS Design & Consultancy for natural and built assets

FIGURE 4

ATTACHMENT A

Groundwater Monitoring Field Data Sheets

Groundwater Monitoring Field Data Form
Site: WA-11060

Gauging Data

Date 02/22/2017
Sampler Ryan Brauchla

Well	Date/Time	Depth To Water (ft)	Well Depth (ft)	Depth to LNAPL (ft)	PID (ppmv)	Remarks
EW-1	02/22/2017 10:40	24.98	29.61		714.8	NAPL
EW-2	02/22/2017 10:35	24.10	29.86		4.2	NS
EW-3	02/22/2017 11:07	25.06	29.95		583.3	NAPL
GMW-1	02/22/2017 10:00	22.02	34.19		321.4	NP
MW-1	02/22/2017 10:20	24.11	27.16		61.5	NP
MW-2	02/22/2017 10:13	23.18	27.90		474.4	NP
MW-3	02/22/2017 10:10	20.02	34.19		0.6	NP
MW-4	02/22/2017 10:29	22.63	27.09		781.2	NAPL
MW-5	02/22/2017 10:25	25.00	27.71		702.0	NP
MW-6	02/22/2017 10:04	21.24	29.50		0.6	NP
MW-9	02/22/2017 09:50	21.71	35.08		0.4	NS

Sampler: Ryan Brauchla

Groundwater Monitoring Field Data Form
Site: WA-11060

GMW-1

Date	02/22/2017	Weather Conditions	Overcast	Depth to Water (ft bmp)	22.02
Project Number	GP09BPNA.WA48	Water Quality Meter		Measured Well Depth (ft bmp)	34.19
Address	4580 Fauntleroy Way Southwest, Seattle, WA98126	Casing Material	PVC	Water Column in Well	12.17
		Casing Diameter (in)	2	Gallons in Well	1.98
Purge Method	NP	Pump Intake Depth (ft bmp)		Total Volume to Remove	0.0
Purge Volume Units		Casing Volume to Remove			
Sampling Type	No Purge				
Comments					

Field Parameters

Time	Cuml Vol Purged	Temp ºC	pH	Conductivity (uS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	DTW (ft)	Remarks
11:48		13.0	5.91	1511	74.0	1.25			

Sampling Summary

Sample Date	02/22/2017	Odor	None
Sample Time	11:40	Analysis	GRO DRO HO BTEX MTBE
Sample ID	GMW-1-Q117	COC	
Duplicate Sample ID		Bottles	VOA
Dup Sample Time		Remarks	

Sampler: Ryan Brauchla

Well Integrity Checklist

Item	Yes	No	NA	Notes
Type of well head				2 inch pvc
Well Secured on initial inspection	X			
Is Well ID Visible?	X			
Water in the well box	X			
Sleeve around the well box in good condition	X			
Any cleanup performed (explain)				
Any repairs/replacement (explain)				
Remarks				

Groundwater Monitoring Field Data Form
Site: WA-11060

MW-1

Date	02/22/2017	Weather Conditions		Depth to Water (ft bmp)	24.7
Project Number	GP09BPNA.WA48	Water Quality Meter		Measured Well Depth (ft bmp)	27.16
Address	4580 Fauntleroy Way Southwest, Seattle, WA98126	Casing Material	PVC	Water Column in Well	2.46
		Casing Diameter (in)	4	Gallons in Well	1.6
Purge Method	NP	Pump Intake Depth (ft bmp)		Total Volume to Remove	0.0
Purge Volume Units		Casing Volume to Remove			
Sampling Type	No Purge				
Comments					

Field Parameters

Time	Cuml Vol Purged	Temp ºC	pH	Conductivity (uS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	DTW (ft)	Remarks
13:45		13.5	6.06	649	19.0	1.51			

Sampling Summary

Sample Date	02/22/2017	Odor	None
Sample Time	13:45	Analysis	GRO GRO HO BTEX MTBE
Sample ID	MW-1-Q117	COC	
Duplicate Sample ID		Bottles	VOA
Dup Sample Time		Remarks	

Sampler: Ryan Brauchla

Well Integrity Checklist

Item	Yes	No	NA	Notes
Type of well head				2 inch pvc
Well Secured on initial inspection	X			
Is Well ID Visible?	X			
Water in the well box	X			
Sleeve around the well box in good condition	X			
Any cleanup performed (explain)				
Any repairs/replacement (explain)				
Remarks				

Groundwater Monitoring Field Data Form
Site: WA-11060

MW-2

Date	02/22/2017	Weather Conditions	Cloudy	Depth to Water (ft bmp)	23.18
Project Number	GP09BPNA.WA48	Water Quality Meter	YSI	Measured Well Depth (ft bmp)	27.90
Address	4580 Fauntleroy Way Southwest, Seattle, WA98126	Casing Material	PVC	Water Column in Well	4.72
		Casing Diameter (in)	4	Gallons in Well	3.08
Purge Method	NP	Pump Intake Depth (ft bmp)		Total Volume to Remove	0.0
Purge Volume Units	ml	Casing Volume to Remove			
Sampling Type	No Purge				
Comments					

Field Parameters

Time	Cuml Vol Purged	Temp °C	pH	Conductivity (uS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	DTW (ft)	Remarks
12:18		14.1	3.44	549.9	36.3	1.39		23.18	

Sampling Summary

Sample Date	02/22/2017	Odor	HCLO
Sample Time	12:20	Analysis	GRO/DRO/HO/BTEX/MTBE
Sample ID	MW-2-Q117	COC	
Duplicate Sample ID		Bottles	VOA
Dup Sample Time		Remarks	

Sampler: Ryan Brauchla

Well Integrity Checklist

Item	Yes	No	NA	Notes
Type of well head				2 inch pvc
Well Secured on initial inspection	X			
Is Well ID Visible?	X			
Water in the well box		X		
Sleeve around the well box in good condition	X			
Any cleanup performed (explain)				
Any repairs/replacement (explain)				
Remarks				

Groundwater Monitoring Field Data Form
Site: WA-11060

MW-3

Date	02/22/2017	Weather Conditions	Cloudy	Depth to Water (ft bmp)	20.02
Project Number	GP09BPNA.WA48	Water Quality Meter	YSI	Measured Well Depth (ft bmp)	34.19
Address	4580 Fauntleroy Way Southwest, Seattle, WA98126	Casing Material	PVC	Water Column in Well	14.17
		Casing Diameter (in)	4	Gallons in Well	9.24
Purge Method	NP	Pump Intake Depth (ft bmp)		Total Volume to Remove	0.0
Purge Volume Units	ml	Casing Volume to Remove			
Sampling Type	No Purge				
Comments					

Field Parameters

Time	Cuml Vol Purged	Temp ºC	pH	Conductivity (uS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	DTW (ft)	Remarks
12:06		12.6	6.47	378.0	35.4	3.42		20.02	

Sampling Summary

Sample Date	02/22/2017	Odor	None
Sample Time	12:00	Analysis	GRO/DRO/HO, BTEX/MTBE
Sample ID	MW-3-Q117	COC	
Duplicate Sample ID		Bottles	VOA
Dup Sample Time		Remarks	

Sampler: Ryan Brauchla

Well Integrity Checklist

Item	Yes	No	NA	Notes
Type of well head				4 inch pvc
Well Secured on initial inspection	X			
Is Well ID Visible?	X			
Water in the well box		X		
Sleeve around the well box in good condition	X			
Any cleanup performed (explain)				
Any repairs/replacement (explain)				
Remarks				

Groundwater Monitoring Field Data Form
Site: WA-11060

MW-5

Date	02/22/2017	Weather Conditions		Depth to Water (ft bmp)	25.00
Project Number	GP09BPNA.WA48	Water Quality Meter		Measured Well Depth (ft bmp)	27.71
Address	4580 Fauntleroy Way Southwest, Seattle, WA98126	Casing Material	PVC	Water Column in Well	2.71
		Casing Diameter (in)	4	Gallons in Well	1.77
Purge Method	NP	Pump Intake Depth (ft bmp)		Total Volume to Remove	0.0
Purge Volume Units		Casing Volume to Remove			
Sampling Type	No Purge				
Comments					

Field Parameters

Time	Cuml Vol Purged	Temp °C	pH	Conductivity (uS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	DTW (ft)	Remarks
12:30		12.8	6.23	1640	-25.8	1.60			

Sampling Summary

Sample Date	02/22/2017	Odor	HCLO
Sample Time	12:30	Analysis	GRO DRO HO BTEX MTBE
Sample ID	MW-5-Q117	COC	
Duplicate Sample ID	DUP-1	Bottles	
Dup Sample Time	12:30	Remarks	

Sampler: Ryan Brauchla

Well Integrity Checklist

Item	Yes	No	NA	Notes
Type of well head				2 inch PVC
Well Secured on initial inspection	X			
Is Well ID Visible?	X			
Water in the well box		X		
Sleeve around the well box in good condition	X			
Any cleanup performed (explain)				
Any repairs/replacement (explain)				
Remarks				

Groundwater Monitoring Field Data Form
Site: WA-11060

MW-6

Date	02/22/2017	Weather Conditions	Overcast. cool	Depth to Water (ft bmp)	21.24
Project Number	GP09BPNA.WA48	Water Quality Meter	YSI	Measured Well Depth (ft bmp)	29.50
Address	4580 Fauntleroy Way Southwest, Seattle, WA98126	Casing Material	PVC	Water Column in Well	8.26
		Casing Diameter (in)	2	Gallons in Well	1.35
Purge Method	NP	Pump Intake Depth (ft bmp)		Total Volume to Remove	0.0
Purge Volume Units	ml	Casing Volume to Remove			
Sampling Type	No Purge				
Comments					

Field Parameters

Time	Cuml Vol Purged	Temp °C	pH	Conductivity (uS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	DTW (ft)	Remarks
11:28		11.7	6.59	214.8	150.5	5.51			

Sampling Summary

Sample Date	02/22/2017	Odor	None
Sample Time	11:20	Analysis	GRO, DRO, HO, BTEX, MTBE
Sample ID	MW-6-Q117	COC	
Duplicate Sample ID		Bottles	VOA
Dup Sample Time		Remarks	

Sampler: Ryan Brauchla

Well Integrity Checklist

Item	Yes	No	NA	Notes
Type of well head				2 inch pvc
Well Secured on initial inspection	X			
Is Well ID Visible?	X			
Water in the well box	X			
Sleeve around the well box in good condition	X			
Any cleanup performed (explain)				
Any repairs/replacement (explain)				
Remarks				

WELL GAUGING DATA

Project # 170829-CP1 Date 8/29/17 Client Arcadis

Site 4580 Fauntleroy Way SW Seattle WA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Water/ SPH Meter	PID
EW-1	0802	6	odor	25.68	0.60	—	26.28	—	**	699
EW-2	0810	6	odor				25.56	29.77	**	15.0
EW-3	0820	6	odor	25.99	0.76	—	26.75	—	**	372
GMW-1	0954	2					23.86	34.08	**	0.0
MW-1	1111	4					25.20	27.02	**	0.0
MW-2	1042	4					24.86	27.75	**	10.9
MW-3	0910	4					24.09	33.92	**	0.0
MW-4	0829	4	odor	24.82	0.68	—	26.50	—	**	135.1
MW-5	0835	4					26.20	27.61	**	20.0
MW-6	1013	2					24.16	29.19	**	0.0
MW-9	0932	2					22.47	34.85	**	0.0
MW-10	1142	2					25.93	35.17	**	0.0

Instruments Used: Durham Geoslope Water Level Indicator* GeoTech Oil/Water Interface Probe** Other: _____

Survey Point - Top of casing at all wells

WELL MONITORING DATA SHEET

Project #: 170829-CP1	Station #: 11060
Sampler: C	Date: 8/29/17
Well I.D.: GMW-1	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 34.08	Depth to Water: 23.86
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method:
Bailer
Disposable Bailer
Positive Air Displacement
Electric Submersible
Waterra
Peristaltic
Extraction Pump
Other: _____
Model #: Screen Interval: _____

Sampling Method:
Bailer
(Disposable Bailer)
Extraction Port
Dedicated Tubing
Other: _____
Pump Depth: _____

Instruments Used:
Myron L Ultrameter
Durham Geoslope Indicator
GeoTech Interface Probe
MMC Interface Probe
HACH Turbidimeter
YSI 556 Flow-Thru Cell
YSI 550 DO Meter
Other: _____

_____ (Gals.) X _____ = _____ Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations/ DTW
	—	No Purge Sample Taken —				
0958	64.3	7.06	541	24	—	

Did well dewater? Yes (No) Gallons actually evacuated: —

Sampling Date: 8/29/17 Sampling Time: 0956 Depth to Water: 23.86

Sample I.D. GMW-1-08292017 Laboratory: Test America Other ESC

Analyzed for: (GRO) (BTEX) OXYS ETHANOL Other: See COC

Duplicate I.D.: Analyzed for: GRO BTEX OXYS ETHANOL Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.61 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	230 mV

WELL MONITORING DATA SHEET

Project #: 170829-CP1	Station #: 11060
Sampler: CP	Date: 8/29/17
Well I.D.: MW-1	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: 27.02	Depth to Water: 25.20
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method:
Bailer
Disposable Bailer
Positive Air Displacement
Electric Submersible
Waterra
Peristaltic
Extraction Pump
Other: _____
Model #: Screen Interval: _____

Sampling Method:
Bailer
(Disposable Bailer)
Extraction Port
Dedicated Tubing
Other: _____
Pump Depth: _____

Instruments Used:
(Myron L Ultrameter) HACH Turbidimeter
Durham Geoslope Indicator YSI 556 Flow-Thru Cell
GeoTech Interface Probe YSI 550 DO Meter
MMC Interface Probe Other: _____

_____ (Gals.) X _____ = _____ Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations/ DTW
	—	No Purge Sample Taken				—
1118	63.7	6.86	897	23	—	

Did well dewater? Yes (No) Gallons actually evacuated: —

Sampling Date: 8/29/17 Sampling Time: 1116 Depth to Water: 25.20

Sample I.D.: MW-1-0829.2017 Laboratory: Test America Other ESC

Analyzed for: (GRO) (BTEX) OXYS ETHANOL Other: See COC

Duplicate I.D.: Analyzed for: GRO BTEX OXYS ETHANOL Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.29	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	207	mV

WELL MONITORING DATA SHEET

Project #: 170829.CP1	Station #: 11060
Sampler: CP	Date: 8/29/17
Well I.D.: MW-2	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: 27.75	Depth to Water: 24.86
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method:
Bailer / Waterra
Disposable Bailer / Peristaltic
Positive Air Displacement / Extraction Pump
Electric Submersible
Other: _____
Model #: Screen Interval: _____

Sampling Method:
Bailer
(Disposable Bailer)
Extraction Port
Dedicated Tubing
Other: _____
Pump Depth: _____

Instruments Used:
(Myron L Ultrameter) / HACH Turbidimeter
Durham Geoslope Indicator / YSI 556 Flow-Thru Cell
GeoTech Interface Probe / YSI 550 DO Meter
MMC Interface Probe / Other: _____

1 Case Volume	Specified Volumes	Calculated Volume
____ (Gals.) X	____	= ____ Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations/ DTW
	—	No Purge Sample Taken —				
1047	65.5	6.38	908	40	—	

Did well dewater? Yes (No) Gallons actually evacuated: —

Sampling Date: 8/29/17 Sampling Time: 1045 Depth to Water: 24.86

Sample I.D.: MW-2-08292017 Laboratory: Test America Other ESC

Analyzed for: (GRO) (BTEX) OXYS ETHANOL Other: See COC

Duplicate I.D.: BD-11060-08292017 Analyzed for: (GRO) (BTEX) OXYS ETHANOL Other: See COC

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.33	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	247	mV

WELL MONITORING DATA SHEET

Project #: 170829.01	Station #: 11060
Sampler: CP	Date: 8/29/17
Well I.D.: MW-3	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 33.92	Depth to Water: 24.09
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method:
Bailer
Disposable Bailer
Positive Air Displacement
Electric Submersible
Other: /
Waterra
Peristaltic
Extraction Pump
Model #: Screen Interval:

Sampling Method:
Bailer
(Disposable Bailer)
Extraction Port
Dedicated Tubing
Other:
Pump Depth:

Instruments Used:
(Myron L Ultrameter) (HACH Turbidimeter)
Durham Geoslope Indicator (YSI 556 Flow-Thru Cell)
GeoTech Interface Probe YSI 550 DO Meter
MMC Interface Probe Other:

/ (Gals.) X / = / Gals.
1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations/ DTW
	—	No	Purge	Sample	Taken —	
0917	61.6	7.69	673	42	—	

Did well dewater? Yes (No) Gallons actually evacuated: —

Sampling Date: 8/29/17 Sampling Time: 0915 Depth to Water: 24.09

Sample I.D.: MW-3-08292017 Laboratory: Test America Other ESC

Analyzed for: (GRO) (BTEX) OXYS ETHANOL Other: See COC

Duplicate I.D.: Analyzed for: GRO BTEX OXYS ETHANOL Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.53	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	-76	mV

WELL MONITORING DATA SHEET

Project #: 170829-CP1	Station #: 11060
Sampler: CP	Date: 8/29/17
Well I.D.: MW-4	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: —	Depth to Water: 26.50
Depth to Free Product: 24.82	Thickness of Free Product (feet): 0.68
Referenced to: (PVC) Grade	
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method:
Bailer
Disposable Bailer
Positive Air Displacement
Electric Submersible
Other: ____
Waterra
Peristaltic
Extraction Pump
Model #: Screen Interval: ____

Sampling Method:
Bailer
Disposable Bailer
Extraction Port
Dedicated Tubing
Other: ____
Pump Depth: ____

Instruments Used:
Myron L Ultrameter
Durham Geoslope Indicator
GeoTech Interface Probe
MMC Interface Probe
HACH Turbidimeter
YSI 556 Flow-Thru Cell
YSI 550 DO Meter
Other: ____

____ (Gals.) X ____ = ____ Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations/ DTW
		- 0.68' of SPH Detected				
		w/ Interface Probe -				
		- No Sample Taken -				

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: Sampling Time: Depth to Water:

Sample I.D.: Laboratory: Test America Other ____

Analyzed for: GRO BTEX OXYS ETHANOL Other:

Duplicate I.D.: Analyzed for: GRO BTEX OXYS ETHANOL Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 170829-CP1	Station #: 11060
Sampler: AP	Date: 8/29/17
Well I.D.: MW-5	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 27.61	Depth to Water: 26.20
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method:
Bailer — Waterra
Disposable Bailer — Peristaltic
Positive Air Displacement — Extraction Pump
Electric Submersible
Other: _____
Model #: Screen Interval: _____

Sampling Method:
Bailer
Disposable Bailer
Extraction Port
Dedicated Tubing
Other: _____
Pump Depth: _____

Instruments Used:
Myron L Ultrameter — HACH Turbidimeter
Durham Geoslope Indicator — YSI 556 Flow-Thru Cell
GeoTech Interface Probe — YSI 550 DO Meter
MMC Interface Probe — Other: _____

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

___ (Gals.) X ___ = ___ Gals.
1 Case Volume — Specified Volumes — Calculated Volume

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations/ DTW
		— No	Purge	Sample Taken —		
0842	66.5	6.84	1476	154	—	

Did well dewater? Yes (No) Gallons actually evacuated: —

Sampling Date: 8/29/17 Sampling Time: 0840 Depth to Water: 26.20

Sample I.D.: MW-5-08292017 Laboratory: Test America Other ESC

Analyzed for: (GRO) (BTEX) OXYS ETHANOL Other: See COC

Duplicate I.D.: Analyzed for: GRO BTEX OXYS ETHANOL Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.82 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	187 mV

WELL MONITORING DATA SHEET

Project #: 170829-CP1	Station #: 11060
Sampler: CP	Date: 8/29/17
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 29.19	Depth to Water: 24.16
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method:
Bailer / Waterra
Disposable Bailer / Peristaltic
Positive Air Displacement / Extraction Pump
Electric Submersible
Other: ___
Model #: Screen Interval: ___

Sampling Method:
Bailer
Disposable Bailer
Extraction Port
Dedicated Tubing
Other: ___
Pump Depth: ___

Instruments Used:
Myron L Ultrameter / HACH Turbidimeter
Durham Geoslope Indicator / YSI 556 Flow-Thru Cell
GeoTech Interface Probe / YSI 550 DO Meter
MMC Interface Probe / Other: ___

___ (Gals.) X ___ = ___ Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations/ DTW
	—	No Purge Sample Taken			—	
1021	65.2	7.36	172	>1000	—	

Did well dewater? Yes (No) Gallons actually evacuated: —

Sampling Date: 8/29/17 Sampling Time: 1019 Depth to Water: 24.16

Sample I.D.: MW-6-08292017 Laboratory: Test America Other ESC

Analyzed for: (GRO) (BTEX) OXYS ETHANOL Other: See COC

Duplicate I.D.: Analyzed for: GRO BTEX OXYS ETHANOL Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.46	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	153	mV

WELL MONITORING DATA SHEET

Project #: 170829-CP1	Station #: 11060
Sampler: CP	Date: 8/29/17
Well I.D.: MW-9	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 34.85	Depth to Water: 22.47
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method:
Bailer / Waterra
Disposable Bailer / Peristaltic
Positive Air Displacement / Extraction Pump
Electric Submersible
Other: _____
Model #: Screen Interval: _____

Sampling Method:
Bailer
Disposable Bailer
Extraction Port
Dedicated Tubing
Other: _____
Pump Depth: _____

Instruments Used:
Myron L Ultrameter / HACH Turbidimeter
Durham Geoslope Indicator / YSI 556 Flow-Thru Cell
GeoTech Interface Probe / YSI 550 DO Meter
MMC Interface Probe / Other: _____

1 Case Volume	Specified Volumes	Calculated Volume
_____ (Gals.) X	_____	= _____ Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations/ DTW
	—	No Purge Sample Taken —				
0938	63.4	7.77	499	37	—	

Did well dewater? Yes (No) Gallons actually evacuated:

Sampling Date: 8/29/17 Sampling Time: 0936 Depth to Water: 22.47

Sample I.D.: MW-9-08292017 Laboratory: Test America Other ESC

Analyzed for: (GRO) BTEX OXYS ETHANOL Other: See COC

Duplicate I.D.: Analyzed for: GRO BTEX OXYS ETHANOL Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.35	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	151	mV

WELL MONITORING DATA SHEET

Project #: 170829-CP1	Station #: 11060
Sampler: CP	Date: 8/29/17
Well I.D.: MW-10	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 35.17	Depth to Water: 25.93
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method:
Bailer — Waterra
Disposable Bailer — Peristaltic
Positive Air Displacement — Extraction Pump
Electric Submersible
Other: ____
Model #: Screen Interval: ____

Sampling Method:
Bailer
Disposable Bailer
Extraction Port
Dedicated Tubing
Other: ____
Pump Depth: ____

Instruments Used:
Myron L Ultrameter — HACH Turbidimeter
Durham Geoslope Indicator — YSI 556 Flow-Thru Cell
GeoTech Interface Probe — YSI 550 DO Meter
MMC Interface Probe — Other: ____

____ (Gals.) X ____ = ____ Gals.
1 Case Volume — Specified Volumes — Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations/ DTW
	—	No Purge Sample Taken —				
1150	62.9	7.01	911	44	—	

Did well dewater? Yes (No) Gallons actually evacuated: —

Sampling Date: 8/29/17 Sampling Time: 1148 Depth to Water: 25.93

Sample I.D.: MW-10-08292017 Laboratory: Test America Other ESC

Analyzed for: (GRO) BTEX OXYS ETHANOL Other: See COC

Duplicate I.D.: Analyzed for: GRO BTEX OXYS ETHANOL Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.19	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	-226	mV

ATTACHMENT B

Laboratory Report and Chain of Custody Documents

ANALYTICAL REPORT

March 07, 2017

Arcadis - Seattle, WA

Sample Delivery Group:	L891914
Samples Received:	02/23/2017
Project Number:	GP09BPNA.WA48
Description:	WA-11060
Site:	4580 FAUNTLEROY WAY SW, SEATTL
Report To:	Ross LaGrandeur 1100 Olive Way Suite 800 Seattle, WA 98101

Entire Report Reviewed By:

Brian Ford

Technical Service Representative

TABLE OF CONTENTS

GMW-1 L891914-01 GW

Collected by: RB | Collected date/time: 02/22/17 11:40 | Received date/time: 02/23/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG955667	1	02/25/17 21:57	02/25/17 21:57	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG955757	1	03/01/17 02:34	03/01/17 02:34	ACG
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG955287	1	02/26/17 07:24	02/28/17 02:22	TRF

MW-1 L891914-02 GW

Collected by: RB | Collected date/time: 02/22/17 13:45 | Received date/time: 02/23/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG955667	1	02/25/17 22:20	02/25/17 22:20	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG955757	1	03/01/17 02:55	03/01/17 02:55	ACG
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG955287	1	02/26/17 07:24	02/28/17 02:39	TRF

MW-2 L891914-03 GW

Collected by: RB | Collected date/time: 02/22/17 12:20 | Received date/time: 02/23/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG955667	1	02/25/17 22:43	02/25/17 22:43	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG955757	1	03/01/17 03:15	03/01/17 03:15	ACG
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG955287	1	02/26/17 07:24	02/28/17 02:56	TRF

MW-3 L891914-04 GW

Collected by: RB | Collected date/time: 02/22/17 12:00 | Received date/time: 02/23/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG955667	1	02/25/17 23:05	02/25/17 23:05	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG955757	1	03/01/17 03:37	03/01/17 03:37	ACG
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG955287	1	02/26/17 07:24	02/28/17 03:12	TRF

MW-5 L891914-05 GW

Collected by: RB | Collected date/time: 02/22/17 12:30 | Received date/time: 02/23/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG955667	1	02/25/17 23:27	02/25/17 23:27	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG955757	1	03/01/17 03:58	03/01/17 03:58	ACG
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG955287	1	02/26/17 07:24	02/28/17 03:29	KLM
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG955287	5	02/26/17 07:24	02/28/17 20:37	TH

MW-6 L891914-06 GW

Collected by: RB | Collected date/time: 02/22/17 11:20 | Received date/time: 02/23/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG955667	1	02/25/17 23:50	02/25/17 23:50	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG955757	1	03/01/17 04:19	03/01/17 04:19	ACG
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG955287	1	02/26/17 07:24	02/28/17 03:46	TRF

DUP-1 L891914-07 GW

Collected by: RB
Collected date/time: 02/22/17 00:00
Received date/time: 02/23/17 09:00

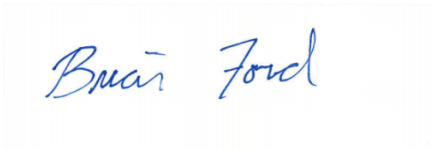
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG955667	1	02/26/17 00:12	02/26/17 00:12	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG955757	1	03/01/17 04:40	03/01/17 04:40	ACG
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG955287	1	02/26/17 07:24	02/28/17 04:02	KLM
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG955287	5	02/26/17 07:24	02/28/17 20:54	TH

TRIP BLANK L891914-08 GW

Collected by: RB
Collected date/time: 02/22/17 00:00
Received date/time: 02/23/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG955757	1	02/28/17 22:20	02/28/17 22:20	ACG

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



Brian Ford
Technical Service Representative

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	82.2	J	31.6	100	1	02/25/2017 21:57	WG955667
(S) a,a,a-Trifluorotoluene(FID)	*95.2*			*77.0-122*		*02/25/2017 21:57*	WG955667

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	03/01/2017 02:34	WG955757
Toluene	U		0.412	1.00	1	03/01/2017 02:34	WG955757
Ethylbenzene	U		0.384	1.00	1	03/01/2017 02:34	WG955757
Total Xylenes	U		1.06	3.00	1	03/01/2017 02:34	WG955757
Methyl tert-butyl ether	U		0.367	1.00	1	03/01/2017 02:34	WG955757
(S) Toluene-d8	*102*			*80.0-120*		*03/01/2017 02:34*	WG955757
(S) Dibromofluoromethane	*95.9*			*76.0-123*		*03/01/2017 02:34*	WG955757
(S) a,a,a-Trifluorotoluene	*99.4*			*80.0-120*		*03/01/2017 02:34*	WG955757
(S) 4-Bromofluorobenzene	*83.1*			*80.0-120*		*03/01/2017 02:34*	WG955757

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		82.5	250	1	02/28/2017 02:22	WG955287
Residual Range Organics (RRO)	U		165	500	1	02/28/2017 02:22	WG955287
(S) o-Terphenyl	*106*			*52.0-156*		*02/28/2017 02:22*	WG955287

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	212		31.6	100	1	02/25/2017 22:20	WG955667
(S) a,a,a-Trifluorotoluene(FID)	*95.5*			*77.0-122*		*02/25/2017 22:20*	WG955667

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.331	1.00	1	03/01/2017 02:55	WG955757
Toluene	U		0.412	1.00	1	03/01/2017 02:55	WG955757
Ethylbenzene	U		0.384	1.00	1	03/01/2017 02:55	WG955757
Total Xylenes	U		1.06	3.00	1	03/01/2017 02:55	WG955757
Methyl tert-butyl ether	U		0.367	1.00	1	03/01/2017 02:55	WG955757
(S) Toluene-d8	*102*			*80.0-120*		*03/01/2017 02:55*	WG955757
(S) Dibromofluoromethane	*94.7*			*76.0-123*		*03/01/2017 02:55*	WG955757
(S) a,a,a-Trifluorotoluene	*98.5*			*80.0-120*		*03/01/2017 02:55*	WG955757
(S) 4-Bromofluorobenzene	*86.0*			*80.0-120*		*03/01/2017 02:55*	WG955757

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	447		82.5	250	1	02/28/2017 02:39	WG955287
Residual Range Organics (RRO)	222	J	165	500	1	02/28/2017 02:39	WG955287
(S) o-Terphenyl	*109*			*52.0-156*		*02/28/2017 02:39*	WG955287

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	1310		31.6	100	1	02/25/2017 22:43	WG955667
(S) a,a,a-Trifluorotoluene(FID)	*95.1*			*77.0-122*		*02/25/2017 22:43*	WG955667

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.331	1.00	1	03/01/2017 03:15	WG955757
Toluene	U		0.412	1.00	1	03/01/2017 03:15	WG955757
Ethylbenzene	2.06		0.384	1.00	1	03/01/2017 03:15	WG955757
Total Xylenes	2.08	J	1.06	3.00	1	03/01/2017 03:15	WG955757
Methyl tert-butyl ether	U		0.367	1.00	1	03/01/2017 03:15	WG955757
(S) Toluene-d8	*98.9*			*80.0-120*		*03/01/2017 03:15*	WG955757
(S) Dibromofluoromethane	*92.3*			*76.0-123*		*03/01/2017 03:15*	WG955757
(S) a,a,a-Trifluorotoluene	*97.6*			*80.0-120*		*03/01/2017 03:15*	WG955757
(S) 4-Bromofluorobenzene	*88.5*			*80.0-120*		*03/01/2017 03:15*	WG955757

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	1370		82.5	250	1	02/28/2017 02:56	WG955287
Residual Range Organics (RRO)	321	J	165	500	1	02/28/2017 02:56	WG955287
(S) o-Terphenyl	*102*			*52.0-156*		*02/28/2017 02:56*	WG955287

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	245		31.6	100	1	02/25/2017 23:05	WG955667
(S) a,a,a-Trifluorotoluene(FID)	*95.6*			*77.0-122*		*02/25/2017 23:05*	WG955667

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.331	1.00	1	03/01/2017 03:37	WG955757
Toluene	U		0.412	1.00	1	03/01/2017 03:37	WG955757
Ethylbenzene	U		0.384	1.00	1	03/01/2017 03:37	WG955757
Total Xylenes	U		1.06	3.00	1	03/01/2017 03:37	WG955757
Methyl tert-butyl ether	U		0.367	1.00	1	03/01/2017 03:37	WG955757
(S) Toluene-d8	*103*			*80.0-120*		*03/01/2017 03:37*	WG955757
(S) Dibromofluoromethane	*95.9*			*76.0-123*		*03/01/2017 03:37*	WG955757
(S) a,a,a-Trifluorotoluene	*100*			*80.0-120*		*03/01/2017 03:37*	WG955757
(S) 4-Bromofluorobenzene	*84.7*			*80.0-120*		*03/01/2017 03:37*	WG955757

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	254		82.5	250	1	02/28/2017 03:12	WG955287
Residual Range Organics (RRO)	U		165	500	1	02/28/2017 03:12	WG955287
(S) o-Terphenyl	*113*			*52.0-156*		*02/28/2017 03:12*	WG955287

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	3440		31.6	100	1	02/25/2017 23:27	WG955667
(S) a,a,a-Trifluorotoluene(FID)	*88.4*			*77.0-122*		*02/25/2017 23:27*	WG955667

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	0.572	J	0.331	1.00	1	03/01/2017 03:58	WG955757
Toluene	U		0.412	1.00	1	03/01/2017 03:58	WG955757
Ethylbenzene	1.39		0.384	1.00	1	03/01/2017 03:58	WG955757
Total Xylenes	1.10	J	1.06	3.00	1	03/01/2017 03:58	WG955757
Methyl tert-butyl ether	U		0.367	1.00	1	03/01/2017 03:58	WG955757
(S) Toluene-d8	*98.1*			*80.0-120*		*03/01/2017 03:58*	WG955757
(S) Dibromofluoromethane	*93.1*			*76.0-123*		*03/01/2017 03:58*	WG955757
(S) a,a,a-Trifluorotoluene	*94.7*			*80.0-120*		*03/01/2017 03:58*	WG955757
(S) 4-Bromofluorobenzene	*88.5*			*80.0-120*		*03/01/2017 03:58*	WG955757

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	9890		412	1250	5	02/28/2017 20:37	WG955287
Residual Range Organics (RRO)	204	J	165	500	1	02/28/2017 03:29	WG955287
(S) o-Terphenyl	*114*			*52.0-156*		*02/28/2017 20:37*	WG955287
(S) o-Terphenyl	*108*			*52.0-156*		*02/28/2017 03:29*	WG955287

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	33.5	J	31.6	100	1	02/25/2017 23:50	WG955667
(S) a,a,a-Trifluorotoluene(FID)	*96.4*			*77.0-122*		*02/25/2017 23:50*	WG955667

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	03/01/2017 04:19	WG955757
Toluene	U		0.412	1.00	1	03/01/2017 04:19	WG955757
Ethylbenzene	U		0.384	1.00	1	03/01/2017 04:19	WG955757
Total Xylenes	U		1.06	3.00	1	03/01/2017 04:19	WG955757
Methyl tert-butyl ether	U		0.367	1.00	1	03/01/2017 04:19	WG955757
(S) Toluene-d8	*101*			*80.0-120*		*03/01/2017 04:19*	WG955757
(S) Dibromofluoromethane	*91.0*			*76.0-123*		*03/01/2017 04:19*	WG955757
(S) a,a,a-Trifluorotoluene	*102*			*80.0-120*		*03/01/2017 04:19*	WG955757
(S) 4-Bromofluorobenzene	*85.1*			*80.0-120*		*03/01/2017 04:19*	WG955757

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		82.5	250	1	02/28/2017 03:46	WG955287
Residual Range Organics (RRO)	U		165	500	1	02/28/2017 03:46	WG955287
(S) o-Terphenyl	*108*			*52.0-156*		*02/28/2017 03:46*	WG955287

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	3570		31.6	100	1	02/26/2017 00:12	WG955667
(S) a,a,a-Trifluorotoluene(FID)	*88.1*			*77.0-122*		*02/26/2017 00:12*	WG955667

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	0.719	J	0.331	1.00	1	03/01/2017 04:40	WG955757
Toluene	U		0.412	1.00	1	03/01/2017 04:40	WG955757
Ethylbenzene	1.73		0.384	1.00	1	03/01/2017 04:40	WG955757
Total Xylenes	1.18	J	1.06	3.00	1	03/01/2017 04:40	WG955757
Methyl tert-butyl ether	U		0.367	1.00	1	03/01/2017 04:40	WG955757
(S) Toluene-d8	*95.7*			*80.0-120*		*03/01/2017 04:40*	WG955757
(S) Dibromofluoromethane	*91.0*			*76.0-123*		*03/01/2017 04:40*	WG955757
(S) a,a,a-Trifluorotoluene	*94.2*			*80.0-120*		*03/01/2017 04:40*	WG955757
(S) 4-Bromofluorobenzene	*91.4*			*80.0-120*		*03/01/2017 04:40*	WG955757

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	7910		412	1250	5	02/28/2017 20:54	WG955287
Residual Range Organics (RRO)	194	J	165	500	1	02/28/2017 04:02	WG955287
(S) o-Terphenyl	*112*			*52.0-156*		*02/28/2017 04:02*	WG955287
(S) o-Terphenyl	*122*			*52.0-156*		*02/28/2017 20:54*	WG955287

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.331	1.00	1	02/28/2017 22:20	WG955757
Toluene	U		0.412	1.00	1	02/28/2017 22:20	WG955757
Ethylbenzene	U		0.384	1.00	1	02/28/2017 22:20	WG955757
Total Xylenes	U		1.06	3.00	1	02/28/2017 22:20	WG955757
Methyl tert-butyl ether	U		0.367	1.00	1	02/28/2017 22:20	WG955757
(S) Toluene-d8	*101*			*80.0-120*		*02/28/2017 22:20*	WG955757
(S) Dibromofluoromethane	*95.1*			*76.0-123*		*02/28/2017 22:20*	WG955757
(S) a,a,a-Trifluorotoluene	*102*			*80.0-120*		*02/28/2017 22:20*	WG955757
(S) 4-Bromofluorobenzene	*85.2*			*80.0-120*		*02/28/2017 22:20*	WG955757

Method Blank (MB)

(MB) R3199422-3 02/25/17 18:57

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*97.3*			*77.0-122*

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

(LCS) R3199422-1 02/25/17 17:50 • (LCSD) R3199422-2 02/25/17 18:12

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Gasoline Range Organics-NWTPH	5500	5570	5570	101	101	72.0-134			0.0400	20
(S) a,a,a-Trifluorotoluene(FID)				*101*	*99.9*	*77.0-122*				

L892407-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L892407-01 02/25/17 20:51 • (MS) R3199422-4 02/25/17 19:44 • (MSD) R3199422-5 02/25/17 20:07

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Gasoline Range Organics-NWTPH	5500	123	2850	2640	49.6	45.7	1	23.0-159			7.80	20
(S) a,a,a-Trifluorotoluene(FID)					*92.7*	*93.2*		*77.0-122*				

Method Blank (MB)

(MB) R3200155-3 02/28/17 21:39

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.331	1.00
Ethylbenzene	U		0.384	1.00
Methyl tert-butyl ether	U		0.367	1.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	*101*			*80.0-120*
(S) Dibromofluoromethane	*92.9*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*101*			*80.0-120*
(S) 4-Bromofluorobenzene	*83.8*			*80.0-120*

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

(LCS) R3200155-1 02/28/17 20:36 • (LCSD) R3200155-2 02/28/17 20:56

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	25.0	23.3	22.4	93.0	89.5	69.0-123			3.89	20
Ethylbenzene	25.0	23.1	21.7	92.6	86.8	77.0-120			6.47	20
Methyl tert-butyl ether	25.0	19.3	18.6	77.2	74.3	64.0-123			3.86	20
Toluene	25.0	23.2	22.7	92.7	90.9	77.0-120			1.94	20
Xylenes, Total	75.0	66.9	62.3	89.2	83.1	77.0-120			7.12	20
(S) Toluene-d8				*98.1*	*98.5*	*80.0-120*				
(S) Dibromofluoromethane				*90.1*	*91.3*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*98.4*	*99.3*	*80.0-120*				
(S) 4-Bromofluorobenzene				*87.2*	*83.9*	*80.0-120*				

Method Blank (MB)

(MB) R3199769-1 02/27/17 17:57

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Diesel Range Organics (DRO)	U		83.3	250
Residual Range Organics (RRO)	U		167	500
(S) o-Terphenyl	*109*			*52.0-156*

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

(LCS) R3199769-2 02/27/17 18:14 • (LCSD) R3199769-3 02/27/17 18:30

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Diesel Range Organics (DRO)	750	924	927	123	124	50.0-150			0.310	20
Residual Range Organics (RRO)	750	805	790	107	105	50.0-150			1.94	20
(S) o-Terphenyl				*111*	*109*	*52.0-156*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

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

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

State Accreditations

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

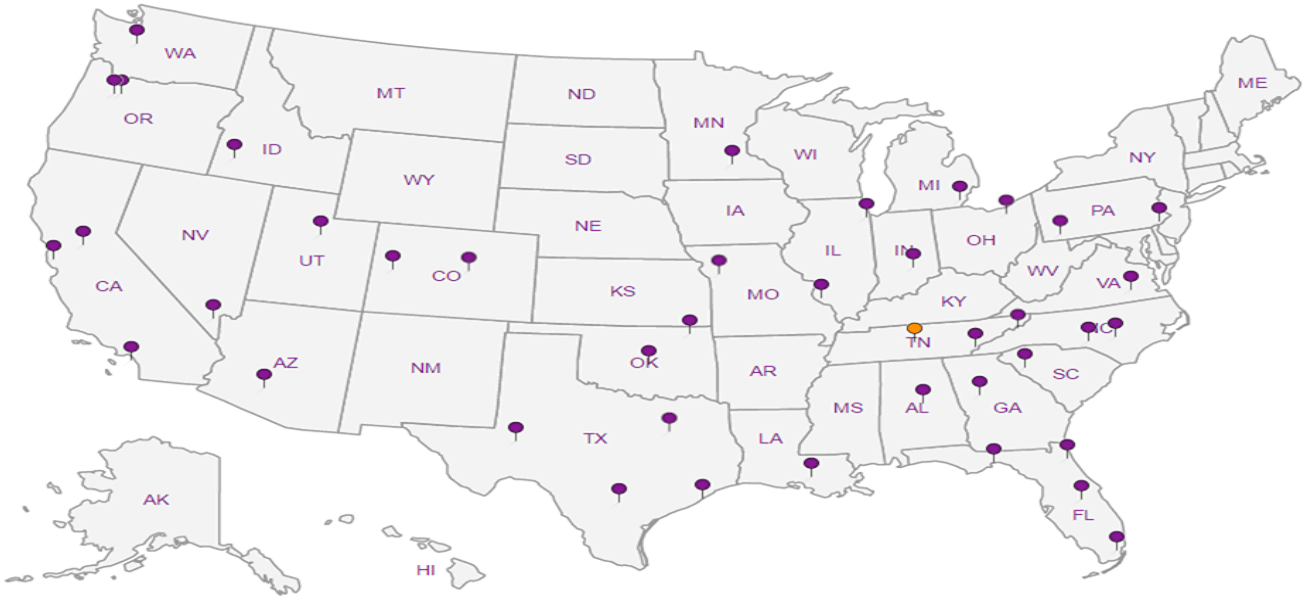
Third Party & Federal Accreditations

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

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

Our Locations

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



Arcadis - Seattle, WA

1100 Olive Way
Suite 800
Seattle, WA 98101

Billing Information:
Attn: Accounts Payable
630 Plaza Dr., Ste. 600
Highlands Ranch, CO 80129

Pres Chk

Report to: Ross LaGrandeur

Email To: Ross.LaGrandeur@arcadis.com; Ryan.Brauchla@arcadis.com;

Project Description: WA-11060

City/State Collected: Seattle, WA

Phone: 509-438-9828
Fax:

Client Project # GP09BPNA.WA48

Lab Project # ARCABPWA-WA11060

Collected by (print): Ryan W Brauchla (RB)

Site/Facility ID # 4580 FAUNTLEROY WAY SW,

P.O. # GP09BPNA.WA48

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEXM 8260C 40mlAmb-HCl	NWTPHDX (no SGT) 40mlAmb-HCl-BT	NWTPHGX 40mlAmb HCl	trip blk BTEXM 8260C 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
GMW-1	Grab	GW	23	2-22-17	1140	6	X	X	X			-01
MW-1	"	GW	25	2-22-17	1345	6	X	X	X			-02
MW-2	"	GW	24	2-22-17	1220	6	X	X	X			-03
MW-3	"	GW	21	2-22-17	1200	6	X	X	X			-04
MW-5	"	GW	25	2-22-17	1230	6	X	X	X			-05
MW-6	"	GW	23	2-22-17	1120	6	X	X	X			-06
DUP-1	"	GW	—	2-22-17	—	6	X	X	X			-07
Trip Blank	—	~~GW~~	—	—	—	2				X		-08
		GW										
		GW										

Chain of Custody Page 1 of 1

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1891914
C173

Acctnum: ARCABPWA
Template: T120637
Prelogin: P588752
TSR: 110 - Brian Ford
PB:
Shipped Via:

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

Remarks:

pH _____ Temp _____
Flow _____ Other _____

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

Tracking # 7136 2669 6237

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Ryan W Brauchla	2-22-17	1600		2
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.1 °C Bottles Received: 42
				If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 2-23-17 Time: 0900
				Hold: Condition: NCF / OK

ANALYTICAL REPORT

September 14, 2017

Arcadis - Seattle, WA

Sample Delivery Group:	L932862
Samples Received:	08/30/2017
Project Number:	GP09BPNA.WA48
Description:	WA-11060
Site:	4580 FAUNTLEROY WAY SW, SEATTL
Report To:	Ross LaGrandeur 1100 Olive Way Suite 800 Seattle, WA 98101

Entire Report Reviewed By:

Brian Ford

Technical Service Representative

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

TABLE OF CONTENTS

GMW-1-08292017 L932862-01 GW

Collected by: Craig Peters | Collected date/time: 08/29/17 09:56 | Received date/time: 08/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1015573	1	09/01/17 04:18	09/01/17 04:18	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1015875	1	08/31/17 19:44	08/31/17 19:44	LRL
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1015261	1	08/31/17 00:54	09/01/17 09:58	LM
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1015261	1	08/31/17 00:54	09/04/17 16:32	LM

MW-1-08292017 L932862-02 GW

Collected by: Craig Peters | Collected date/time: 08/29/17 11:16 | Received date/time: 08/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1015573	1	09/01/17 04:40	09/01/17 04:40	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1015875	1	08/31/17 20:01	08/31/17 20:01	LRL
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1015261	1	08/31/17 00:54	09/01/17 10:14	LM
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1015261	1	08/31/17 00:54	09/04/17 16:48	LM

MW-2-08292017 L932862-03 GW

Collected by: Craig Peters | Collected date/time: 08/29/17 10:45 | Received date/time: 08/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1015573	10	09/06/17 19:09	09/06/17 19:09	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1015875	1	08/31/17 20:17	08/31/17 20:17	LRL
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1015261	1	08/31/17 00:54	09/01/17 10:30	LM
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1015261	1	08/31/17 00:54	09/04/17 17:04	LM

MW-3-08292017 L932862-04 GW

Collected by: Craig Peters | Collected date/time: 08/29/17 09:15 | Received date/time: 08/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1015573	1	09/01/17 05:24	09/01/17 05:24	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1015875	1	08/31/17 20:34	08/31/17 20:34	LRL
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1015261	1	08/31/17 00:54	09/01/17 10:46	LM
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1015261	1	08/31/17 00:54	09/04/17 17:20	LM

MW-5-08292017 L932862-06 GW

Collected by: Craig Peters | Collected date/time: 08/29/17 08:40 | Received date/time: 08/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1015573	1	09/01/17 05:46	09/01/17 05:46	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1015875	1	08/31/17 20:51	08/31/17 20:51	LRL
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1015261	1	08/31/17 00:54	09/04/17 17:36	LM
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1015261	5	08/31/17 00:54	09/05/17 18:52	TH

MW-6-08292017 L932862-07 GW

Collected by: Craig Peters | Collected date/time: 08/29/17 10:19 | Received date/time: 08/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1015573	1	09/01/17 06:08	09/01/17 06:08	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1015875	1	08/31/17 21:07	08/31/17 21:07	LRL
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1015261	2.1	08/31/17 00:54	09/01/17 11:19	LM

MW-9-08292017 L932862-08 GW

Collected by: Craig Peters
Collected date/time: 08/29/17 09:36
Received date/time: 08/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1015573	1	09/01/17 06:30	09/01/17 06:30	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1015875	1	08/31/17 21:24	08/31/17 21:24	LRL
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1015261	1	08/31/17 00:54	09/11/17 16:39	LM

MW-10-08292017 L932862-09 GW

Collected by: Craig Peters
Collected date/time: 08/29/17 11:48
Received date/time: 08/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1015573	1	09/01/17 06:52	09/01/17 06:52	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1015875	1	08/31/17 21:40	08/31/17 21:40	LRL
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1015261	1	08/31/17 00:54	09/11/17 16:56	LM

BD-11060-08292017 L932862-10 GW

Collected by: Craig Peters
Collected date/time: 08/29/17 00:00
Received date/time: 08/30/17 08:45

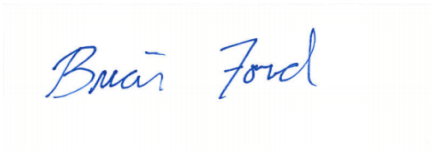
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1015573	10	09/06/17 19:47	09/06/17 19:47	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1015875	1	09/01/17 17:13	09/01/17 17:13	LRL
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1015261	1	08/31/17 00:54	09/01/17 12:08	LM
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1015261	1	08/31/17 00:54	09/04/17 17:52	LM

TB-11060-08292017 L932862-11 GW

Collected by: Craig Peters
Collected date/time: 08/29/17 07:45
Received date/time: 08/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1015875	1	09/01/17 13:07	09/01/17 13:07	LRL

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



Brian Ford
Technical Service Representative

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	2070		31.6	100	1	09/01/2017 04:18	WG1015573
(S) a,a,a-Trifluorotoluene(FID)	*89.4*			*77.0-122*		*09/01/2017 04:18*	WG1015573

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.331	1.00	1	08/31/2017 19:44	WG1015875
Toluene	0.480	J	0.412	1.00	1	08/31/2017 19:44	WG1015875
Ethylbenzene	2.45		0.384	1.00	1	08/31/2017 19:44	WG1015875
Total Xylenes	2.66	J	1.06	3.00	1	08/31/2017 19:44	WG1015875
Methyl tert-butyl ether	U		0.367	1.00	1	08/31/2017 19:44	WG1015875
(S) Toluene-d8	*97.9*			*80.0-120*		*08/31/2017 19:44*	WG1015875
(S) Dibromofluoromethane	*101*			*76.0-123*		*08/31/2017 19:44*	WG1015875
(S) a,a,a-Trifluorotoluene	*105*			*80.0-120*		*08/31/2017 19:44*	WG1015875
(S) 4-Bromofluorobenzene	*101*			*80.0-120*		*08/31/2017 19:44*	WG1015875

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	216		66.0	200	1	09/04/2017 16:32	WG1015261
Residual Range Organics (RRO)	104	J	82.5	250	1	09/01/2017 09:58	WG1015261
(S) o-Terphenyl	*105*			*52.0-156*		*09/01/2017 09:58*	WG1015261
(S) o-Terphenyl	*120*			*52.0-156*		*09/04/2017 16:32*	WG1015261

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	526		31.6	100	1	09/01/2017 04:40	WG1015573
(S) a,a,a-Trifluorotoluene(FID)	*98.2*			*77.0-122*		*09/01/2017 04:40*	WG1015573

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.331	1.00	1	08/31/2017 20:01	WG1015875
Toluene	U		0.412	1.00	1	08/31/2017 20:01	WG1015875
Ethylbenzene	U		0.384	1.00	1	08/31/2017 20:01	WG1015875
Total Xylenes	U		1.06	3.00	1	08/31/2017 20:01	WG1015875
Methyl tert-butyl ether	U		0.367	1.00	1	08/31/2017 20:01	WG1015875
(S) Toluene-d8	*105*			*80.0-120*		*08/31/2017 20:01*	WG1015875
(S) Dibromofluoromethane	*103*			*76.0-123*		*08/31/2017 20:01*	WG1015875
(S) a,a,a-Trifluorotoluene	*105*			*80.0-120*		*08/31/2017 20:01*	WG1015875
(S) 4-Bromofluorobenzene	*103*			*80.0-120*		*08/31/2017 20:01*	WG1015875

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	611		66.0	200	1	09/04/2017 16:48	WG1015261
Residual Range Organics (RRO)	450		82.5	250	1	09/01/2017 10:14	WG1015261
(S) o-Terphenyl	*108*			*52.0-156*		*09/01/2017 10:14*	WG1015261
(S) o-Terphenyl	*120*			*52.0-156*		*09/04/2017 16:48*	WG1015261

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	10000		316	1000	10	09/06/2017 19:09	WG1015573
(S) a,a,a-Trifluorotoluene(FID)	*97.9*			*77.0-122*		*09/06/2017 19:09*	WG1015573

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	27.4		0.331	1.00	1	08/31/2017 20:17	WG1015875
Toluene	10.7		0.412	1.00	1	08/31/2017 20:17	WG1015875
Ethylbenzene	90.9		0.384	1.00	1	08/31/2017 20:17	WG1015875
Total Xylenes	29.4		1.06	3.00	1	08/31/2017 20:17	WG1015875
Methyl tert-butyl ether	U		0.367	1.00	1	08/31/2017 20:17	WG1015875
(S) Toluene-d8	*88.2*			*80.0-120*		*08/31/2017 20:17*	WG1015875
(S) Dibromofluoromethane	*99.2*			*76.0-123*		*08/31/2017 20:17*	WG1015875
(S) a,a,a-Trifluorotoluene	*100*			*80.0-120*		*08/31/2017 20:17*	WG1015875
(S) 4-Bromofluorobenzene	*101*			*80.0-120*		*08/31/2017 20:17*	WG1015875

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	1070		66.0	200	1	09/04/2017 17:04	WG1015261
Residual Range Organics (RRO)	242	J	82.5	250	1	09/01/2017 10:30	WG1015261
(S) o-Terphenyl	*108*			*52.0-156*		*09/01/2017 10:30*	WG1015261
(S) o-Terphenyl	*114*			*52.0-156*		*09/04/2017 17:04*	WG1015261

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	1310		31.6	100	1	09/01/2017 05:24	WG1015573
(S) a,a,a-Trifluorotoluene(FID)	*87.4*			*77.0-122*		*09/01/2017 05:24*	WG1015573

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	3.87		0.331	1.00	1	08/31/2017 20:34	WG1015875
Toluene	0.434	J	0.412	1.00	1	08/31/2017 20:34	WG1015875
Ethylbenzene	3.82		0.384	1.00	1	08/31/2017 20:34	WG1015875
Total Xylenes	1.78	J	1.06	3.00	1	08/31/2017 20:34	WG1015875
Methyl tert-butyl ether	U		0.367	1.00	1	08/31/2017 20:34	WG1015875
(S) Toluene-d8	*99.4*			*80.0-120*		*08/31/2017 20:34*	WG1015875
(S) Dibromofluoromethane	*100*			*76.0-123*		*08/31/2017 20:34*	WG1015875
(S) a,a,a-Trifluorotoluene	*105*			*80.0-120*		*08/31/2017 20:34*	WG1015875
(S) 4-Bromofluorobenzene	*101*			*80.0-120*		*08/31/2017 20:34*	WG1015875

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	383		66.0	200	1	09/04/2017 17:20	WG1015261
Residual Range Organics (RRO)	238	J	82.5	250	1	09/01/2017 10:46	WG1015261
(S) o-Terphenyl	*115*			*52.0-156*		*09/04/2017 17:20*	WG1015261
(S) o-Terphenyl	*97.9*			*52.0-156*		*09/01/2017 10:46*	WG1015261

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	1810		31.6	100	1	09/01/2017 05:46	WG1015573
(S) a,a,a-Trifluorotoluene(FID)	*71.7*	J2		*77.0-122*		*09/01/2017 05:46*	WG1015573

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	7.48		0.331	1.00	1	08/31/2017 20:51	WG1015875
Toluene	1.60		0.412	1.00	1	08/31/2017 20:51	WG1015875
Ethylbenzene	6.01		0.384	1.00	1	08/31/2017 20:51	WG1015875
Total Xylenes	11.1		1.06	3.00	1	08/31/2017 20:51	WG1015875
Methyl tert-butyl ether	U		0.367	1.00	1	08/31/2017 20:51	WG1015875
(S) Toluene-d8	*107*			*80.0-120*		*08/31/2017 20:51*	WG1015875
(S) Dibromofluoromethane	*104*			*76.0-123*		*08/31/2017 20:51*	WG1015875
(S) a,a,a-Trifluorotoluene	*103*			*80.0-120*		*08/31/2017 20:51*	WG1015875
(S) 4-Bromofluorobenzene	*99.0*			*80.0-120*		*08/31/2017 20:51*	WG1015875

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	7040		330	1000	5	09/05/2017 18:52	WG1015261
Residual Range Organics (RRO)	432		82.5	250	1	09/04/2017 17:36	WG1015261
(S) o-Terphenyl	*123*			*52.0-156*		*09/05/2017 18:52*	WG1015261
(S) o-Terphenyl	*115*			*52.0-156*		*09/04/2017 17:36*	WG1015261

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	160		31.6	100	1	09/01/2017 06:08	WG1015573
(S) a,a,a-Trifluorotoluene(FID)	*98.9*			*77.0-122*		*09/01/2017 06:08*	WG1015573

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.331	1.00	1	08/31/2017 21:07	WG1015875
Toluene	U		0.412	1.00	1	08/31/2017 21:07	WG1015875
Ethylbenzene	U		0.384	1.00	1	08/31/2017 21:07	WG1015875
Total Xylenes	U		1.06	3.00	1	08/31/2017 21:07	WG1015875
Methyl tert-butyl ether	U		0.367	1.00	1	08/31/2017 21:07	WG1015875
(S) Toluene-d8	*106*			*80.0-120*		*08/31/2017 21:07*	WG1015875
(S) Dibromofluoromethane	*102*			*76.0-123*		*08/31/2017 21:07*	WG1015875
(S) a,a,a-Trifluorotoluene	*106*			*80.0-120*		*08/31/2017 21:07*	WG1015875
(S) 4-Bromofluorobenzene	*102*			*80.0-120*		*08/31/2017 21:07*	WG1015875

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	U		139	420	2.1	09/01/2017 11:19	WG1015261
Residual Range Organics (RRO)	183	J	173	525	2.1	09/01/2017 11:19	WG1015261
(S) o-Terphenyl	*63.0*			*52.0-156*		*09/01/2017 11:19*	WG1015261

Sample Narrative:

L932862-07 WG1015261: Dilution due to matrix impact during extraction procedure

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	52.9	J	31.6	100	1	09/01/2017 06:30	WG1015573
(S) a,a,a-Trifluorotoluene(FID)	*100*			*77.0-122*		*09/01/2017 06:30*	WG1015573

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	08/31/2017 21:24	WG1015875
Toluene	U		0.412	1.00	1	08/31/2017 21:24	WG1015875
Ethylbenzene	U		0.384	1.00	1	08/31/2017 21:24	WG1015875
Total Xylenes	U		1.06	3.00	1	08/31/2017 21:24	WG1015875
Methyl tert-butyl ether	U		0.367	1.00	1	08/31/2017 21:24	WG1015875
(S) Toluene-d8	*103*			*80.0-120*		*08/31/2017 21:24*	WG1015875
(S) Dibromofluoromethane	*103*			*76.0-123*		*08/31/2017 21:24*	WG1015875
(S) a,a,a-Trifluorotoluene	*105*			*80.0-120*		*08/31/2017 21:24*	WG1015875
(S) 4-Bromofluorobenzene	*101*			*80.0-120*		*08/31/2017 21:24*	WG1015875

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	115	J	66.0	200	1	09/11/2017 16:39	WG1015261
Residual Range Organics (RRO)	101	J	82.5	250	1	09/11/2017 16:39	WG1015261
(S) o-Terphenyl	*98.4*			*52.0-156*		*09/11/2017 16:39*	WG1015261

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	09/01/2017 06:52	WG1015573
(S) a,a,a-Trifluorotoluene(FID)	*99.4*			*77.0-122*		*09/01/2017 06:52*	WG1015573

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.331	1.00	1	08/31/2017 21:40	WG1015875
Toluene	U		0.412	1.00	1	08/31/2017 21:40	WG1015875
Ethylbenzene	U		0.384	1.00	1	08/31/2017 21:40	WG1015875
Total Xylenes	U		1.06	3.00	1	08/31/2017 21:40	WG1015875
Methyl tert-butyl ether	U		0.367	1.00	1	08/31/2017 21:40	WG1015875
(S) Toluene-d8	*107*			*80.0-120*		*08/31/2017 21:40*	WG1015875
(S) Dibromofluoromethane	*100*			*76.0-123*		*08/31/2017 21:40*	WG1015875
(S) a,a,a-Trifluorotoluene	*106*			*80.0-120*		*08/31/2017 21:40*	WG1015875
(S) 4-Bromofluorobenzene	*98.6*			*80.0-120*		*08/31/2017 21:40*	WG1015875

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	78.2	J	66.0	200	1	09/11/2017 16:56	WG1015261
Residual Range Organics (RRO)	126	J	82.5	250	1	09/11/2017 16:56	WG1015261
(S) o-Terphenyl	*96.7*			*52.0-156*		*09/11/2017 16:56*	WG1015261

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	12200		316	1000	10	09/06/2017 19:47	WG1015573
(S) a,a,a-Trifluorotoluene(FID)	*98.2*			*77.0-122*		*09/06/2017 19:47*	WG1015573

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	31.4		0.331	1.00	1	09/01/2017 17:13	WG1015875
Toluene	8.19		0.412	1.00	1	09/01/2017 17:13	WG1015875
Ethylbenzene	98.2		0.384	1.00	1	09/01/2017 17:13	WG1015875
Total Xylenes	30.5		1.06	3.00	1	09/01/2017 17:13	WG1015875
Methyl tert-butyl ether	U		0.367	1.00	1	09/01/2017 17:13	WG1015875
(S) Toluene-d8	*90.3*			*80.0-120*		*09/01/2017 17:13*	WG1015875
(S) Dibromofluoromethane	*95.8*			*76.0-123*		*09/01/2017 17:13*	WG1015875
(S) a,a,a-Trifluorotoluene	*105*			*80.0-120*		*09/01/2017 17:13*	WG1015875
(S) 4-Bromofluorobenzene	*98.3*			*80.0-120*		*09/01/2017 17:13*	WG1015875

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	1420		66.0	200	1	09/04/2017 17:52	WG1015261
Residual Range Organics (RRO)	423		82.5	250	1	09/01/2017 12:08	WG1015261
(S) o-Terphenyl	*103*			*52.0-156*		*09/01/2017 12:08*	WG1015261
(S) o-Terphenyl	*114*			*52.0-156*		*09/04/2017 17:52*	WG1015261

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.331	1.00	1	09/01/2017 13:07	WG1015875
Toluene	U		0.412	1.00	1	09/01/2017 13:07	WG1015875
Ethylbenzene	U		0.384	1.00	1	09/01/2017 13:07	WG1015875
Total Xylenes	U		1.06	3.00	1	09/01/2017 13:07	WG1015875
Methyl tert-butyl ether	U		0.367	1.00	1	09/01/2017 13:07	WG1015875
(S) Toluene-d8	*107*			*80.0-120*		*09/01/2017 13:07*	WG1015875
(S) Dibromofluoromethane	*96.9*			*76.0-123*		*09/01/2017 13:07*	WG1015875
(S) a,a,a-Trifluorotoluene	*110*			*80.0-120*		*09/01/2017 13:07*	WG1015875
(S) 4-Bromofluorobenzene	*99.1*			*80.0-120*		*09/01/2017 13:07*	WG1015875

Method Blank (MB)

(MB) R3247113-3 08/31/17 23:32

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-122*

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

(LCS) R3247113-1 08/31/17 22:26 • (LCSD) R3247113-2 08/31/17 22:48

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	5100	5090	92.7	92.5	72.0-134			0.160	20
(S) a,a,a-Trifluorotoluene(FID)				*102*	*101*	*77.0-122*				

Method Blank (MB)

(MB) R3246262-3 08/31/17 18:55

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
Ethylbenzene	U		0.384	1.00
Methyl tert-butyl ether	U		0.367	1.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	*99.6*			*80.0-120*
(S) Dibromofluoromethane	*123*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*96.5*			*80.0-120*
(S) 4-Bromofluorobenzene	*97.9*			*80.0-120*

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

(LCS) R3246262-1 08/31/17 17:19 • (LCSD) R3246262-2 08/31/17 17:36

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	25.0	29.2	27.5	117	110	69.0-123			5.98	20
Ethylbenzene	25.0	22.3	24.1	89.0	96.4	77.0-120			7.92	20
Toluene	25.0	22.5	23.5	90.2	94.0	77.0-120			4.18	20
Methyl tert-butyl ether	25.0	28.6	27.1	114	108	64.0-123			5.25	20
Xylenes, Total	75.0	66.5	71.0	88.7	94.7	77.0-120			6.55	20
(S) Toluene-d8				*98.1*	*101*	*80.0-120*				
(S) Dibromofluoromethane				*116*	*109*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*97.8*	*99.8*	*80.0-120*				
(S) 4-Bromofluorobenzene				*100*	*101*	*80.0-120*				

Method Blank (MB)

(MB) R3246279-1 09/01/17 06:18

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

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

(LCS) R3246279-2 09/01/17 08:06 • (LCSD) R3246279-3 09/01/17 08:22

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	750	915	923	122	123	50.0-150			0.950	20
Residual Range Organics (RRO)	750	761	756	101	101	50.0-150			0.640	20
(S) o-Terphenyl				*101*	*102*	*52.0-156*				

Guide to Reading and Understanding Your Laboratory Report

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

Abbreviations and Definitions

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

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.

ACCREDITATIONS & LOCATIONS

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

State Accreditations

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

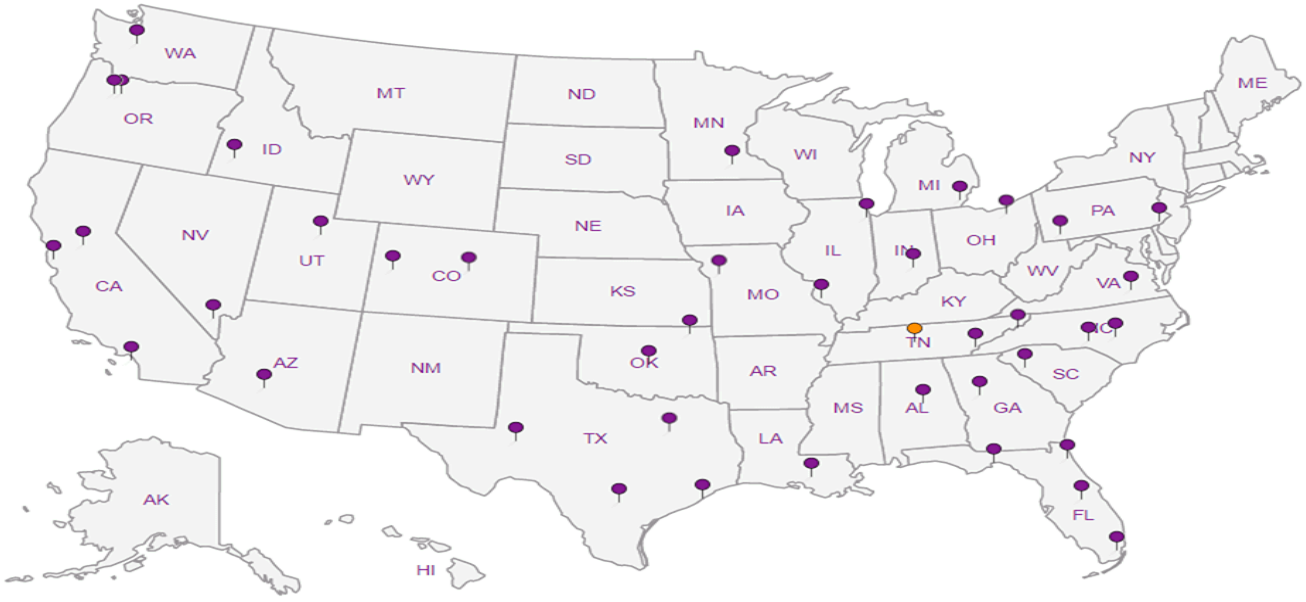
Third Party & Federal Accreditations

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

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

Our Locations

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



Arcadis - Seattle, WA

1100 Olive Way
Suite 800
Seattle WA 98101

Billing Information:
Attn: Accounts Payable
630 Plaza Dr., Ste. 600
Highlands Ranch, CO 80129

Pres
Chk

Report to: Ross LaGrandeur

Email To: Ross.LaGrandeur@arcadis.com; Ryan.Brauchla@arcadis.com;

Project Description: WA-11060

City/State Collected:

Phone: 509-438-9828
Fax:

Client Project # GP09BPNA.WA48

Lab Project # ARCABPWA-WA11060

Collected by (print): Craig Peters

Site/Facility ID # 4580 FAUNTLEROY WAY SW,

P.O. # GP09BPNA.WA48

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEXM 8260C 40mlAmb-HCl	NWTPHDX 40mlAmb-HCl-BT	NWTPHGX 40mlAmb HCl	trip blk BTEXM 8260C 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
GMW-1-08292017	G	GW	-	8/29/17	0956	8	X	X	X			-01
MW-1-08292017	G	GW	-		1116	8	X	X	X			-02
MW-2-08292017	G	GW	-		1045	8	X	X	X			-03
MW-3-08292017	G	GW	-		0915	8	X	X	X			-04
~~MW-4-08292017~~	~~G~~	~~GW~~	~~-~~			~~8~~	~~X~~	~~X~~	~~X~~			
MW-5-08292017	G	GW	-		0840	8	X	X	X			-05
MW-6-08292017	G	GW	-		1019	8	X	X	X			-06
MW-9-08292017	G	GW	-		0936	8	X	X	X			-07
MW-10-08292017	G	GW	-		1148	8	X	X	X			-08
		GW				8	X	X	X			

Chain of Custody Page 1 of 2

ESC LAB SCIENCES
a subsidiary of Accutest

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

L# 932862
C134

Acctnum: ARCABPWA
Template: T127211
Prelogin: P615083
TSR: 110 - Brian Ford
PB:
Shipped Via:

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

Remarks:

pH _____ Temp _____
Flow _____ Other _____

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

Tracking # 7466 1464 7796

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	8/29/17	1315	Shipped via FedEx	1xTB
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.3 MW °C Bottles Received: 72
				If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 8/30/17 Time: 0845
				Hold: Condition: NCF / OK

Arcadis - Seattle, WA

1100 Olive Way
Suite 800
Seattle WA 98101

Billing Information:
Attn: Accounts Payable
630 Plaza Dr., Ste. 600
Highlands Ranch, CO 80129

Pres Chk

Report to: Ross LaGrandeur

Email To: Ross.LaGrandeur@arcadis.com; Ryan.Brauchla@arcadis.com;

Project Description: WA-11060

City/State Collected:

Phone: 509-438-9828
Fax:

Client Project # GP09BPNA.WA48

Lab Project # ARCABPWA-WA11060

Collected by (print):

Site/Facility ID # 4580 FAUNTLEROY WAY SW,

P.O. # GP09BPNA.WA48

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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

Date Results Needed

Quote #

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEXM 8260C 40mlAmb-HCl	NWTPHDX 40mlAmb-HCl-BT	NWTPHGX 40mlAmb HCl	trip blk BTEXM 8260C 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
BD-11060-08292017	G	GW	-	8/29/17	-	8	X	X	X			-09
TB-11060-08292017	G	GW	-	1	0745	1				X		-10

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

ESC LAB SCIENCES
a subsidiary of Accutest

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

L# 932862

Table #

Acctnum: ARCABPWA

Template: T127211

Prelogin: P615083

TSR: 110 - Brian Ford

PB:

Shipped Via:

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

Remarks:

pH _____ Temp _____

Flow _____ Other _____

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

Tracking # 7466 1464 7796

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	8/29/17	1315	Shipped Via FedEx
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 1.3 °C Bottles Received: 72

Date: 8/30/17 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ATTACHMENT C

PSCAA Permit No 29664

pscleanair.org
Puget Sound Clean Air Agency

Puget Sound Clean Air Agency

Notice of Construction No. **10813**

HEREBY ISSUES AN ORDER OF APPROVAL TO CONSTRUCT, INSTALL, OR ESTABLISH

Registration No. **29664**

Date

Soil remediation project at the former Atlantic Richfield Company (ARCO) Facility No. 11060. The project includes an air sparge and soil vapor extraction (AS/SVE) treatment unit equipped with a catalytic oxidizer.

APPLICANT

Arti Patel
ARCADIS U.S., Inc
2929 Briarpark Drive, Suite 300
Houston, TX 77042

OWNER

Arti Patel
ARCADIS U.S., Inc
2929 Briarpark Drive, Suite 300
Houston, TX 77042

INSTALLATION ADDRESS

Former Arco #11060 Remediation, 4580 Fauntleroy Way SW, Seattle, WA 98126-2740

THIS ORDER IS ISSUED SUBJECT TO THE FOLLOWING RESTRICTIONS AND CONDITIONS

1. Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Clean Air Agency to the applicant to install or establish the equipment, device or process described hereon at the INSTALLATION ADDRESS in accordance with the plans and specifications on file in the Engineering Division of the Puget Sound Clean Air Agency.

2. This approval does not relieve the applicant or owner of any requirement of any other governmental agency.

3. All vapors from the remediation extraction system shall be vented to a catalytic oxidizer until the criteria in Condition No. 8 of this Order of Approval have been met.

4. The maximum influent flow rate to the catalytic oxidizer shall not exceed 120 standard cubic feet per minute.

5. The control efficiency of the catalytic oxidizer shall be maintained at a minimum of 98% by weight when the TPH influent concentration to the catalytic oxidizer is greater than or equal to 200 ppmv.

6. The catalyst inlet temperature shall be at least 625 degrees Fahrenheit.

7. To determine compliance with Conditions 4, 5 and 6 of this Order of Approval, the owner or operator shall conduct monthly monitoring on the catalytic oxidizer as specified below:

   a. Measure the catalyst inlet temperature;

   b. Analyze inlet gas stream to determine the flow rate and the concentration of total petroleum hydrocarbon (TPH);

   c. Analyze exhaust gas to determine the flow rate and the concentration of TPH; and

   d. Calculate the control efficiency based on the inlet and exhaust gas analysis.

Initial monitoring shall be performed no later than 15 days after start-up of the catalytic oxidizer. Gas concentration shall be determined using a photoionization detector (PID) or other equivalent method approved by the Agency.

8. The owner or operator may operate the air sparge and soil vapor extraction treatment unit without the catalytic oxidizer when sampling data for two or more consecutive months demonstrates the following criteria are met:

   a. The pre-control total petroleum hydrocarbon (TPH) emissions are less than 2.5 pounds per day; and

   b. The pre-control benzene emissions are less than 0.018 pounds per day.

   Written approval from the Puget Sound Clean Air Agency must be obtained prior to removal of the catalytic oxidizer. Approval is based on review of monitoring data submitted in writing to the Agency, including measured flow rate and concentrations of TPH and benzene and an estimate of daily emissions for TPH and benzene.

9. The owner or operator shall maintain the following records on-site for at least two years and shall make them available to Agency personnel upon request:

   a. All monitoring results showing the concentration of TPH at the inlet and outlet to the catalytic oxidizer, including the date monitoring was conducted;

   b. Calculations showing the control efficiency of the catalytic oxidizer based on monitoring results;

   c. All monitoring results showing the pre-control concentration of TPH and benzene are below the criteria in Condition 8 of this Order of Approval, including the date the monitoring was conducted;

   d. All measurements of the influent flow rate to the catalytic oxidizer; and

   e. All measurements of the catalyst inlet temperature.

10. The owner or operator shall report any non-compliance with Condition No. 5 of this Order of Approval to the Agency no later than 30 days after it is first discovered. The owner or operator shall detail the corrective action taken and include the data showing the exceedance as well as the time of occurrence in the submittal.

APPEAL RIGHTS

Pursuant to Puget Sound Clean Air Agency's Regulation I, Section 3.17 and RCW 43.21B.310, this Order may be appealed to the Pollution Control Hearings Board (PCHB). To appeal to the PCHB, a written notice of appeal must be filed with the PCHB and a copy served upon Puget Sound Clean Air Agency within 30 days of the date the applicant receives this Order.

Margaret L. Corbin
Reviewing Engineer

Carole Cenci
Compliance Manager

Arcadis U.S., Inc.

1100 Olive Way

Suite 800

Seattle, Washington 98101

Tel 206 325 5254

Fax 206 325 8218

www.arcadis.com