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Subject:

Former BP Facility No. WA-11060 (NW2463) - 2019 Annual Site Status Report

ENVIRONMENT

Date:

March 16, 2020

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 2019. Results and findings from work completed at the Site are summarized below and in the attached data tables and figures.

Contact

Ross LaGrandeur

Current Site Use: Active Station

Phone:

206-726-4754

2019 Groundwater Monitoring Summary

Groundwater Monitoring Schedule: Quarterly

Email:

Ross.LaGrandeur

Sample Methodology:

@arcadis.com

First Quarter:	Low flow purge and sample
Second Quarter:	Low flow purge and sample/No purge sampling
Third Quarter:	Low flow purge and sample
Fourth Quarter:	Low flow purge and sample/No purge sampling

Our ref:

30014464

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

Fourth Quarter 0.05 foot (GMW-1) – 11/25/2019

Site Constituents of Concern (COCs) 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-12;
Second Quarter (Q2) – MW-12;
Third Quarter (Q3) – GMW-1;
Fourth Quarter (Q4) – MW-12
- TPH as diesel range organics (DRO):
Q2 – GMW-1, MW-5;
Q3 – GMW-1
Q4 – MW-12.
- TPH as heavy oil range organics (HO):
Q4 – MW-2;
- Benzene:
Q2 – MW-2(duplicate).

Observed Depth to Water per Event:

First Quarter: 13.90 (MW-6) to 27.33 (MW-5) feet below top of casing (btoc) – 2/20/2019

Second Quarter: 23.78 (MW-9) to 27.45 (EW-3) feet btoc – 5/13/2019

Third Quarter: 25.09 (MW-9) to 27.98 (EW-3) feet btoc – 8/27/2019

Fourth Quarter: 24.70 (MW-3) to 28.19 (MW-12) feet btoc – 11/25/2019

Groundwater Elevations and Flow Direction:

<u>Event</u>	<u>Elevation Range</u>	<u>Interpreted Groundwater Flow Direction</u>
First Quarter:	240.08 (MW-9) to 252.07 (MW-6) feet above North American Vertical Datum 88 (NAVD 88)	Northeast

Second Quarter: 239.55 (MW-9) to 241.45 (MW-4) Northeast
feet above NAVD 88

Third Quarter: 238.26 (MW-9) to 241.27 (MW-4) Northeast
feet above NAVD 88

Fourth Quarter: 237.75 (MW-9) to 241.30 (MW-3) Northeast
feet above NAVD 88

Groundwater elevations from certain monitoring wells have been determined to be anomalous by quarter as follows: First quarter - MW-4, MW-6 and GMW-1; Second quarter - MW-4 and MW-12; Third and fourth quarters - MW-4 had anomalous data. When compared to historical data, including the data collected from all four quarter events in 2019, MW-4 continued to have anomalous data. The validity of this data cannot be confirmed; therefore, these wells were not used in groundwater contour development. Anomalous data could be due to the potential decrease in average groundwater elevation over the past three years. When elevations are evaluated across the Site, it appears that average water levels have dropped approximately 2 feet. This has resulted in limited water columns in certain monitoring wells, which can create anomalous groundwater elevations and/or gradient flow directions. Groundwater elevations at this Site will be further evaluated during the next field event.

2019 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 2019: 4913 hours
Operational Percentage in 2019: 53.58 percent
Permit Conditions Met: Yes, Puget Sound Clean Air Agency (PSCAA)

Calculated Mass Removal Totals:

<u>Calendar Year (2019)</u>	<u>Cumulative</u>
VOC: 560.49 pounds (lbs)	VOC: 2689.77 lbs
GRO: No Analytical Samples Collected in 2019	GRO: 1584.1 lbs

Note:

WA-11060

March 16, 2020

- System operational data is presented in Table 4
- Estimated volatile organic compound (VOC) mass removed using photoionization detector (PID) field measurements.
- Air Sparge portion of system not used in 2019.

If you have any questions, please contact Ross LaGrandeur at 206-726-4754 or Ross.LaGrandeur@arcadis.com.

Sincerely,

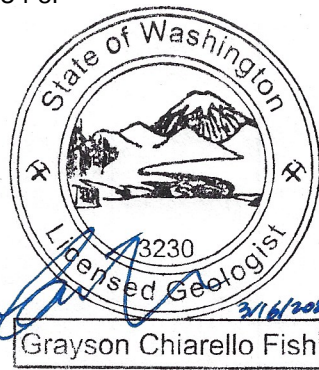
Arcadis U.S., Inc.



Ross LaGrandeur
Project Manager

Copies:

Richard Wright, Property Owner



Grayson Chiarello Fish

Grayson Fish, LG
Licensed Geologist

Enclosures:

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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	(NAPL)	268.20	26.28	0.60	242.40	--	--	--	--	--	--	--	--	--	--	--	--
EW-1	10/25/2018	(NS)	268.20	27.52	0.0	240.68	--	--	--	--	--	--	--	--	--	--	--	--
EW-1	2/20/2019	(NS)	268.20	26.85	0.0	241.35	--	--	--	--	--	--	--	--	--	--	--	--
EW-1	5/14/2019	(NS)	268.20	27.18	0.0	241.02	--	--	--	--	--	--	--	--	--	--	--	--
EW-1	8/27/2019	(NS)	268.20	27.83	0.0	240.37	--	--	--	--	--	--	--	--	--	--	--	--
EW-1	11/25/2019	(NS)	268.20	27.84	0.0	240.36	--	--	--	--	--	--	--	--	--	--	--	--
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-2	10/25/2018	(NS)	267.93	27.30	0.0	240.62	--	--	--	--	--	--	--	--	--	--	--	--
EW-2	2/20/2019	(NS)	267.93	26.52	0.0	241.41	--	--	--	--	--	--	--	--	--	--	--	--
EW-2	5/14/2019	(NS)	267.93	26.96	0.0	240.97	--	--	--	--	--	--	--	--	--	--	--	--
EW-2	8/27/2019	(NS)	267.93	27.65	0.0	240.28	--	--	--	--	--	--	--	--	--	--	--	--
EW-2	11/25/2019	(NS)	267.93	27.81	0.0	240.12	--	--	--	--	--	--	--	--	--	--	--	--
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	(NAPL)	268.50	26.75	0.76	242.36	--	--	--	--	--	--	--	--	--	--	--	--

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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
EW-3	10/25/2018	(NS)	268.50	27.81	0.0	240.69	--	--	--	--	--	--	--	--	--	--	--	--
EW-3	2/20/2019	(NS)	268.50	26.93	0.0	241.57	--	--	--	--	--	--	--	--	--	--	--	--
EW-3	5/14/2019	(NS)	268.50	27.45	0.0	241.05	--	--	--	--	--	--	--	--	--	--	--	--
EW-3	8/27/2019	(NS)	268.50	27.98	0.0	240.52	--	--	--	--	--	--	--	--	--	--	--	--
EW-3	11/25/2019	(NS)	268.50	27.98	0.0	240.52	--	--	--	--	--	--	--	--	--	--	--	--
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	--
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	--	--	--	--
GMW-1	3/13/2018	(NP)	265.63	23.20	0.0	242.43	2,500	99.7(J)	<250	<1.00	<1.00	0.394(J)	<3.00	<1.00	--	--	--	--
GMW-1	10/25/2018	(LFP)	265.63	26.22	0.06	239.45	4,200	9,050	346(J)	<1.00	<1.00	9.58	12.8	<1.00	<0.0100	<1.00	16.2	14.5
GMW-1	10/25/2018	(Dup)(LFP)	265.63	26.22	0.06	239.45	3,760	8,430	306	<1.00	<1.00	12.4	13.2	<1.00	<0.0100	<1.00	12.3	9.21
GMW-1	2/20/2019	(LFP)	265.63	24.34	0.0	241.29	773(B)	143(J)	<83.3	<0.331	<0.412	<0.384	<1.06	<0.367	<0.00240	<0.361	<1.90	<1.90
GMW-1	5/13/2019	(LFP)	265.63	25.28	0.0	240.35	985	771	<83.3	<0.331	<0.412	2.36	4.18	<0.367	<0.00240	<0.361	<1.90	--
GMW-1	8/27/2019	(LFP)	265.63	26.68	0.0	238.95	2,750	777	<167	<0.0896	<0.412	12.0	13.9	<0.102	<0.00240	<0.108	8.01	--
GMW-1	8/27/2019	(DUP)(LFP)	265.63	26.68	0.0	238.95	2,570	785	<167	<0.0896	<0.412	11.5	13.1	<0.102	<0.00240	<0.108	9.72	--
GMW-1	11/25/2019	(NS)	265.63	26.95	0.05	238.72	--	--	--	--	--	--	--	--	--	--	--	--
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	--	--	--	--

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WA-11060
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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	6/8/1998		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	--	--	--	--
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	--	--	--	--
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	--	--	--	--

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	3/13/2018	(NP)	267.43	25.35	0.0	242.08	298(B)	369	352	<1.00	<1.00	<1.00	<3.00	<1.00	--	--	--	--
MW-1	10/25/2018	(NS)	267.43	26.43	0.0	240.99	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	2/20/2019	(NS)	267.43	26.37	0.0	241.06	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	2/22/2019	(NP)	267.43	26.33	0.0	241.10	<31.6	369	322	<0.331	<0.412	<0.384	<1.06	<0.367	<0.00240	<0.361	<1.90	<1.90
MW-1	5/14/2019	(NP)	267.43	26.70	0.0	240.73	40.0(J)	271	220(J)	<0.331	<0.412	<0.384	<1.06	<0.367	<0.00240	<0.361	<1.90	<1.90
MW-1	8/27/2019	(NS)	267.43	27.20	0.0	240.23	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	11/25/2019	(NS)	267.43	27.21	0.0	240.22	--	--	--	--	--	--	--	--	--	--	--	--
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	--	--	--	--
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	--	--	--	--

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	12/18/2005	(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	--	--	--	--
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-2	3/13/2018	(NP)	266.69	24.45	0.0	242.24	3,110	2,360	742	7.65	11.5	90.0	14.6	<1.00	--	--	--	--
MW-2	3/13/2018	(Dup)(NP)	266.69	24.45	0.0	242.24	5,340	693	247(B J J3)	7.00	13.7	88.4	14.5	<1.00	--	--	--	--
MW-2	10/25/2018	(LFP)	266.69	26.85	0.0	239.84	171(B)	788	444	<1.00	<1.00	<1.00	<3.00	<1.00	<0.0100	<1.00	25.5	0.623(J)
MW-2	2/20/2019	(LFP)	266.69	25.27	0.0	241.42	85.8(BJ)	199(J)	175(J)	<0.331	<0.412	<0.384	<1.06	<0.367	<0.00240	<0.361	<1.90	<1.90
MW-2	2/20/2019	(DUP)(LFP)	266.69	25.27	0.0	241.42	<31.6	--	--	<0.331	<0.412	<0.384	<1.06	<0.367	--	<0.361	--	--
MW-2	5/14/2019	(LFP)	266.69	26.20	0.0	240.49	40.0(J)	250	197(J)	1.45	<0.412	<0.384	<1.06	<0.367	<0.00240	<0.361	<1.90	--
MW-2	5/14/2019	(DUP)(LFP)	266.69	26.20	0.0	240.49	<31.6	284	284	5.16	<0.412	<0.384	<1.06	<0.367	<0.00240	<0.361	2.20(J)	--
MW-2	8/27/2019	(NS)	266.69	27.30	0.0	239.39	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	11/26/2019	(NP)	266.69	27.29	0.0	239.40	256(B)	414	706	0.883(J)	<0.412	<0.384	<1.06	<0.367	<0.00240	<0.361	79.2	<1.90
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	--	--	--	--	--

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	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	--	--	--	--	--	--	--	--	--	--	--	--
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	--

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	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-3	3/13/2018	(NP)	266.00	23.22	0.0	242.78	52.8(B J)	79.1(J)	115(J)	<1.00	<1.00	<1.00	<3.00	<1.00	--	--	--	--
MW-3	10/25/2018	(LFP)	266.00	26.11	0.0	239.89	35.6(B J)	69.3(J)	<250	<1.00	<1.00	<1.00	<3.00	<1.00	<0.0100	<1.00	0.868(B J)	0.602(J)
MW-3	2/20/2019	(NS)	266.00	23.86	0.0	242.14	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	5/14/2019	(LFP)	266.00	25.42	0.0	240.58	<31.6	71.9(J)	101(J)	<0.331	<0.412	<0.384	<1.06	<0.367	<0.00240	<0.361	<1.90	--
MW-3	8/27/2019	(NS)	266.00	26.38	0.0	239.62	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	11/25/2019	(LFP)	266.00	24.70	0.0	241.30	63.6(BJ)	<66.7	276	<0.331	<0.412	<0.384	<1.06	<0.367	<0.00245	<0.361	2.06(J)	--
MW-3	11/25/2019	(LFP)(Dup)	266.00	24.70	0.0	241.30	47.9(BJ)	66.9(J)	98.7(J)	<0.331	<0.412	<0.384	<1.06	<0.367	<0.00242	<0.361	<1.90	--
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	--	--	--	--	--	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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	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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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-4	3/13/2018	(NS)	267.78	24.74	0.48	243.42	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	10/25/2018	(NS)	267.78	26.76	0.28	241.24	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	2/20/2019	(NS)	267.78	24.80	0.0	242.98	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	5/14/2019	(NS)	267.78	26.33	0.0	241.45	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	8/27/2019	(NS)	267.78	26.51	0.0	241.27	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	11/25/2019	(NS)	267.78	26.51	0.0	241.27	--	--	--	--	--	--	--	--	--	--	--	--
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	--	--	--	--

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	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	--	--	--	--
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

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	5/13/2014	(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)	--	--	--	--
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-5	3/13/2018	(NP)	268.46	26.39	0.0	242.07	356(B)	1,440	216(J)	<1.00	<1.00	0.544(J)	<3.00	<1.00	--	--	--	--
MW-5	10/25/2018	(NS)	268.46	27.13	0.0	241.32	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	2/20/2019	(NS)	268.46	27.33	0.0	241.13	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	5/14/2019	(NP)	268.46	27.24	0.0	241.22	54.5(J)	1,120	122(J)	0.403(J)	<0.412	<0.384	5.45	<0.367	<0.00240	<0.361	--	--
MW-5	8/27/2019	(NS)	268.46	27.40	0.0	241.06	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	11/25/2019	(NS)	268.46	27.55	0.0	240.91	--	--	--	--	--	--	--	--	--	--	--	--
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	--	--	--	--	--
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	--	--	--	--	--

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	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-6	3/13/2018	(NP)	265.97	23.04	0.0	242.93	40.0(B J)	<200	<250	<1.00	<1.00	<1.00	<3.00	<1.00	--	--	--	--
MW-6	10/25/2018	(NP)	265.97	26.28	0.0	239.69	<100	73.4(J)	<250	<1.00	<1.00	<1.00	<3.00	<1.00	<0.0100	<1.00	<2.00	<2.00
MW-6	2/20/2019	(NS)	265.97	13.90	0.0	252.07	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	2/22/2019	(LFP)	265.97	14.14	0.0	251.83	<31.6	76.5(J)	214(J)	<0.331	<0.412	<0.384	<1.06	<0.367	<0.00240	<0.361	<1.90	<1.90
MW-6	5/14/2019	(NS)	265.97	25.51	0.0	240.46	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	8/27/2019	(LFP)	265.97	26.73	0.0	239.24	<31.6	79.6(J)	85.9(J)	<0.0896	<0.412	<0.158	<1.06(J4)	<0.367	<0.00245	<1.00	3.18(J)	--
MW-6	11/26/2019	(NS)	265.97	26.86	0.0	239.11	--	--	--	--	--	--	--	--	--	--	--	--
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	--	--	--	--
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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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	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-9	3/13/2018	(NS)	263.35	21.78	0.0	241.57	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	10/25/2018	(LFP)	263.35	24.61	0.0	238.74	78.3(BJ)	217	140(J)	<1.00	<1.00	<1.00	<3.00	<1.00	<0.0101	<1.00	0.299(B J)	<2.00
MW-9	2/20/2019	(LFP)	263.35	23.27	0.0	240.08	36.7(BJ)	116(J)	120(J)	<0.331	<0.412	<0.384	<1.06	<0.367	<0.00240	<0.361	<1.90	<1.90
MW-9	5/13/2019	(LFP)	263.35	23.78	0.0	239.57	<31.6	220	107(J)	<0.331	<0.412	<0.384	<1.06	<0.367	<0.00240	<0.361	<1.90	--
MW-9	8/27/2019	(LFP)	263.35	25.09	0.0	238.26	<31.6	107(J)	98.9(J)	<0.0896	<0.412	<0.158	<0.316	<0.102	<0.00240	<0.108	<1.90	--
MW-9	11/26/2019	(LFP)	263.35	25.60	0.0	237.75	47.0(BJ)	108(J)	227(J)	<0.0896	<0.412	<0.158	<0.316	<0.102	<0.00240	<0.108	<1.90	--
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	--	--	--	--
MW-11	10/25/2018	(LFP)	266.38	26.40	0.0	239.98	170(B)	343	419	<1.00	<1.00	<1.00	<3.00	<1.00	<0.0100	<1.00	1.09(B J)	0.582(J)
MW-11	2/20/2019	(LFP)	266.38	25.49	0.0	240.89	132(B)	354	466	<0.331	<0.412	<0.384	<1.06	1.04	<0.00240	<0.361	<1.90	<1.90
MW-11	5/13/2019	(LFP)	266.38	25.99	0.0	240.39	40.1(J)	423	308	<0.331	<0.412	<0.384	<1.06	0.674(J)	<0.00240	<0.361	<1.90	--
MW-11	8/27/2019	(LFP)	266.38	26.83	0.0	239.55	<31.6	227	295	<0.0896	<0.412	<0.158	<0.316	0.818	<0.00240	<0.108	2.51 (J)	--
MW-11	11/25/2019	(LFP)	266.38	27.13	0.0	239.25	137(B)	220	408	<0.0896	<0.412	<0.158	<0.316	0.771	<0.00240	<0.108	<1.90	--
MW-12	10/25/2018	(LFP)	266.51	27.39	0.0	239.12	867	705	189(J)	1.17	<1.00	<1.00	<3.00	<1.00	<0.0100	<1.00	1.00(B J)	<2.00
MW-12	2/20/2019	(LFP)	266.51	26.21	0.0	240.30	3,370	486	206(J)	4.91	<0.412	2.81	2.54(J)	<0.367	<0.00240	<0.361	<1.90	<1.90
MW-12	5/13/2019	(LFP)	266.51	26.78	0.0	239.73	1,320	394	198(J)	3.79	<0.412	0.457(J)	<1.06	<0.367	<0.00240	<0.361	<1.90	--
MW-12	8/27/2019	(LFP)	266.51	27.82	0.0	238.69	260	404	192(J)	3.11	<0.412	0.705	0.404(J)	<0.102	<0.00245	<0.108	<1.90	--
MW-12	11/25/2019	(NP)	266.51	28.19	0.0	238.32	855	349	183(J)	2.79	<0.412	1.06	0.464(J)	<0.102	<0.00240	<0.108	25.8	<1.90
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	--	--	--	--

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	9/28/1999		--	--	--	--	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	--	--	--	--
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	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
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

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

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
B = The same analyte is found in the associated blank
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
Monitoring wells MW-6, MW-11, and MW-12 were surveyed on 10/25/2018 by Otak
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

BOLD Concentration greater than the MTCA Method A cleanup level
BOLD Concentration greater than the MTCA Method A Cleanup level but is below method detection limit (MDL)

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			--	0.1	--	--	--	--	--	--	--	--	160	0.1
GMW-1	5/7/2015	(NP)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	1.8	4.0	7.4	13.2	<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	<0.030	0.264	0.04861
GMW-1	6/6/2016	(NP)	--	--	--	--	--	--	--	0.53	1.1	2.2	3.83	--
GMW-1	9/12/2016	(NP)	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	1.4	2.8	6.8	11	<0.00717
GMW-1	9/12/2016	(NP), (DUP)	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	1.4	2.8	7.1	11.3	<0.00717
GMW-1	2/20/2019	(LFP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	0.0121(J)	0.024(J)	<0.0198	<0.046	<0.007783
GMW-1	5/13/2019	(LFP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	0.0625(J)	0.0189(J)	0.377	0.4584	<0.007783
GMW-1	8/27/2019	(LFP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	0.0389(J)	0.140(J)	0.642	0.8209	<0.007783
GMW-1	8/27/2019	(LFP)(DUP)	<0.00410(J4)	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	0.0383(J)	0.134(J)	0.583	0.7553	<0.007783
GMW-1	11/25/2019	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
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	<0.031	0.065	0.04032
MW-1	3/2/2016	(NP)	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	0.12	0.20	0.40	0.72	<0.008305
MW-1	6/6/2016	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	9/12/2016	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	2/22/2019	(NP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	0.0129(J)	0.0207(J)	<0.0198	<0.0435	<0.007783
MW-1	5/14/2019	(NP)	<0.00820	<0.0232	<0.00424	<0.0272	<0.0216	<0.00792	<0.0296	0.0309(J)	0.0414(J)	0.110(J)	0.1823	<0.015566
MW-1	8/27/2019	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	11/25/2019	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	5/7/2015	(NP)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	1.1	0.35	4.3	5.75	<0.00755
MW-2	3/2/2016	(NP)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	1.7	0.34	4.3	6.34	<0.00755
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-2	9/12/2016	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	2/20/2019	(LFP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	0.00849(J)	0.0174(J)	<0.0198	<0.03579	<0.007783
MW-2	2/20/2019	(LFP), (DUP)	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	5/14/2019	(LFP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	0.0214(J)	0.0228(J)	0.0593(J)	0.1035	<0.007783
MW-2	5/14/2019	(LFP), (DUP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	0.0214(J)	0.0198(J)	0.0781(J)	0.1193	<0.007783
MW-2	8/27/2019	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	11/26/2019	(NP)	0.00684(BJ)	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	0.0255(BJ)	0.0174(BJ)	0.0680(BJ)	0.1109	<0.008262
MW-3	5/7/2015	(NP)	0.016 J	0.015 J	0.025 J	<0.010	0.018 J	<0.010	0.016 J	0.76	0.041	<0.030	0.816	0.02188
MW-3	3/2/2016	(NP)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.030	<0.025	<0.00755
MW-3	6/6/2016	(NP)	--	--	--	--	--	--	--	0.032 J	<0.010	<0.031	0.05	--
MW-3	9/12/2016	(NP)	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	0.19	<0.0095	<0.029	0.20925	<0.00717
MW-3	2/20/2019	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	5/14/2019	(LFP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	<0.00821	<0.00902	0.0335(J)	<0.0421	<0.007783

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			--	0.1	--	--	--	--	--	--	--	--	160	0.1
MW-3	8/27/2019	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	11/25/2019	(NS)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	<0.00821	<0.00902	<0.0198	<0.0185	<0.007783
MW-3	11/25/2019	(NS)(Dup)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	<0.00821	<0.00902	<0.0198	<0.0185	<0.007783
MW-4	5/14/2019	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	8/27/2019	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	11/25/2019	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	5/7/2015	(NP)	<0.010	<0.010	0.014 J	<0.010	<0.010	<0.010	<0.010	3.0	2.5	11	16.5	0.00845
MW-5	3/2/2016	(NP)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	2.7	2.8	9.9	15.4	<0.00755
MW-5	6/6/2016	(NP)	--	--	--	--	--	--	--	2.3	2.3	7.3	11.9	--
MW-5	9/12/2016	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	2/20/2019	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	5/14/2019	(NP)	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	8/27/2019	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	11/25/2019	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	5/7/2015	(NP)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.011 J	0.012 J	<0.030	0.038	<0.00755
MW-6	3/2/2016	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	6/6/2016	(NP)	--	--	--	--	--	--	--	<0.010	<0.010	<0.031	<0.026	--
MW-6	9/12/2016	(NP)	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.028	<0.0235	<0.00717
MW-6	2/22/2019	(LFP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	0.00929(J)	0.0137(J)	0.221(J)	0.24399	<0.007783
MW-6	5/14/2019	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	8/27/2019	(LFP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	<0.00821	<0.00902	0.0249(B,J)	<0.0335	<0.007783
MW-6	11/26/2019	(LFP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	<0.00821	<0.00902	0.0249(B,J)	<0.0335	<0.007783
MW-9	5/7/2015	(NP)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.015 J	<0.031	0.036	<0.00755
MW-9	3/2/2016	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	6/6/2016	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	9/12/2016	(NP)	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.028	<0.0235	<0.00717
MW-9	2/20/2019	(LFP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	<0.00821	0.0150(J)	<0.0198	<0.029005	<0.007783
MW-9	5/13/2019	(LFP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	0.0162(J)	0.0140(J)	<0.0198	<0.0401	<0.007783
MW-9	8/27/2019	(LFP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	<0.00821	<0.00902	0.0350(B,J)	<0.04362	<0.007783
MW-9	11/26/2019	(LFP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	<0.00821	<0.00902	0.0350(B,J)	<0.04362	<0.007783
MW-10	5/7/2015	(NP)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.23	0.35	0.77	1.35	<0.00755
MW-10	3/2/2016	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	6/6/2016	(NS)	--	--	--	--	--	--	--	--	--	--	--	--

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			--	0.1	--	--	--	--	--	--	--	--	160	0.1
MW-10	9/12/2016	(NP)	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.029	<0.024	<0.00717
MW-10	2/20/2019	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	5/14/2019	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	8/27/2019	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	11/25/2019	(NS)	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	2/20/2019	(LFP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	0.00930 (J)	<0.00902	<0.0198	<0.02371	<0.007783
MW-11	5/13/2019	(LFP)	0.00965(J)	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	0.0258(J)	0.0121(J)	0.165(J)	0.2029	0.008543
MW-11	8/27/2019	(LFP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	0.0102(J)	0.0107(J)	0.169(B,J)	0.1899	<0.007783
MW-11	11/25/2019	(LFP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	<0.00821	0.0104(J)	0.141(J)	<0.1556	<0.007783
MW-12	2/20/2019	(LFP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	0.897	0.782	4.81	6.489	<0.007783
MW-12	5/13/2019	(LFP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	0.328	0.0239(J)	0.463	0.8149	<0.007783
MW-12	8/27/2019	(LFP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	0.235(J)	0.0224(J)	0.257(B)	0.5144	<0.007783
MW-12	11/25/2019	(NP)	<0.00410	<0.0116	<0.00212	<0.0136	<0.0108	<0.00396	<0.0148	0.244(J)	0.0269(J)	0.659	0.9299	<0.007783

Notes:

-- = Not analyzed/not applicable

NP = No purge sample

< = Analytical result is less than reporting limit shown

NS = Not sampled for polycyclic aromatic hydrocarbons (PAHs)

DUP = Duplicate sample

B = The same analyte is found in the associated blank

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.

Total 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

BOLD Concentration greater than the MTCA Method A Cleanup level but is below method detection limit (MDL)

Table 3
Select Volatile Organic Compounds 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	Acetaldehyde	Acrolein	1,3 Butadiene	Chloroform	Ethanol	Hexane	Vinyl Chloride	1, 1-Dichloroethene (1,1-DCE)	cis-1,2-Dichloroethene (cis-1,2-DCE)	trans-1,2-Dichloroethene (trans-1,2-DCE)	1,1,2-Trichloroethane	Trichloroethene (TCE)	Tetrachloroethene (PCE)
Model Toxics Control Act (MTCOA) Method A Cleanup Levels (CULs) in µg/L			--	--	--	--	--	--	0.2	--	--	--	--	5	5
GMW-1	8/27/2019	(LFP)	--	--	<0.157	<0.0860	<42	6.17	<0.118	<0.188	<0.0933	<0.152	<0.186	<0.153	<0.199
GMW-1	8/27/2019	(LFP) (DUP)	--	--	<0.157	<0.0860	<42	4.62(J)	<0.118	<0.188	<0.0933	<0.152	<0.186	<0.153	<0.199
GMW-1	11/25/2019	(NS)	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	8/27/2019	(LFP)	--	--	<0.157	<0.0860	<42	<0.305	<0.118	<0.188	<0.0933	<0.152	<0.186	<0.153	<0.199
MW-9	11/26/2019	(LFP)	--	--	<0.157	<0.0860	54.0 (J,J4)	<0.305	<0.118	<0.188	<0.0933	<0.152	<0.186	<0.153	<0.199
MW-11	8/27/2019	(LFP)	--	--	<0.157	<0.0860	<42	<0.305	<0.118	<0.188	<0.0933	<0.152	<0.186	<0.153	<0.199
MW-11	11/25/2019	(LFP)	--	--	<0.157	<0.0860	<42.0(J4)	<0.305	<0.118	<0.188	<0.0933	<0.152	<0.186	<0.153	<0.199
MW-12	8/27/2019	(LFP)	--	--	<0.157	<0.0860	<42	<0.305	<0.118	<0.188	<0.0933	<0.152	<0.186	<0.153	<0.199
MW-12	11/25/2019	(NP)	--	--	<0.157	<0.0860	<42.0(J4)	1.82(J)	<0.118	<0.188	<0.0933	<0.152	3.4	<0.153	<0.199

Notes:

-- = Not analyzed/not applicable

LFP = Low Flow Purge

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)

J4 = The associated batch QC was outside the established quality control range for accuracy

Volatile organic compounds analyzed by U.S. Environmental Protection Agency (EPA) 8260C

Table 4
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 Velocity (fpm)	Influent Flowrate (acfm)	Influent Flowrate (scfm)	Influent PID (ppmv)					
Permit Requirements		--	--	--		--	--	--	> 625	--	--		--	<120	--	<200	>98% ²			
04/20/16	off / on	6021.5	--	--	on / on	37.8	--	--	633.0	3.0	83.0	1080.0	36.8	35.5	316.0	0.9	100%	3.61	--	--
04/22/16	on / on	6064.0	42.5	88.5%	on / on	37.8	0.0	0.0%	649.0	2.0	89.0	1110.0	37.9	36.0	283.7	2.1	99%	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%	3.24	16.96	22.78
05/04/16	on / on	6354.2	164.6	100.0%	on / on	37.8	0.0	0.0%	626.0	3.0	91.0	920.0	31.4	29.8	245.5	1.4	99%	2.36	16.17	38.95
05/10/16	on / on	6496.4	142.2	100.0%	on / on	37.8	0.0	0.0%	647.6	3.0	99.0	760.0	25.9	24.3	211.0	1.5	99%	1.65	9.78	48.73
06/13/16	off / on	7131.0	634.6	77.8%	off / on	37.8	0.0	0.0%	649.4	2.0	90.0	897.0	30.6	29.1	586.0	2.5	100%	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%	on / on	37.8	0.0	0.0%	644.0	5.0	86.5	1650.0	56.3	54.2	288.9	0.4	100%	5.04	75.83	302.03
09/20/16	on / on	8141.5	649.5	100.2%	on / on	37.8	0.0	0.0%	662.0	4.0	84.0	1029.0	35.1	33.9	398.0	1.1	100%	4.34	117.46	419.50
10/27/16	off / on	8721.0	579.5	65.3%	off / on	37.8	0.0	0.0%	662.0	1.0	75.0	120.0	4.1	4.0	135.0	0.0	100%	0.17	4.18	423.68
11/16/16	off / on	8831.1	110.1	22.9%	off / on	37.8	0.0	0.0%	719.6	1.0	59.0	290.0	9.9	9.9	451.8	5.2	99%	1.44	6.63	430.31
12/15/16	off / on	8989.1	158.0	22.7%	off / on	37.8	0.0	0.0%	645.8	0.5	65.0	280.0	9.5	9.5	388.0	6.4	98%	1.18	7.79	438.10
01/31/17	on / on	10005.0	1015.9	90.1%	on / on	38.2	0.4	0.0%	662.0	1.0	62.0	480.0	16.4	16.3	159.6	2.5	98%	0.84	35.55	473.65
02/13/17	off / on	10104.9	99.9	32.0%	off / on	38.2	0.0	0.0%	625.8	1.0	94.5	745.0	25.4	23.9	182.8	0.0	100%	1.41	5.85	479.51
03/01/17	off / on	10112.1	7.2	1.9%	off / on	38.3	0.1	0.0%	663.8	3.0	120.0	885.0	30.2	27.3	215.0	0.5	100%	1.89	0.57	480.07
04/26/17	on / on	11208.2	1096.1	81.6%	on / on	38.3	0.0	0.0%	645.8	5.0	78.0	1800.0	61.4	60.1	64.4	0.9	99%	1.25	56.87	536.94
06/06/17	off / on	11250.7	42.5	4.3%	off / on	38.4	0.1	0.0%	665.6	9.0	152.7	2290.0	78.1	67.7	198.8	3.0	98%	4.34	7.68	544.62
07/07/17	on / on	11967.3	716.6	96.3%	on / on	38.4	0.0	0.0%	663.8	9.0	122.4	1460.0	49.8	45.4	160.0	3.2	98%	2.34	69.89	614.51
08/30/17	on / on	13184.3	1217.0	93.9%	off / on	38.4	0.0	0.0%	663.8	10.0	85.0	1900.0	64.8	63.3	395.0	4.5	99%	8.06	408.47	1022.98
09/21/17	on / on	13708.3	524.0	99.2%	on / on	38.4	0.0	0.0%	663.8	8.0	127.5	2105.0	71.8	64.8	385.5	1.3	100%	8.04	175.56	1198.54
10/05/17	off / on	13903.3	195.0	58.0%	off / on	38.4	0.0	0.0%	665.6	12.0	127.0	2502.0	85.3	77.8	402.0	2.4	99%	10.07	81.83	1280.37
11/02/17	on / on	14536.5	633.2	94.2%	on / on	38.4	0.0	0.0%	676.4	8.0	84.2	1882.0	64.2	62.5	230.0	0.2	100%	4.63	122.17	1402.54
12/27/17	on / on	15330.2	793.7	60.1%	on / on	38.5	0.0	0.0%	663.8	2.0	72.0	860.0	29.3	28.8	24.6	0.1	100%	0.23	7.55	1410.09
01/30/18	on / on	16147.3	817.1	100.1%	off/off	38.5	0.0	0.0%	663.8	3.0	93.5	980.0	33.4	31.6	13.4	0.2	99%	0.14	4.65	1414.73
02/21/18	on / on	16675.8	528.5	100.1%	off / off	38.5	0.0	0.0%	663.8	1.9	58.9	819.0	27.9	28.1	19.6	0.0	100%	0.18	3.91	1418.64
03/13/18	on / on	17135.6	459.8	95.8%	on / on	39.6	1.1	0.2%	662.0	15.0	65.0	2297.0	78.3	80.4	60.9	1.3	98%	1.58	30.22	1448.86
04/18/18	off / on	17399.9	264.3	30.6%	off / on	281.4	241.8	28.0%	667.0	20.0	68.0	2875.0	98.0	101.3	263.7	2.9	99%	8.60	17.37	1466.23
05/21/18	on / on	18190.8	790.9	100.0%	on / on	999.2	717.8	90.6%	694.4	1.0	145.0	840.0	28.6	24.7	148.0	3.1	98%	1.18	283.43	1749.66
06/19/18	off / on	--	--	--	off / on	--	--	--	690.0	--	--	--	--	105.0	140.0	2.0	99%	4.73	--	--
07/18/18	off / on	19156.4	965.6	69.4%	off / off	1548.9	549.7	39.5%	674.6	12.0	90.0	3105.0	105.9	103.1	49.0	1.0	98%	1.63	190.43	1940.09
08/23/18	off / on	20019.6	863.2	99.9%	off / off	1548.9	0	0.0%	671.0	30.0	88.0	2234.0	76.2	77.6	104.0	1.0	99%	2.60	58.48	1998.57
09/13/18	on / on	20523.2	503.6	99.9%	off / off	1548.9	0	0.0%	671.0	5.0	91.5	1730.0	59.0	56.3	102.4	2.3	98%	1.86	54.53	2053.10
10/05/18	on / on	21048.9	525.7	99.6%	off / off	1548.9	0	0.0%	671.0	5.0	73.0	778.0	26.53	26.2	68.0	0.8	99%	0.57	40.66	2093.77
11/06/18	off / on	21197.4	148.5	19.3%	off / off	1548.9	0	0.0%	678.2	10.0	108.0	724.0	24.69	23.2	148.0	1.9	99%	1.10	3.55	2097.32
12/13/18	off / on	21892.5	695.1	78.3%	off / off	1548.9	0	0.0%	789.8	2.0	77.7	758.0	25.85	25.1	578.2	11.7	98%	4.68	31.96	2129.28
01/10/19	off / on	22560.6	668.1	99.4%	off / off	1548.9	0	0.0%	788.0	4.0	85.0	1100.0	37.51	36.1	377.0	7.8	98%	4.39	130.18	2259.46
02/28/19	off / on	23429.9	869.3	73.9%	off / off	1548.9	0	0.0%	788.0	8.0	79.6	1870.0	63.77	62.7	128.8	7.5	94%	2.60	158.90	2418.36
03/25/19	on / on	24032.6	602.7	100.5%	off / off	1548.9	0	0.0%	788.0	7.0	91.9	2065.0	70.42	67.5	31.5	0.6	98%	0.68	65.26	2483.62
04/03/19	on / on	24248.1	215.5	99.8%	off / off	1548.9	0	0.0%	788.0	7.0	96.1	2073.0	70.69	67.2	141.4	18.9	87%	3.06	6.15	2489.77
05/08/19	on / off	25088.0	839.9	100.0%	off / off	1548.9	0	0.0%	788.0	7.0	97.1	1989.0	67.82	64.4	11.6	2.4	79%	0.24	107.13	2596.89
06/27/19	off / on	25380.9	292.9	24.4%	off / off	1548.9	0	0.0%	788.0	15.0	125.8	2968.0	101.21	93.1	57.6	15.3	73%	1.73	2.94	2599.83
07/23/19	on / on	25745.4	364.5	58.4%	off / off	1548.9	0	0.0%	788.0	13.0	84.8	2335.0	79.62	78.4	72.2	30.2	58%	1.82	26.24	2626.07
08/22/19	on / off	26462.0	716.6	99.5%	off / off	1548.9	0	0.0%	788.0	13.0	78.8	2238.0	76.32	76.0	3.5	0.6	83%	0.09	54.44	2680.50
09/04/19	on / on	26483.4	21.4	6.9%	off / off	1548.9	0	0.0%	788.0	20.0	93.6	2340.0	79.79	78.6	18.5	0.2	99%	0.47	0.08	2680.58
10/28/19	off / on	26570.9	87.5	6.8%	off / off	1548.9	0	0.0%	788.0	13.0	81.6	2975.0	101.45	100.5	23.7	2.9	88%	0.77	1.71	2682.29
11/19/19	off / off	26805.0	234.1	44.3%	off / off	1548.9	0	0.0%	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	--	0.00	7.48	2689.77
12/31/19	off / off	26805.0	0.0	0.0%	off / off	1548.9	0	0.0%	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	--	0.00	0.00	2689.77

2019 Annual Operational Hours	4,913
2019 Average Uptime Percentage	53.58%
2019 Average SVE flow rate (scfm):	60.4

SVE = Soil Vapor Extraction

AS = Air Sparge

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.

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

Table 4
Air sparge and Soil Vapor Extraction - Operational Data
WA-11060

4580 Fauntleroy Way SW, Seattle, WA 98126

% = 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. $scfm = acfm \cdot (P_{actual} / P_{standard}) \cdot (T_{standard} / T_{actual})$
Pstandard = Standard pressure = 1 atmosphere (14.7 pounds per square inch [psi])
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 [ft³ * atm] / [lb mol * °R]) / (68 + 459.67)°R = 0.00260 lb mol / ft³
Molar density of air based on standard pressure of 1 atm and standard temperature of 68°F, as used by the National Institute of Standards and Technology (NIST).
P = pressure
R = gas constant
°R = degrees Rankine
T = temperature
atm = atmosphere
lb mol = Pound per Mole
ft³ = cubic feet

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

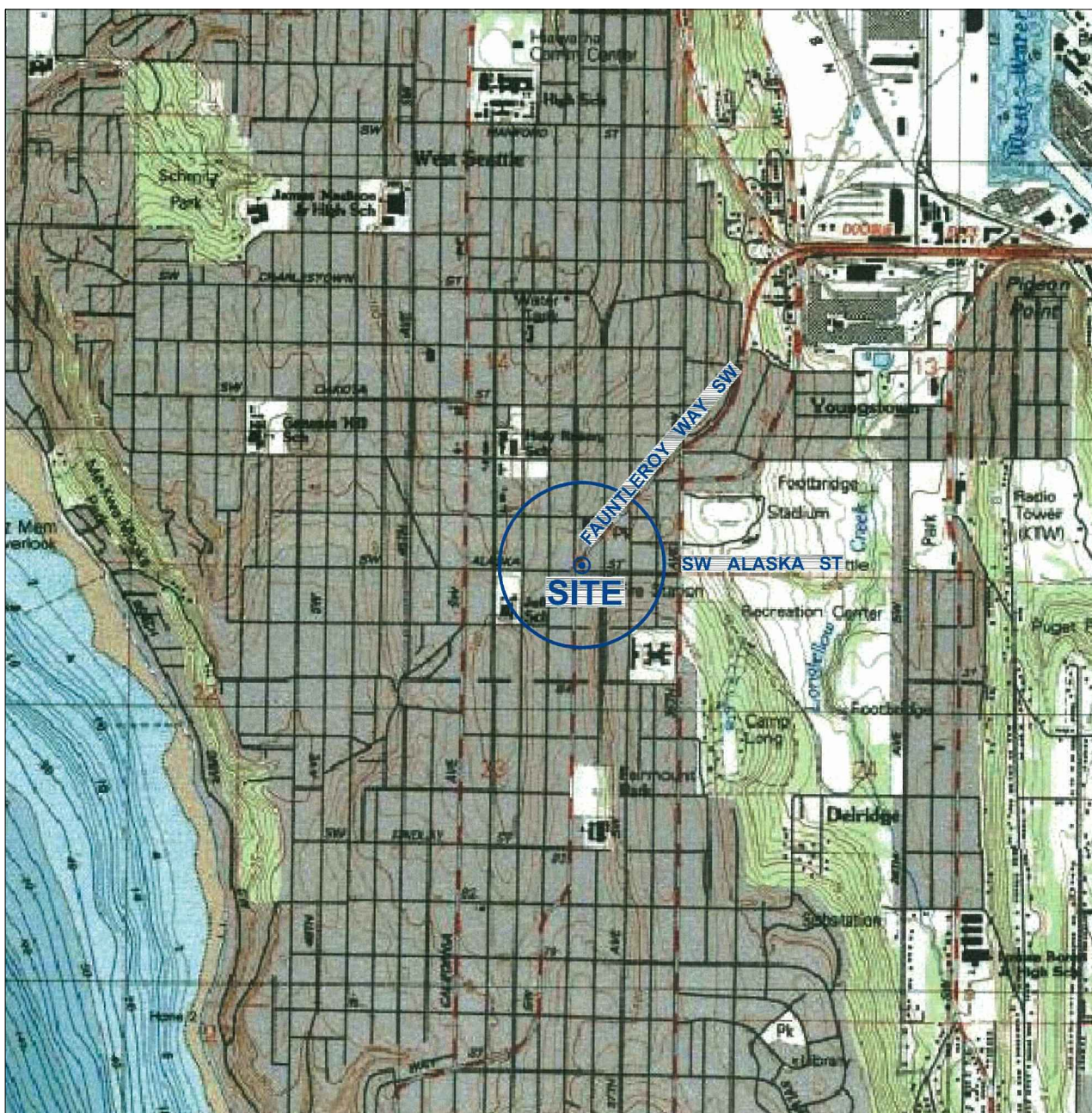
1 = Influent sample port is located post-dilution thus flow rate through cat ox is equal to exhaust flowrate and compliant with Puget Sound Clean Air Agency (PSCAA) permit #29664 subpart 7b.
2= Destruction Efficiency must be >97% when TPH influent is greater than 200 ppmv per PSCAA permit # 29664 subpart 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.
5= Flow rate for the 6/19/18 O&M Event was collected from the PLC Screen.

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

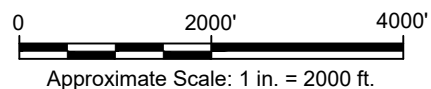
$$Mass\ Removal\ Rate = (flowrate [scfm] * 60 [min]x 24 [hr])x (VOCs [ppmv] * 10^6x 86 [\frac{lbs}{mol}] x .0026 [\frac{lbmol}{ft^3}])$$

FIGURES





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



WASHINGTON

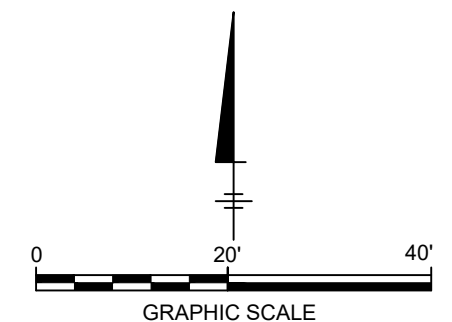


FORMER BP FACILITY NO. 11060
4580 FAUNTLEROY WAY SW
SEATTLE, WASHINGTON

SITE LOCATION MAP

---	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)
---	PERIMETER OF THE BUILDING
AS/SVE	AIR SPARGE/SOIL VAPOR EXTRACTION

1. AS AND VE WELL LOCATIONS HAVE NOT BEEN SURVEYED AND ARE APPROXIMATE (EXCEPT FOR VE-1 AND VE-2).
2. BASEMAP SUPPLIED BY OTAK, INC. IN 2010. HISTORICAL INFORMATION SUPPLIED BY DELTA ENVIRONMENTAL CONSULTANTS, INC.
3. MONITORING WELLS MW-6, MW-11, AND MW-12 WERE SURVEYED ON 10/25/2018 BY OTAK.



FORMER BP FACILITY NO. 11060
4580 FAUNTLEROY WAY SW
SEATTLE, WASHINGTON

SITE PLAN

MW-6	
Date	2/22/2019
GRO	ND<31.6
DRO	76.5(J)
HO	214(J)
B	ND<0.331
T	ND<0.412
E	ND<0.384
X	ND<1.06
MTBE	ND<0.367

MW-9	
Date	2/22/2019
GRO	36.7(BJ)
DRO	116(J)
HO	120(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)
 - 241.00 --- GROUNDWATER ELEVATION CONTOUR, DASHED WHERE INFERRED (FEET ABOVE NAVD 88)
 - (241.33) GROUNDWATER ELEVATION (FEET ABOVE NAVD 88)
 - NAVD 88 NORTH AMERICAN VERTICAL DATUM 1988
 - ND< 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
 - B THE SAME ANALYTE IS FOUND IN THE ASSOCIATED BLANK

GMW-1	
Date	2/20/2019
GRO	773(B)
DRO	143(J)
HO	ND<83.3
B	ND<0.331
T	ND<0.412
E	ND<0.384
X	ND<1.06
MTBE	ND<0.367

MW-12	
Date	2/20/2019
GRO	3,370
DRO	486
HO	206(J)
B	4.91
T	ND<0.412
E	2.81
X	2.54(J)
MTBE	ND<0.367

MW-2	
Date	2/20/2019
GRO	85.8 (BJ) / [ND<31.6]
DRO	199(J)
HO	175(J)
B	ND<0.331 / [ND<0.331]
T	ND<0.412 / [ND<0.412]
E	ND<0.384 / [ND<0.384]
X	ND<1.06 / [ND<1.06]
MTBE	ND<0.367 / [ND<0.367]

MW-11	
Date	2/20/2019
GRO	132(B)
DRO	354
HO	466
B	ND<0.331
T	ND<0.412
E	ND<0.384
X	ND<1.06
MTBE	1.04

MW-1	
Date	2/22/2019
GRO	ND<31.6
DRO	369
HO	322
B	ND<0.331
T	ND<0.412
E	ND<0.384
X	ND<1.06
MTBE	ND<0.367

- BOLD** CONSTITUENT DETECTED ABOVE MODEL TOXICS CONTROL ACT METHOD A CLEANUP LEVELS
- AS/SVE AIR SPARGE AND SOIL VAPOR EXTRACTION
- * ANAMALOUS DATA NOT USED FOR CONTOURING

NOTES

- ALL GAUGING DATA FROM 2/20/2019, FEW LOCATIONS SAMPLED ON 2/22/2019

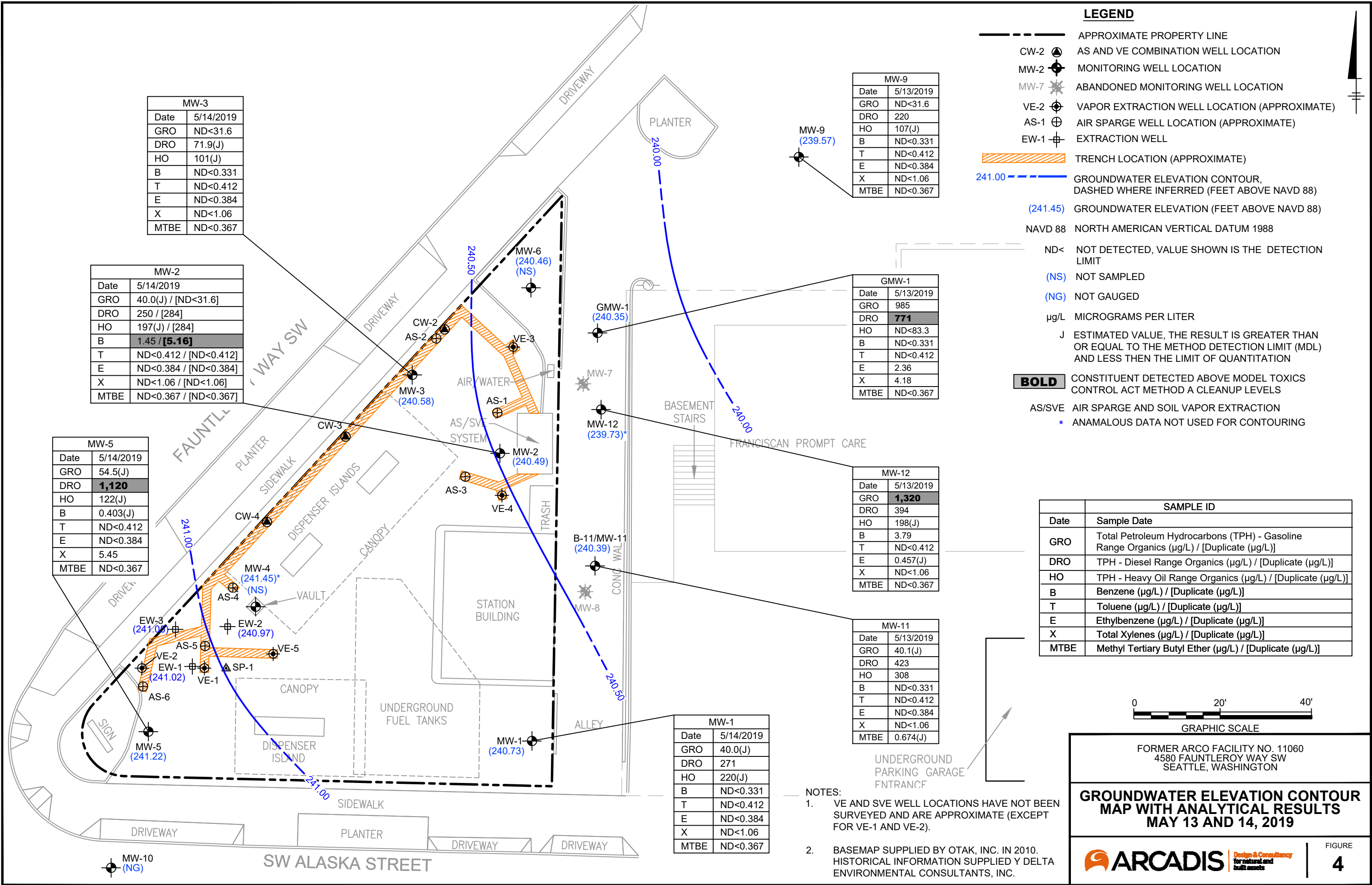
SAMPLE ID	
Date	Sample Date
GRO	Total Petroleum Hydrocarbons (TPH) - Gasoline Range Organics (µg/L) / [Duplicate (µg/L)]
DRO	TPH - Diesel Range Organics (µg/L) / [Duplicate (µg/L)]
HO	TPH - Heavy Oil Range Organics (µg/L) / [Duplicate (µg/L)]
B	Benzene (µg/L) / [Duplicate (µg/L)]
T	Toluene (µg/L) / [Duplicate (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)]



FORMER ARCO FACILITY NO. 11060
4580 FAUNTLEROY WAY SW
SEATTLE, WASHINGTON

GROUNDWATER ELEVATION CONTOUR MAP WITH ANALYTICAL RESULTS FEBRUARY 20 & 22, 2019

- NOTES:
- VE AND SVE WELL LOCATIONS HAVE NOT BEEN SURVEYED AND ARE APPROXIMATE (EXCEPT FOR VE-1 AND VE-2).
 - BASEMAP SUPPLIED BY OTAK, INC. IN 2010. HISTORICAL INFORMATION SUPPLIED BY DELTA ENVIRONMENTAL CONSULTANTS, INC.

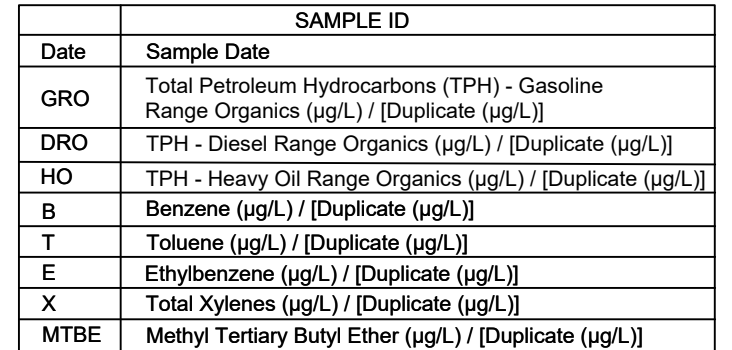


MW-9	
Date	8/27/2019
GRO	ND<31.6
DRO	107(J)
HO	98.9(J)
B	ND<0.0896
T	ND<0.412
E	ND<0.158
X	ND<0.316
MTBE	ND<0.102

GMW-1	
Date	8/27/2019
GRO	2,750 / [2,570]
DRO	777 / [785]
HO	ND<167 / [ND<167]
B	ND<0.0896 / [ND<0.0896]
T	ND<0.412 / [ND<0.412]
E	12.0 / [11.5]
X	13.9 / [13.1]
MTBE	ND<0.102 / [ND<0.102]

MW-12	
Date	8/27/2019
GRO	260
DRO	404
HO	192(J)
B	3.11
T	ND<0.412
E	0.705
X	0.404(J)
MTBE	ND<0.102

MW-11	
Date	8/27/2019
GRO	ND<31.6
DRO	227
HO	295
B	ND<0.0896
T	ND<0.412
E	ND<0.158
X	ND<0.316
MTBE	0.818



0 20' 40'

GRAPHIC SCALE

FORMER ARCO FACILITY NO. 11060
4580 FAUNTLEROY WAY SW
SEATTLE, WASHINGTON

GROUNDWATER ELEVATION CONTOUR MAP WITH ANALYTICAL RESULTS AUGUST 27, 2019



FIGURE 5

- NOTES:
1. VE AND SVE WELL LOCATIONS HAVE NOT BEEN SURVEYED AND ARE APPROXIMATE (EXCEPT FOR VE-1 AND VE-2).
 2. BASEMAP SUPPLIED BY OTAK, INC. IN 2010. HISTORICAL INFORMATION SUPPLIED Y DELTA ENVIRONMENTAL CONSULTANTS, INC.

MW-2	
Date	11/26/2019
GRO	256 (B)
DRO	414
HO	706
B	0.883 (J)
T	ND<0.412
E	ND<0.384
X	ND<1.06
MTBE	ND<0.367

MW-3	
Date	11/25/2019
GRO	63.6 (BJ) / [47.9 (BJ)]
DRO	ND<66.7 / [66.9 (J)]
HO	276 / [98.7 (J)]
B	ND<0.331 / [ND<0.331]
T	ND<0.412 / [ND<0.412]
E	ND<0.384 / [ND<0.384]
X	ND<1.06 / [ND<1.06]
MTBE	ND<0.367 / [ND<0.367]

MW-9	
Date	11/26/2019
GRO	47.0 (BJ)
DRO	108 (J)
HO	227 (J)
B	ND<0.0896
T	ND<0.412
E	ND<0.158
X	ND<0.316
MTBE	ND<0.102

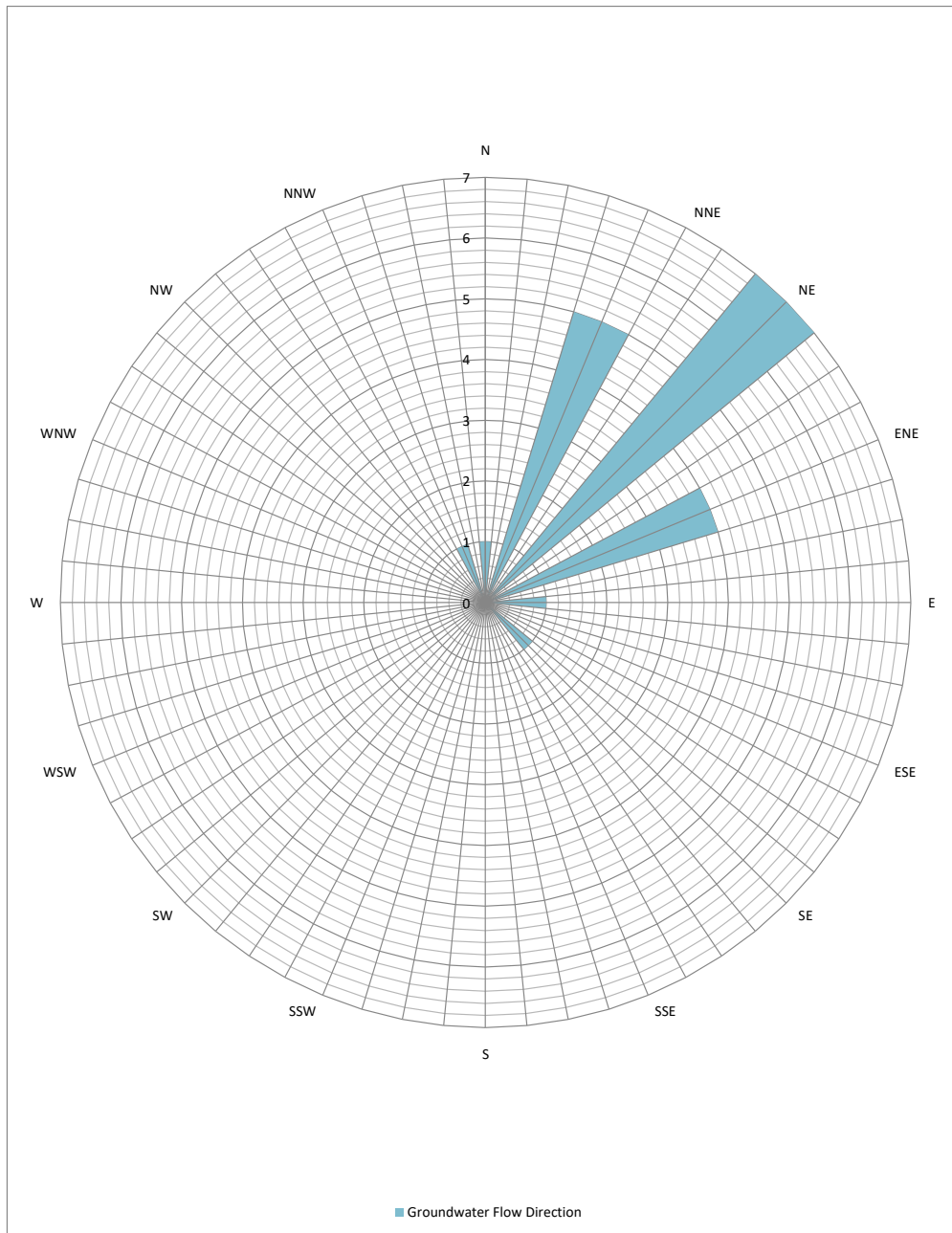
MW-12	
Date	11/25/2019
GRO	855
DRO	349
HO	183 (J)
B	2.79
T	ND<0.412
E	1.06
X	0.464 (J)
MTBE	ND<0.102

MW-11	
Date	11/25/2019
GRO	137 (B)
DRO	220
HO	408
B	ND<0.0896
T	ND<0.412
E	ND<0.158
X	ND<0.316
MTBE	0.771

- 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)
 - 241.00 GROUNDWATER ELEVATION CONTOUR, DASHED WHERE INFERRED (FEET ABOVE NAVD 88)
 - (241.30) GROUNDWATER ELEVATION (FEET ABOVE NAVD 88)
 - NAVD 88 NORTH AMERICAN VERTICAL DATUM 1988
 - ND< NOT DETECTED, VALUE SHOWN IS THE DETECTION LIMIT
 - (NS) NOT SAMPLED
 - (NG) NOT GAUGED
 - [0.05] NON - AQUEOUS PHASE LIQUID (NAPL) THICKNESS (FEET)
 - 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
 - B THE SAME ANALYTE IS FOUND IN THE ASSOCIATED BLANK
 - BOLD** CONSTITUENT DETECTED ABOVE MODEL TOXICS CONTROL ACT METHOD A CLEANUP LEVELS
 - AS/SVE AIR SPARGE AND SOIL VAPOR EXTRACTION
 - * ANAMALOUS DATA NOT USED FOR CONTOURING

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)]

- NOTES:
- VE AND SVE WELL LOCATIONS HAVE NOT BEEN SURVEYED AND ARE APPROXIMATE (EXCEPT FOR VE-1 AND VE-2).
 - BASEMAP SUPPLIED BY OTAK, INC. IN 2010. HISTORICAL INFORMATION SUPPLIED BY DELTA ENVIRONMENTAL CONSULTANTS, INC.



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 = 21

FORMER ARCO FACILITY NO. 11060
 4580 FAUNTLEROY WAY SW
 SEATTLE, WASHINGTON

HISTORICAL GROUNDWATER GRADIENT DIRECTION ROSE DIAGRAM

ARCADIS Design & Consultancy
 for natural and built assets

**FIGURE
 7**

ATTACHMENT A

Groundwater Monitoring Field Data Sheets



Site:		WA-11060					
Date(s):		2/20/2019					
Sampler(s):		Alex Pink					
Equipment:		Oil/Water Interface Probe					
Well	Date	Time	Depth to Water (ft)	Well Depth (ft)	LNAPL Thickness (ft)	PID (ppmv)	Remarks
EW-1	2/20/2019	10:00:00	26.85	--	--	0.2	
EW-2	2/20/2019	10:17:00	26.52	--	--	0	
EW-3	2/20/2019	10:07:00	26.93	--	--	330.1	
GWM-1	2/20/2019	10:35:00	24.34	--	--	1184	
MW-1	2/20/2019	10:25:00	26.37	--	--	148.9	
MW-11	2/20/2019	10:29:00	25.49	--	--	0.7	
MW-12	2/20/2019	10:33:00	26.21	--	--	542.9	
MW-2	2/20/2019	10:51:00	25.27	--	--	0.9	
MW-3	2/20/2019	10:47:00	23.86	--	--	0.6	
MW-4	2/20/2019	10:13:00	24.8	--	--	404.3	
MW-5	2/20/2019	10:20:00	27.33	--	--	1.3	
MW-6	2/20/2019	10:42:00	13.9	--	--	0.3	
MW-9	2/20/2019	10:38:00	23.27	--	--	1.7	

Project Number	GP18BPWC.WA48	Well ID	MW-1	Date	2/20/2019
Project Name/Location	WA-11060			Weather(°F)	Sunny
Measuring Pt. Description	Top of Casing	Screen Setting (ft-bmp)		Casing Diameter (in.)	4
Static Water Level (ft-bmp)	26.35	Total Depth (ft-bmp)	27.33	Water Column (ft)	0.98
MP Elevation		Pump Intake (ft-bmp)	27	Purge Method:	Low-Flow
				Sample Method	Low-Flow
Sample Time:	#Error	Volumes Purged		Replicate/ Code No.	
Purge Start:	12:03	Gallons Purged		Sampled by	Alex Pink, Dan Gilbert
Purge End:	#Error				

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
12:10		200	26.63	0.37	6.29	1085		2.02	14.8	59.8		
12:13	3	200	26.8	0.53	6.46	1070		1.23	15	30.3		

Constituent Sampled	Container	Number	Preservative
Comments: Well ran dry after two parameter readings.			

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: _____	Key Number To Well: _____

ft-bmp = feet below measuring point
 in. = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Project Number	GP18BPWC.WA48	Well ID	MW-12	Date	2/20/2019
Project Name/Location	WA-11060			Weather(°F)	Cloudy
Measuring Pt. Description	Top of Casing	Screen Setting (ft-bmp)		Casing Diameter (in.)	2
Static Water Level (ft-bmp)	26.22	Total Depth (ft-bmp)	29.41	Water Column (ft)	3.19
MP Elevation		Pump Intake (ft-bmp)	28	Purge Method:	Low-Flow
Sample Time:	17:30	Volumes Purged	2.74	Replicate/ Code No.	
Purge Start:	05:09	Gallons Purged	1.43	Sampled by	Alex Pink, Dan Gilbert
Purge End:	17:28				

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
17:12		200	26.53	0.63	6.6	954		0.79	14.8	73.3	Clear	No
17:15	3	200	26.62	0.79	6.66	946		0.72	14.8	66.2	Clear	No
17:18	3	200	26.74	0.95	6.68	954		0.66	14.8	59.2	Clear	No
17:21	3	200	26.85	1.11	6.69	946		0.6	14.8	55.6	Clear	No
17:24	3	200	26.93	1.27	6.68	931		0.57	14.7	54.5	Clear	No
17:27	3	200	27.03	1.43	6.68	912		0.56	14.9	53.6	Clear	No

Constituent Sampled	Container	Number	Preservative
TCL VOCs 8260B	40 mL Glass	3	HCL
TCL SVOCs 8270 8270D SIM	40 mL Glass	2	None
GRO NWTPH-Gx	40 mL Glass	3	HCL
DRO NWTPH-Dx	40 mL Glass	2	HCL
EDB SV8011	40 mL Glass	3	NaThio
(Diss) TAL Metals SW6010C/7470A	250 mL Plastic	1	None
Total TAL Metals 6010C	250 mL Plastic	1	HNO3

Comments:
Well Casing Volume Conversion

Well diameter 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
 (inches) = gallons 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65
 per foot

Well Information

Well Location: MW-12	Well Locked at Arrival: yes
Condition of Well: Good	Well Locked at Departure: yes
Well Completion:	Key Number To Well:

ft-bmp = feet below measuring point
 in. = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Project Number	GP18BPWC.WA48	Well ID	MW-11	Date	2/20/2019
Project Name/Location	WA-11060			Weather(°F)	Cloudy
Measuring Pt. Description	Top of Casing	Screen Setting (ft-bmp)		Casing Diameter (in.)	2
Static Water Level (ft-bmp)	25.49	Total Depth (ft-bmp)	31.5	Water Column (ft)	6.01
MP Elevation		Pump Intake (ft-bmp)	28	Purge Method:	Low-Flow
				Sample Method	Low-Flow
Sample Time:	13:05	Volumes Purged	1.29	Replicate/ Code No.	
Purge Start:	12:41	Gallons Purged	1.27	Sampled by	Alex Pink, Dan Gilbert
Purge End:	13:05				

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
12:45		200	25.74	0.21	6.66	982		1.24	15.5	160.2	Clear	None
12:48	3	200	24.89	0.37	6.71	964		0.98	15.7	139.9	Clear	None
12:51	3	200	26.01	0.53	6.75	961		0.88	15.9	128.2	Clear	None
12:55	4	200	26.12	0.74	6.77	966		0.82	15.8	117.1	Clear	None
12:59	4	200	26.26	0.95	6.77	979		0.77	15.7	109.4	Clear	None
13:02	3	200	26.32	1.11	6.76	983		0.75	15.6	105.6	Clear	None
13:05	3	200	26.39	1.27	6.77	993		0.72	15.7	102.6	Clear	None

Constituent Sampled	Container	Number	Preservative
TCL VOCs 8260B	40 mL Glass	3	HCL
TCL SVOCs 8270 8270D SIM	40 mL Glass	2	None
GRO NWTPH-Gx	40 mL Glass	3	HCL
NWTPH-Dx	40 mL Glass	2	HCL
EDB SV8011	40 mL Glass	3	NaThio
(Diss) TAL Metals SW6010C/7470A	250 mL Plastic	1	None
Total TAL Metals 6010C	250 mL Plastic	1	HNO3

Comments:
Well Casing Volume Conversion

Well diameter 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
(inches) = gallons 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65
per foot

Well Information

Well Location: MW-11	Well Locked at Arrival: yes
Condition of Well: Good	Well Locked at Departure: yes
Well Completion:	Key Number To Well:

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius

Project Number	GP18BPWC.WA48	Well ID	GWM-1	Date	2/20/2019
Project Name/Location	WA-11060			Weather(°F)	Cloudy
Measuring Pt. Description	Top of Casing	Screen Setting (ft-bmp)		Casing Diameter (in.)	2
Static Water Level (ft-bmp)	24.33	Total Depth (ft-bmp)	34.03	Water Column (ft)	9.70
MP Elevation		Pump Intake (ft-bmp)	30	Purge Method:	Low-Flow
Sample Time:	16:40	Volumes Purged	1.30	Replicate/ Code No.	
Purge Start:	16:13	Gallons Purged	2.06	Sampled by	Alex Pink, Dan Gilbert
Purge End:	16:37				

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
16:21		200	24.47	1.27	5.51	2238		1.09	14.2	99.5	Clear	No
16:24	3	200	24.47	1.43	5.55	2237		0.84	14.4	93	Clear	No
16:27	3	200	24.48	1.59	5.6	2246		0.79	14.5	80.3	Clear	No
16:30	3	200	24.51	1.74	5.63	2241		0.74	14.6	70.3	Clear	No
16:33	3	200	24.52	1.90	5.66	2238		0.71	14.5	69.8	Clear	No
16:36	3	200	24.52	2.06	5.67	2234		0.7	14.5	63.4	Clear	No

Constituent Sampled	Container	Number	Preservative
TCL VOCs 8260B	40 mL Glass	3	HCL
GRO NWTPH-Gx	40 mL Glass	3	HCL
TCL SVOCs 8270 8270D SIM	40 mL Glass	2	None
DRO NWTPH-Dx	40 mL Glass	2	HCL
EDB SV8011	40 mL Glass	3	NaThio
Total TAL Metals 6010C	250 mL Plastic	1	HNO3
(Diss) TAL Metals SW6010C/7470A	250 mL Plastic	1	None

Comments:
Well Casing Volume Conversion

Well diameter 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
 (inches) = gallons 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65
 per foot

Well Information

Well Location: <u>GMW-1</u>	Well Locked at Arrival: <u>yes</u>
Condition of Well: <u>Good</u>	Well Locked at Departure: <u>yes</u>
Well Completion: _____	Key Number To Well: _____

ft-bmp = feet below measuring point
 in. = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Project Number	GP18BPWC.WA48	Well ID	MW-2	Date	2/20/2019
Project Name/Location	WA-11060			Weather(°F)	Cloudy
Measuring Pt. Description	Top of Casing	Screen Setting (ft-bmp)		Casing Diameter (in.)	4
Static Water Level (ft-bmp)	25.31	Total Depth (ft-bmp)	28.82	Water Column (ft)	3.51
MP Elevation		Pump Intake (ft-bmp)	28	Purge Method:	Low-Flow
				Sample Method	Low-Flow
Sample Time:	15:30	Volumes Purged	0.63	Replicate/ Code No.	DUP-1
Purge Start:	14:57	Gallons Purged	1.43	Sampled by	Alex Pink, Dan Gilbert
Purge End:	15:25				

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
15:00		200	25.44	0.16	5.9	1310		1.99	14.8	220.3	Clear	No
15:03	3	200	25.49	0.32	5.92	1317		2.15	15	215	Clear	No
15:06	3	200	25.57	0.48	5.96	1312		2.34	14.9	213.1	Clear	No
15:09	3	200	25.64	0.63	5.95	1300		2.76	15	214.7	Clear	No
15:12	3	200	25.72	0.79	5.99	1262		3.33	15	220.3	Clear	No
15:15	3	200	25.77	0.95	6.01	1229		3.84	15.1	226.7	Clear	No
15:18	3	200	25.82	1.11	6.01	1216		4.13	15.1	231.7	Clear	No
15:21	3	200	25.88	1.27	6.01	1203		4.25	15	236.7	Clear	No
15:24	3	200	25.93	1.43	6.01	1198		4.39	14.9	240.5	Clear	No

Constituent Sampled	Container	Number	Preservative
TCL VOCs 8260B	40 mL Glass	3	HCL
GRO NWTPH-Gx	40 mL Glass	3	HCL
TCL SVOCs 8270 8270D SIM	40 mL Glass	2	None
EDB SV8011	40 mL Glass	3	NaThio
DRO NWTPH-Dx	40 mL Glass	2	HCL
(Diss) TAL Metals SW6010C/7470A	250 mL Plastic	1	None
Total TAL Metals 6010C	250 mL Plastic	1	HNO3

Comments:

Well Casing Volume Conversion

Well diameter 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
(inches) = gallons 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65
per foot

Well Information

Well Location: MW-2

Well Locked at Arrival: yes

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius

Condition of Well: Good

Well Locked at Departure: yes

Well Completion: _____

Key Number To Well: _____

Project Number	GP18BPWC.WA48	Well ID	MW-9	Date	2/20/2019
Project Name/Location	WA-11060			Weather(°F)	Cloudy
Measuring Pt. Description	Top of Casing	Screen Setting (ft-bmp)		Casing Diameter (in.)	2
Static Water Level (ft-bmp)	23.26	Total Depth (ft-bmp)	35.06	Water Column (ft)	11.80
MP Elevation		Pump Intake (ft-bmp)	30	Purge Method:	Low-Flow
Sample Time:	14:10	Volumes Purged	0.63	Replicate/ Code No.	
Purge Start:	13:42	Gallons Purged	1.22	Sampled by	Alex Pink, Dan Gilbert
Purge End:	14:07				

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
13:45		200	26.39	0.16	6.15	842		1.05	13.7	178.6	Clear	No
13:48	3	200	23.5	0.32	6.12	851		0.96	13.7	169.2	Clear	No
13:51	3	200	23.51	0.48	6.16	829		0.9	13.6	155.7	Clear	No
13:54	3	200	23.51	0.63	6.18	825		0.83	13.3	145.6	Clear	No
13:57	3	200	23.51	0.79	6.22	814		0.76	13.5	136.1	Clear	No
14:00	3	200	23.51	0.95	6.21	815		0.72	13.4	128.8	Clear	No
14:03	3	200	23.52	1.06	6.21	814		0.69	13.7	123.1	Clear	No
14:06	3	200	23.53	1.22	6.22	813		0.67	13.7	118.9	Clear	No

Constituent Sampled	Container	Number	Preservative
TCL VOCs 8260B	40 mL Glass	3	HCL
TCL SVOCs 8270 8270D SIM	40 mL Glass	2	None
GRO NWTPH-Gx	40 mL Glass	3	HCL
DRO NWTPH-Dx	40 mL Glass	2	HCL
EDB SV8011	40 mL Glass	3	NaThio
(Diss) TAL Metals SW6010C/7470A	250 mL Plastic	1	None
Total TAL Metals 6010C	250 mL Plastic	1	HNO3

Comments:
Well Casing Volume Conversion

Well diameter 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
(inches) = gallons 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65
per foot

Well Information

Well Location: MW-9 Well Locked at Arrival: yes
Condition of Well: Good Well Locked at Departure: yes

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius

Well Completion: _____

Key Number To Well: _____

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

mS/cm = millisiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius

Project Number	GP18BPWC.WA48	Well ID	MW-1	Date	2/22/2019
Project Name/Location	WA-11060			Weather(°F)	Cloudy
Measuring Pt. Description	Top of Casing	Screen Setting (ft-bmp)		Casing Diameter (in.)	4
Static Water Level (ft-bmp)	26.33	Total Depth (ft-bmp)	27.32	Water Column (ft)	0.99
MP Elevation		Pump Intake (ft-bmp)	27	Purge Method:	Low-Flow
Sample Time:	10:15	Volumes Purged	0.66	Replicate/ Code No.	
Purge Start:	10:03	Gallons Purged	0.42	Sampled by	Alex Pink
Purge End:	10:11				

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
10:11		200	26.33	0.00	6.25	1149		2.5	12.1	125	Clear	No

Constituent Sampled	Container	Number	Preservative
TCL VOCs 8260B	40 mL Glass	3	HCL
GRO NWTPH-Gx	40 mL Glass	3	HCL
DRO NWTPH-Dx	40 mL Glass	2	HCL
EDB SV8011	40 mL Glass	3	NaThio
TCL SVOCs 8270 8270D SIM	40 mL Glass	2	None
Total TAL Metals 6010C	250 mL Plastic	1	HNO3
(Diss) TAL Metals SW6010C/7470A	250 mL Plastic	1	None

Comments: GRAB SAMPLE — insufficient water for low-flow purge. Grab sample collected with peristaltic pump.

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: MW-1	Well Locked at Arrival: yes
Condition of Well: Good	Well Locked at Departure: yes
Well Completion:	Key Number To Well:

ft-bmp = feet below measuring point
 in. = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Project Number GP18BPWC.WA48 Well ID MW-6 Date 2/22/2019

Project Name/Location WA-11060 Weather(°F) rain

Measuring Pt. Description	Top of Casing	Screen Setting (ft-bmp)		Casing Diameter (in.)	2	Well Material	
Static Water Level (ft-bmp)	14.14	Total Depth (ft-bmp)	29.1	Water Column (ft)	14.96	Gallons in Well	2.43
MP Elevation		Pump Intake (ft-bmp)	20	Purge Method:	Low-Flow	Sample Method	Low-Flow
Sample Time:	11:45	Volumes Purged	0.67	Replicate/ Code No.		Sampled by	Alex Pink
Purge Start:	11:08	Gallons Purged	1.64				
Purge End:	11:40						

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
11:12		200	14.14	0.21	5.57	372.2		7.47	12	56.1	Light green, cloudy	No
11:15	3	200	16.44	0.37	5.93	412.3		5.54	12.2	35.8	Light green, cloudy	No
11:18	3	200	16.8	0.53	6.1	445		5.32	12.1	28.5	Light green, cloudy	No
11:21	3	200	17.22	0.69	6.26	545.1		4.64	12.3	27.3	Light green, cloudy	No
11:24	3	200	17.62	0.85	6.19	606.8		4.62	12.1	27.9	Light green, cloudy	No
11:27	3	200	17.94	1.00	6.2	613.4		4.74	12.5	29.1	Light green, cloudy	No
11:30	3	200	18.26	1.16	6.19	697		4.69	12.4	31.3	Light green, cloudy	No
11:33	3	200	18.58	1.32	6.19	709		4.79	12.6	31.7	Light green, cloudy	No
11:36	3	200	18.88	1.48	6.2	738		5	12.4	33.1	Light green, cloudy	No
11:39	3	200	19.14	1.64	6.19	694		4.98	12.5	33.2	Light green, cloudy	No

Constituent Sampled	Container	Number	Preservative
TCL VOCs 8260B	40 mL Glass	3	HCL
GRO NWTPH-Gx	40 mL Glass	3	HCL
DRO NWTPH-Dx	40 mL Glass	2	HCL
TCL SVOCs 8270 8270D SIM	40 mL Glass	2	None
EDB SV8011	40 mL Glass	3	NaThio
Total TAL Metals 6010C	250 mL Plastic	1	HNO3
(Diss) TAL Metals SW6010C/7470A	250 mL Plastic	1	None

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius

Comments: Organic material - algae - in water

Well Casing Volume Conversion

Well diameter 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
(inches) = gallons 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65
per foot

Well Information

Well Location: MW-6	Well Locked at Arrival: yes
Condition of Well: Good	Well Locked at Departure: yes
Well Completion:	Key Number To Well:

Site:		WA-11060					
Date(s):		5/13/2019					
Sampler(s):		Kiley Zaubi					
Equipment:							
Well	Date	Time	Depth to Water (ft)	Well Depth (ft)	Depth to LNAPL (ft)	PID (ppmv)	Remarks
MW-6	5/13/2019	10:41:00	25.46	29.25	--	0.1	
MW-11	5/13/2019	10:36:00	25.97	31.5	--	2.9	
MW-12	5/13/2019	10:27:00	26.78	34	--	3572	
GWM-1	5/13/2019	10:17:00	25.24	34.42	--	273.2	
MW-9	5/13/2019	10:13:00	23.78	35.01	--	118.1	

Project Number GP18BPWC.WA48 **Well ID** MW-9 **Date** 5/13/2019

Project Name/Location WA-11060 **Weather(°F)** Overcast

Measuring Pt. Description	Top of Casing	Screen Setting (ft-bmp)		Casing Diameter (in.)	2	Well Material	
Static Water Level (ft-bmp)	23.78	Total Depth (ft-bmp)	35.01	Water Column (ft)	11.23	Gallons in Well	1.82
MP Elevation		Pump Intake (ft-bmp)	29	Purge Method:	Low-Flow	Sample Method	Low-Flow
Sample Time:	13:45	Volumes Purged	0.55	Replicate/ Code No.		Sampled by	Kiley Zaubi
Purge Start:	13:18	Gallons Purged	1.00				
Purge End:	13:44						

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
13:20		200	45.3	0.00	6.25	0.71		4.61	15.4	385.7	Rust	None
13:23	3	200	45.3	0.00	6.12	0.73		3.6	15.5	381.8	Rust	None
13:26	3	200	45.3	0.00	6.1	0.71		3.19	15.5	378.3	Rust	None
13:29	3	200	45.3	0.00	6.1	0.72		2.97	15.5	375.4	Rust	None
13:32	3	200	45.3	0.00	6.17	0.72		2.8	15.4	365.3	Rust	None
13:35	3	200	45.3	0.00	6.18	0.72		2.68	15.4	362	Rust	None
13:38	3	200	45.3	0.00	6.1	0.72		2.62	15.3	359.8	Rust	None
13:41	3	200	45.3	0.00	6.15	0.72		2.59	15.3	356.4	Rust	None
13:44	3	200	45.3	0.00	6.13	0.72		2.6	15.4	353.7	Rust	None

Constituent Sampled _____ **Container** _____ **Number** _____ **Preservative** _____

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: _____	Key Number To Well: _____

ft-bmp = feet below measuring point
 in. = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Project Number GP18BPWC.WA48 **Well ID** MW-11 **Date** 5/13/2019

Project Name/Location WA-11060 **Weather(°F)** Overcast

Measuring Pt. Description Top of Casing **Screen Setting (ft-bmp)** **Casing Diameter (in.)** 2 **Well Material**

Static Water Level (ft-bmp) 25.97 **Total Depth (ft-bmp)** 31.5 **Water Column (ft)** 5.53 **Gallons in Well** 0.9

MP Elevation **Pump Intake (ft-bmp)** 29 **Purge Method:** Low-Flow **Sample Method** Low-Flow

Sample Time: 15:15 **Volumes Purged** **Replicate/ Code No.** **Sampled by** Kiley Zaubi

Purge Start: 14:45 **Gallons Purged**

Purge End: 15:11

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
14:47		200	45.3	0.00	6.47	0.68		2.84	17	341.5	Clear	
14:50	3	200	45.3	0.00	6.44	0.69		2.61	16.8	342.7	Clear	
14:53	3	200	45.3	0.00	6.46	0.69		2.51	16.8	342.6	Clear	
14:56	3	200	45.3	0.00	6.46	0.7		2.35	16.9	342.3	Clear	
14:59	3	200	45.3	0.00	6.54	0.71		2.25	16.9	341.6	Clear	
15:02	3	200	45.3	0.00	6.48	0.71		2.18	17	340.6	Clear	
15:05	3	200	45.3	0.00	6.5	0.72		2.12	17	340	Clear	
15:08	3	200	45.3	0.00	6.57	0.72		2.1	17	339.7	Clear	
15:11	3	200	45.3	0.00	6.53	0.73		2.12	17	339.4	Clear	

Constituent Sampled **Container** **Number** **Preservative**

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: _____ Well Locked at Arrival: _____
 Condition of Well: _____ Well Locked at Departure: _____
 Well Completion: _____ Key Number To Well: _____

ft-bmp = feet below measuring point
 in. = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Project Number GP18BPWC.WA48 **Well ID** MW-12 **Date** 5/13/2019

Project Name/Location WA-11060 **Weather(°F)** Overcast

Measuring Pt. Description	Top of Casing	Screen Setting (ft-bmp)		Casing Diameter (in.)	2	Well Material	
Static Water Level (ft-bmp)	26.78	Total Depth (ft-bmp)	34	Water Column (ft)	7.22	Gallons in Well	1.17
MP Elevation		Pump Intake (ft-bmp)	30	Purge Method:	Low-Flow	Sample Method	Low-Flow
Sample Time:	16:20	Volumes Purged	0.85	Replicate/ Code No.		Sampled by	Kiley Zaubi
Purge Start:	15:57	Gallons Purged	1.00				
Purge End:	16:14						

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
15:57		200	45.3	0.00	6.6	0.64		2.69	16.6	340	Clear	None
16:00	3	200	45.3	0.00	6.55	0.61		2.44	16.6	333.9	Clear	None
16:03	3	200	45.3	0.00	6.53	0.586		2.21	16.5	326	Clear	None
16:06	3	200	45.3	0.00	6.48	0.59		2.07	16.7	319	Clear	None
16:09	3	200	45.3	0.00	6.48	0.6		2.07	16.8	316.2	Clear	None
16:12	3	200	45.3	0.00	6.52	0.64		2.06	17	309.4	Clear	None

Constituent Sampled	Container	Number	Preservative
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Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: _____	Key Number To Well: _____

ft-bmp = feet below measuring point
 in. = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Project Number	GP18BPWC.WA48	Well ID	GWM-1	Date	5/13/2019
Project Name/Location	WA-11060			Weather(°F)	Sunny
Measuring Pt. Description	Top of Casing	Screen Setting (ft-bmp)		Casing Diameter (in.)	2
Static Water Level (ft-bmp)	25.24	Total Depth (ft-bmp)	34.42	Water Column (ft)	9.18
MP Elevation		Pump Intake (ft-bmp)	30	Purge Method:	Low-Flow
				Sample Method	Low-Flow
Sample Time:	17:40	Volumes Purged	0.50	Replicate/ Code No.	
Purge Start:	17:07	Gallons Purged	0.75	Sampled by	Kiley Zaubi
Purge End:	17:35				

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
17:10		200	45.3	0.00	6.12	2.3		2.53	16.4	193.3	Gray with black material	Strong HClO
17:13	3	200	45.3	0.00	6.12	2.3		2.18	16.5	149.8	Gray with black material	Strong HClO
17:16	3	200	45.3	0.00	6.07	2.31		2.02	16.4	120.1	Gray with black material	Strong HClO
17:19	3	200	45.3	0.00	6.14	2.31		2.15	16.4	103.9	Gray with black material	Strong HClO
17:22	3	200	45.3	0.00	6.04	2.3		1.94	16.5	88.5	Gray with black material	Strong HClO
17:25	3	200	45.3	0.00	6.04	2.3		1.85	16.7	77.1	Gray with black material	Strong HClO
17:28	3	200	45.3	0.00	6.09	2.3		1.84	16.7	68.9	Gray with black material	Strong HClO
17:31	3	200	45.3	0.00	6.09	2.28		1.79	16.8	61.4	Gray with black material	Strong HClO
17:34	3	200	45.3	0.00	6.09	2.27		1.8	16.9	59.2	Gray with black material	Strong HClO

Constituent Sampled	Container	Number	Preservative
Comments:			

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location:	Well Locked at Arrival:
Condition of Well:	Well Locked at Departure:
Well Completion:	Key Number To Well:

ft-bmp = feet below measuring point
 in. = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Project Number	GP18BPWC.WA48	Well ID	MW-2	Date	5/14/2019
Project Name/Location	WA-11060			Weather(°F)	Raining
Measuring Pt. Description	Top of Casing	Screen Setting (ft-bmp)		Casing Diameter (in.)	4
Static Water Level (ft-bmp)	26.2	Total Depth (ft-bmp)	27.85	Water Column (ft)	1.65
MP Elevation		Pump Intake (ft-bmp)	27	Purge Method:	Low-Flow
				Sample Method	Low-Flow
Sample Time:	12:15	Volumes Purged	0.70	Replicate/ Code No.	DUP-1
Purge Start:	11:43	Gallons Purged	0.75	Sampled by	Kiley Zaubi
Purge End:	12:09				

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
11:44		200	45.3	0.00	6.49	0.572		5.26	15.8	402.7	Clear	None
11:47	3	200	45.3	0.00	6.65	0.547		5.35	15.6	394	Clear	None
11:50	3	200	45.3	0.00	6.74	0.513		5.51	15.7	386.6	Clear	None
11:53	3	200	45.3	0.00	6.78	0.489		5.58	15.7	382.2	Clear	None
11:56	3	200	45.3	0.00	6.8	0.478		5.29	15.7	380	Clear	None
11:59	3	200	45.3	0.00	6.81	0.466		4.8	15.7	378.1	Clear	None
12:02	3	200	45.3	0.00	6.78	0.456		4.28	15.7	376.6	Clear	None
12:05	3	200	45.3	0.00	6.75	0.453		3.98	15.7	375	Clear	None
12:08	3	200	45.3	0.00	6.75	0.438		3.92	15.7	373.8	Clear	None

Constituent Sampled	Container	Number	Preservative
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Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47

1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: _____	Key Number To Well: _____

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius

Project Number GP18BPWC.WA48 **Well ID** MW-3 **Date** 5/14/2019

Project Name/Location WA-11060 **Weather(°F)** Overcast

Measuring Pt. Description	Top of Casing	Screen Setting (ft-bmp)		Casing Diameter (in.)	4	Well Material	
Static Water Level (ft-bmp)	25.42	Total Depth (ft-bmp)	33.9	Water Column (ft)	8.48	Gallons in Well	5.51
MP Elevation		Pump Intake (ft-bmp)	28	Purge Method:	Low-Flow	Sample Method	Low-Flow
Sample Time:	13:40	Volumes Purged		Replicate/ Code No.		Sampled by	Kiley Zaubi
Purge Start:	13:22	Gallons Purged					
Purge End:	13:38						

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
13:25		200	45.3	0.00	6.45	0.499		10.47	15.8	379.1	Clear	
13:29	4	200	45.3	0.00	6.42	0.498		8.93	15.7	377.9	Clear	
13:32	3	200	45.3	0.00	6.4	0.498		8.46	15.7	376.4	Clear	
13:35	3	200	45.3	0.00	6.4	0.498		8.35	15.7	375.5	Clear	
13:38	3	200	45.3	0.00	6.4	0.498		8.3	15.7	374.4	Clear	

Constituent Sampled	Container	Number	Preservative
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Comments:

Well Casing Volume Conversion

Well diameter 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
 (inches) = gallons 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65
 per foot

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: _____	Key Number To Well: _____

ft-bmp = feet below measuring point
 in. = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Project Number	GP18BPWC.WA48	Well ID	MW-4	Date	5/14/2019
Project Name/Location	WA-11060			Weather(°F)	Raining
Measuring Pt. Description	Top of Casing	Screen Setting (ft-bmp)		Casing Diameter (in.)	4
Static Water Level (ft-bmp)	26.33	Total Depth (ft-bmp)	27.5	Water Column (ft)	1.17
MP Elevation		Pump Intake (ft-bmp)	27	Purge Method:	Low-Flow
				Sample Method	Low-Flow
Sample Time:	#Error	Volumes Purged		Replicate/ Code No.	
Purge Start:	14:38	Gallons Purged		Sampled by	Kiley Zaubi
Purge End:	14:56				

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
14:40		200	45.3	0.00	6.29	1.6	0	2.49	16.7	79.5	Gray with black material	Strong HClO
14:43	3	200	45.3	0.00	6.32	1.61	0	2.63	16.4	29	Gray with black material	Strong HClO
14:46	3	200	45.3	0.00	6.34	1.61	0	2.54	16.3	-11.2	Gray with black material	Strong HClO
14:50	4	200	45.3	0.00	6.35	1.58	0	2.45	16.2	-38.1	Gray with black material	Strong HClO

Constituent Sampled	Container	Number	Preservative
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Comments: Well purged approximately 0.33 gallons of water without stabilizing and then ran dry. Was not able to sample.

Well Casing Volume Conversion

Well diameter 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
 (inches) = gallons 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65
 per foot

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: _____	Key Number To Well: _____

ft-bmp = feet below measuring point
 in. = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Project Number	GP18BPWC.WA48	Well ID	MW-5	Date	5/14/2019
Project Name/Location	WA-11060			Weather(°F)	Raining
Measuring Pt. Description	Top of Casing	Screen Setting (ft-bmp)		Casing Diameter (in.)	4
Static Water Level (ft-bmp)	27.24	Total Depth (ft-bmp)	27.55	Water Column (ft)	0.31
MP Elevation		Pump Intake (ft-bmp)	27.5	Purge Method:	No-Purge
				Sample Method	No-Purge
Sample Time:	16:20	Volumes Purged		Replicate/ Code No.	
Purge Start:	NA	Gallons Purged		Sampled by	Kiley Zaubi
Purge End:	NA				

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
16:15		200	45.3	0.00	6.9	0.8		5.47	16.5	157	Black	Strong HClO

Constituent Sampled	Container	Number	Preservative
Comments:			

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47

1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location:	Well Locked at Arrival:
Condition of Well:	Well Locked at Departure:
Well Completion:	Key Number To Well:

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius

Project Number GP18BPWC.WA48 **Well ID** MW-1 **Date** 5/14/2019

Project Name/Location WA-11060 **Weather(°F)** Overcast

Measuring Pt. Description Top of Casing **Screen Setting (ft-bmp)** **Casing Diameter (in.)** 4 **Well Material**

Static Water Level (ft-bmp) 26.7 **Total Depth (ft-bmp)** 27.2 **Water Column (ft)** 0.50 **Gallons in Well** 0.32

MP Elevation **Pump Intake (ft-bmp)** 27 **Purge Method:** No-Purge **Sample Method** No-Purge

Sample Time: 17:20 **Volumes Purged** **Replicate/ Code No.** **Sampled by** Kiley Zaubi

Purge Start: NA **Gallons Purged**

Purge End: NA

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
17:28		200	45.3	0.00							Gray with black material	Strong HClO

Constituent Sampled **Container** **Number** **Preservative**

Comments:

Well Casing Volume Conversion

Well diameter 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
(inches) = gallons 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65
per foot

Well Information

Well Location: _____ Well Locked at Arrival: _____
Condition of Well: _____ Well Locked at Departure: _____
Well Completion: _____ Key Number To Well: _____

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius

Site:		WA-11060					
Date(s):		8/27/2019					
Sampler(s):		Andrew Smith					
Equipment:		oil/water interface probe					
Well	Date	Time	Depth to Water (ft)	Well Depth (ft)	Depth to LNAPL (ft)	PID (ppmv)	Remarks
EW-3	8/27/2019	10:55:00	27.98	30.58	0	55.5	
EW-1	8/27/2019	10:45:00	27.83	30.39	0	3.4	
EW-2	8/27/2019	10:36:00	27.65	29.96	0	2.2	
MW-3	8/27/2019	10:30:00	26.38	30	0	0.7	
MW-5	8/27/2019	10:11:00	27.4	27.74	0	1.3	
MW-6	8/27/2019	10:04:00	26.73	28.54	0	0.1	
MW-1	8/27/2019	09:56:00	27.2	27.34	0	5.9	
MW-9	8/27/2019	09:27:00	25.09	35.1	0	1	
GWM-1	8/27/2019	09:32:00	26.68	34.2	0	580.2	
MW-12	8/27/2019	09:39:00	27.82	29.6	0	2310	
MW-11	8/27/2019	09:43:00	26.83	30.1	0	3.2	
MW-2	8/27/2019	10:58:00	27.3	27.9	0	0	
MW-4	8/27/2019	10:42:00	26.51	27.45	0	3.1	

Site:		WA-11060					
Date(s):		11/25/2019					
Sampler(s):		Dan Gilbert					
Equipment:		oil/water interface probe					
Well	Date	Time	Depth to Water (ft)	Well Depth (ft)	LNAPL Thickness (ft)	PID (ppmv)	Remarks
EW-1	11/25/2019	11:17:00	27.84	30	0	0.1	
EW-2	11/25/2019	11:24:00	27.81	29.81	0	0.1	
EW-3	11/25/2019	11:28:00	27.98	30	0	1.1	
GWM-1	11/25/2019	10:30:00	26.95	34.42	0.05	652	
MW-1	11/25/2019	11:05:00	27.21	27.31	0	60.5	
MW-11	11/25/2019	10:42:00	27.13	31.5	0	0.2	
MW-12	11/25/2019	10:37:00	28.19	34	0	346.6	
MW-2	11/25/2019	11:54:00	27.29	27.85	0	0	
MW-3	11/25/2019	11:36:00	24.7	33.9	0	0	
MW-4	11/25/2019	10:21:00	26.51	27.1	0	10	
MW-5	11/25/2019	11:10:00	27.55	27.71	0	0.2	
MW-6	11/25/2019	10:50:00	26.86	29.25	0	0	
MW-9	11/25/2019	10:55:00	25.6	35.01	0	0.1	

Project Number	30014464	Well ID	MW-3	Date	11/25/2019
Project Name/Location	WA-11060			Weather(°F)	Sunny
Measuring Pt. Description	Top of Casing	Screen Setting (ft-bmp)		Casing Diameter (in.)	4
Static Water Level (ft-bmp)	24.7	Total Depth (ft-bmp)	33.9	Water Column (ft)	9.20
MP Elevation		Pump Intake (ft-bmp)	25	Purge Method:	Low-Flow
				Sample Method	Low-Flow
Sample Time:	14:40	Volumes Purged		Replicate/ Code No.	Dup-1
Purge Start:	14:07	Gallons Purged		Sampled by	Riku Kusakabe
Purge End:	#Error				

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
14:09		200	24.7	0.11	6.71	0.278		21.8	15	138.2	Clear	
14:19	10	200	25.57	0.63	6.08	0.276		11.43	15.4	140.4	Clear	
14:22	3	200	24.7	0.79	6.03	0.279		10.72	15.4	141.3	Clear	
14:25	3	200	24.7	0.95	6.03	0.279		10.71	15.4	141.7	Clear	

Constituent Sampled	Container	Number	Preservative
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Comments: No bolts in place

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: _____	Well Locked at Arrival: no _____
Condition of Well: Fine _____	Well Locked at Departure: no _____
Well Completion: _____	Key Number To Well: _____

ft-bmp = feet below measuring point
 in. = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Project Number	30014464	Well ID	MW-11	Date	11/25/2019
Project Name/Location	WA-11060			Weather(°F)	Partly cloudy
Measuring Pt. Description	Top of Casing	Screen Setting (ft-bmp)		Casing Diameter (in.)	2
Static Water Level (ft-bmp)	27.13	Total Depth (ft-bmp)	31.5	Water Column (ft)	4.37
MP Elevation		Pump Intake (ft-bmp)	28	Purge Method:	Low-Flow
				Sample Method	Low-Flow
Sample Time:	12:36	Volumes Purged	1.93	Replicate/ Code No.	
Purge Start:	12:00	Gallons Purged	1.37	Sampled by	Dan Gilbert
Purge End:	12:30				

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
12:05		200	27.49	0.05	6.01	0.8		15.12	15.8	133.6	Clear	
12:12	7	200	27.66	0.42	6.14	0.8		4.22	15.8	115.3	Clear	
12:15	3	200	27.71	0.58	6.17	0.79		3.18	15.5	109.3	Clear	
12:18	3	200	27.74	0.74	6.18	0.78		2.9	15.8	105.5	Clear	
12:21	3	200	27.79	0.90	6.18	0.79		2.73	15.7	102.1	Clear	
12:25	4	200	27.83	1.11	6.18	0.79		2.62	15.8	98.1	Clear	
12:28	3	200	27.86	1.27	6.18	0.79		2.55	16	95.5	Clear	

Constituent Sampled	Container	Number	Preservative
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Comments:
Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04	1.5 = 0.09	2.5 = 0.26	3.5 = 0.50	6 = 1.47
1.25 = 0.06	2 = 0.16	3 = 0.37	4 = 0.65	

Well Information

Well Location: Alley	Well Locked at Arrival: yes
Condition of Well: Good	Well Locked at Departure: yes
Well Completion:	Key Number To Well:

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius

Project Number	30014464	Well ID	MW-12	Date	11/25/2019
Project Name/Location	WA-11060			Weather(°F)	Cloudy
Measuring Pt. Description	Top of Casing	Screen Setting (ft-bmp)		Casing Diameter (in.)	2
Static Water Level (ft-bmp)	28.19	Total Depth (ft-bmp)	34	Water Column (ft)	5.81
MP Elevation		Pump Intake (ft-bmp)	32	Purge Method:	No-Purge
				Sample Method	Grab
Sample Time:	12:40	Volumes Purged		Replicate/ Code No.	
Purge Start:	#Error	Gallons Purged			
Purge End:	#Error				

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
12:40				0.00							Grey	

Constituent Sampled	Container	Number	Preservative
Comments:			

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: Alley	Well Locked at Arrival: yes
Condition of Well: Fine	Well Locked at Departure: yes
Well Completion:	Key Number To Well:

Project Number	30014464	Well ID	MW-2	Date	11/26/2019
Project Name/Location	WA-11060			Weather(°F)	Cloudy
Measuring Pt. Description	Top of Casing	Screen Setting (ft-bmp)		Casing Diameter (in.)	4
Static Water Level (ft-bmp)	27.29	Total Depth (ft-bmp)	27.85	Water Column (ft)	0.56
MP Elevation		Pump Intake (ft-bmp)	27.8	Purge Method:	No-Purge
				Sample Method	Grab
Sample Time:	10:10	Volumes Purged		Replicate/ Code No.	
Purge Start:	#Error	Gallons Purged		Sampled by	Dan Gilbert
Purge End:	#Error				

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
10:10				0.00							Grey	

Constituent Sampled	Container	Number	Preservative
Comments:			

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47

1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location:	Well Locked at Arrival: yes
Condition of Well: Fine	Well Locked at Departure: yes
Well Completion:	Key Number To Well:

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius

Project Number	30014464	Well ID	MW-9	Date	11/26/2019
Project Name/Location	WA-11060			Weather(°F)	Cloudy
Measuring Pt. Description	Top of Casing	Screen Setting (ft-bmp)		Casing Diameter (in.)	2
Static Water Level (ft-bmp)	25.53	Total Depth (ft-bmp)	35.01	Water Column (ft)	9.48
MP Elevation		Pump Intake (ft-bmp)	27	Purge Method:	Low-Flow
				Sample Method	Low-Flow
Sample Time:	09:20	Volumes Purged	0.57	Replicate/ Code No.	
Purge Start:	08:57	Gallons Purged	0.87	Sampled by	Riku Kusakabe
Purge End:	09:19				

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
08:58		150	25.53	0.08	5.96	0.73		5.17	14	170.4	Clear	None
09:01	3	150	25.75	0.16	6	0.77		3.59	14.3	157.4	Clear	None
09:05	4	150	25.82	0.32	6.07	0.78		2.86	14.4	146	Clear	None
09:09	4	150	25.82	0.48	6.08	0.78		2.53	14.6	136.4	Clear	None
09:12	3	150	25.82	0.59	6.09	0.78		2.46	14.5	131.2	Clear	None
09:15	3	150	25.89	0.71	6.1	0.77		2.39	14.6	126.3	Clear	None
09:18	3	150	25.89	0.83	6.1	0.77		2.33	14.5	121.7	Clear	None

Constituent Sampled	Container	Number	Preservative
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Comments:
Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04	1.5 = 0.09	2.5 = 0.26	3.5 = 0.50	6 = 1.47
1.25 = 0.06	2 = 0.16	3 = 0.37	4 = 0.65	

Well Information

Well Location: Center of Medical clinic parking lot	Well Locked at Arrival: no
Condition of Well: Okay, Only one screw	Well Locked at Departure: no
Well Completion:	Key Number To Well:

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius

Project Number	30014464	Well ID	MW-6	Date	11/26/2019
Project Name/Location	WA-11060			Weather(°F)	Cloudy
Measuring Pt. Description	Top of Casing	Screen Setting (ft-bmp)		Casing Diameter (in.)	2
Static Water Level (ft-bmp)	26.86	Total Depth (ft-bmp)	29.25	Water Column (ft)	2.39
MP Elevation		Pump Intake (ft-bmp)	27	Purge Method:	Low-Flow
				Sample Method	Low-Flow
Sample Time:	#Error	Volumes Purged	2.37	Replicate/ Code No.	
Purge Start:	10:26	Gallons Purged	0.92	Sampled by	Riku Kusakabe
Purge End:	10:50				

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
											Color	Odor
10:30		150	27.78	0.16	5.45	0.244		3.35	14.8	133		
10:35	5	150	27.78	0.36	5.46	0.233		3.17	14.9	128		
10:40	5	150	28.4	0.55	5.48	0.248		2.2	14.6	122		
10:45	5	150	28.4	0.75	5.43	0.239		2.3	14.8	117.9		
10:48	3	150	28.43	0.87	5.38	0.241		2.58	13.6	116.9		

Constituent Sampled	Container	Number	Preservative
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Comments: Water is red, being pumped in bursts and a lot of air. Called PM, did not sample

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: In the bushes, north end of site	Well Locked at Arrival: no
Condition of Well: Bolts don't screw	Well Locked at Departure: no
Well Completion:	Key Number To Well:

ft-bmp = feet below measuring point
 in. = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

ATTACHMENT B

Laboratory Report and Chain of Custody Documents



March 11, 2019

ARCADIS US - Seattle, WA

Sample Delivery Group: L1072951
Samples Received: 02/23/2019
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:



Jared Starkey
Project Manager

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 Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



GMW-1 L1072951-01 GW

				Collected by Alex Pink	Collected date/time 02/20/19 16:40	Received date/time 02/23/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1241438	1	02/26/19 13:26	02/27/19 17:00	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1241594	1	02/26/19 10:46	02/27/19 16:04	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1241795	1	02/26/19 15:15	02/26/19 15:15	ACE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1241407	1	02/23/19 23:26	02/23/19 23:26	JHH	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1242036	1	02/26/19 09:14	02/26/19 20:23	HMH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1241369	1	02/24/19 12:26	02/24/19 20:52	SHG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1241544	1	02/24/19 17:38	02/25/19 04:12	LEA	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

MW-2 L1072951-02 GW

				Collected by Alex Pink	Collected date/time 02/20/19 15:30	Received date/time 02/23/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1241438	1	02/26/19 13:26	02/27/19 17:02	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1241594	1	02/26/19 10:46	02/27/19 16:06	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1241795	1	02/26/19 15:46	02/26/19 15:46	ACE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1241407	1	02/23/19 23:47	02/23/19 23:47	JHH	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1242036	1	02/26/19 09:14	02/26/19 19:58	HMH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1241369	1	02/24/19 12:26	02/24/19 21:12	SHG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1241544	1	02/24/19 17:38	02/25/19 04:32	LEA	Mt. Juliet, TN

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

MW-9 L1072951-03 GW

				Collected by Alex Pink	Collected date/time 02/20/19 14:10	Received date/time 02/23/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1241438	1	02/26/19 13:26	02/27/19 17:05	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1241594	1	02/26/19 10:46	02/27/19 14:46	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1243694	1	03/01/19 04:44	03/01/19 04:44	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1241407	1	02/24/19 00:09	02/24/19 00:09	JHH	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1242036	1	02/26/19 09:14	02/26/19 21:36	HMH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1241369	1	02/24/19 12:26	02/24/19 21:33	SHG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1241544	1	02/24/19 17:38	02/25/19 04:53	LEA	Mt. Juliet, TN

MW-11 L1072951-04 GW

				Collected by Alex Pink	Collected date/time 02/20/19 13:05	Received date/time 02/23/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1241438	1	02/26/19 13:26	02/27/19 17:08	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1241594	1	02/26/19 10:46	02/27/19 14:49	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1241795	1	02/26/19 16:33	02/26/19 16:33	ACE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1241407	1	02/24/19 00:30	02/24/19 00:30	JHH	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1242036	1	02/26/19 09:14	02/26/19 21:49	HMH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1241369	1	02/24/19 12:26	02/28/19 16:35	SHG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1241544	1	02/24/19 17:38	02/25/19 05:14	LEA	Mt. Juliet, TN

MW-12 L1072951-05 GW

				Collected by Alex Pink	Collected date/time 02/20/19 17:30	Received date/time 02/23/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1241438	1	02/26/19 13:26	02/27/19 17:10	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1241594	1	02/26/19 10:46	02/27/19 14:51	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1241924	1	02/26/19 05:42	02/26/19 05:42	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1241407	1	02/24/19 00:51	02/24/19 00:51	JHH	Mt. Juliet, TN

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-12 L1072951-05 GW

				Collected by Alex Pink	Collected date/time 02/20/19 17:30	Received date/time 02/23/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
EDB / DBCP by Method 8011	WG1242036	1	02/26/19 09:14	02/26/19 22:01	HMH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1241369	1	02/24/19 12:26	02/28/19 16:54	TH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1241544	1	02/24/19 17:38	02/25/19 05:34	LEA	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

DUP-1 L1072951-06 GW

				Collected by Alex Pink	Collected date/time 02/20/19 00:00	Received date/time 02/23/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1241924	1	02/26/19 06:05	02/26/19 06:05	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1241407	1	02/24/19 01:13	02/24/19 01:13	JHH	Mt. Juliet, TN

MW-1 L1072951-07 GW

				Collected by Alex Pink	Collected date/time 02/22/19 10:15	Received date/time 02/23/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1241438	1	02/26/19 13:26	02/27/19 15:00	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1241594	1	02/26/19 10:46	02/27/19 14:54	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1241924	1	02/26/19 06:26	02/26/19 06:26	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1241407	1	02/24/19 01:34	02/24/19 01:34	JHH	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1242036	1	02/26/19 09:14	02/26/19 22:37	HMH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1241369	1	02/24/19 12:26	02/28/19 17:13	TH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1241544	1	02/24/19 17:38	02/25/19 05:55	LEA	Mt. Juliet, TN

MW-6 L1072951-08 GW

				Collected by Alex Pink	Collected date/time 02/22/19 11:45	Received date/time 02/23/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1241438	1	02/26/19 13:26	02/27/19 15:02	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1241594	1	02/26/19 10:46	02/27/19 14:57	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1241924	1	02/26/19 06:49	02/26/19 06:49	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1241407	1	02/24/19 01:55	02/24/19 01:55	JHH	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1242036	1	02/26/19 09:14	02/26/19 22:50	HMH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1241369	1	02/24/19 12:26	02/24/19 22:53	SHG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1241544	1	02/24/19 17:38	02/25/19 09:11	LEA	Mt. Juliet, TN

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All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.

Jared Starkey
Project Manager

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	U		1.90	5.00	1	02/27/2019 16:04	WG1241594
Lead,Dissolved	U		1.90	5.00	1	02/27/2019 17:00	WG1241438

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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	773	<u>B</u>	31.6	100	1	02/26/2019 15:15	WG1241795
(S) a,a,a-Trifluorotoluene(FID)	82.2			78.0-120		02/26/2019 15:15	WG1241795

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	02/23/2019 23:26	WG1241407
Toluene	U		0.412	1.00	1	02/23/2019 23:26	WG1241407
Ethylbenzene	U		0.384	1.00	1	02/23/2019 23:26	WG1241407
Total Xylenes	U		1.06	3.00	1	02/23/2019 23:26	WG1241407
Methyl tert-butyl ether	U		0.367	1.00	1	02/23/2019 23:26	WG1241407
1,2-Dichloroethane	U		0.361	1.00	1	02/23/2019 23:26	WG1241407
(S) Toluene-d8	104			80.0-120		02/23/2019 23:26	WG1241407
(S) a,a,a-Trifluorotoluene	92.3			80.0-120		02/23/2019 23:26	WG1241407
(S) 4-Bromofluorobenzene	113			77.0-126		02/23/2019 23:26	WG1241407
(S) 1,2-Dichloroethane-d4	109			70.0-130		02/23/2019 23:26	WG1241407

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00240	0.0100	1	02/26/2019 20:23	WG1242036

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)	143	<u>J</u>	66.7	200	1	02/24/2019 20:52	WG1241369
Residual Range Organics (RRO)	U		83.3	250	1	02/24/2019 20:52	WG1241369
(S) o-Terphenyl	95.8			52.0-156		02/24/2019 20:52	WG1241369

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	02/25/2019 04:12	WG1241544
Benzo(a)pyrene	U		0.0116	0.0500	1	02/25/2019 04:12	WG1241544
Benzo(b)fluoranthene	U		0.00212	0.0500	1	02/25/2019 04:12	WG1241544
Benzo(k)fluoranthene	U		0.0136	0.0500	1	02/25/2019 04:12	WG1241544
Chrysene	U		0.0108	0.0500	1	02/25/2019 04:12	WG1241544
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	02/25/2019 04:12	WG1241544
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	02/25/2019 04:12	WG1241544
Naphthalene	U		0.0198	0.250	1	02/25/2019 04:12	WG1241544
1-Methylnaphthalene	0.0121	<u>J</u>	0.00821	0.250	1	02/25/2019 04:12	WG1241544
2-Methylnaphthalene	0.0240	<u>J</u>	0.00902	0.250	1	02/25/2019 04:12	WG1241544
(S) Nitrobenzene-d5	91.0			31.0-160		02/25/2019 04:12	WG1241544
(S) 2-Fluorobiphenyl	80.0			48.0-148		02/25/2019 04:12	WG1241544
(S) p-Terphenyl-d14	102			37.0-146		02/25/2019 04:12	WG1241544



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	U		1.90	5.00	1	02/27/2019 16:06	WG1241594
Lead,Dissolved	U		1.90	5.00	1	02/27/2019 17:02	WG1241438

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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	85.8	<u>B</u>	31.6	100	1	02/26/2019 15:46	WG1241795
(S) a,a,a-Trifluorotoluene(FID)	110			78.0-120		02/26/2019 15:46	WG1241795

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	02/23/2019 23:47	WG1241407
Toluene	U		0.412	1.00	1	02/23/2019 23:47	WG1241407
Ethylbenzene	U		0.384	1.00	1	02/23/2019 23:47	WG1241407
Total Xylenes	U		1.06	3.00	1	02/23/2019 23:47	WG1241407
Methyl tert-butyl ether	U		0.367	1.00	1	02/23/2019 23:47	WG1241407
1,2-Dichloroethane	U		0.361	1.00	1	02/23/2019 23:47	WG1241407
(S) Toluene-d8	100			80.0-120		02/23/2019 23:47	WG1241407
(S) a,a,a-Trifluorotoluene	90.7			80.0-120		02/23/2019 23:47	WG1241407
(S) 4-Bromofluorobenzene	93.5			77.0-126		02/23/2019 23:47	WG1241407
(S) 1,2-Dichloroethane-d4	108			70.0-130		02/23/2019 23:47	WG1241407

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00240	0.0100	1	02/26/2019 19:58	WG1242036

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)	199	<u>J</u>	66.7	200	1	02/24/2019 21:12	WG1241369
Residual Range Organics (RRO)	175	<u>J</u>	83.3	250	1	02/24/2019 21:12	WG1241369
(S) o-Terphenyl	95.8			52.0-156		02/24/2019 21:12	WG1241369

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	02/25/2019 04:32	WG1241544
Benzo(a)pyrene	U		0.0116	0.0500	1	02/25/2019 04:32	WG1241544
Benzo(b)fluoranthene	U		0.00212	0.0500	1	02/25/2019 04:32	WG1241544
Benzo(k)fluoranthene	U		0.0136	0.0500	1	02/25/2019 04:32	WG1241544
Chrysene	U		0.0108	0.0500	1	02/25/2019 04:32	WG1241544
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	02/25/2019 04:32	WG1241544
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	02/25/2019 04:32	WG1241544
Naphthalene	U		0.0198	0.250	1	02/25/2019 04:32	WG1241544
1-Methylnaphthalene	0.00849	<u>J</u>	0.00821	0.250	1	02/25/2019 04:32	WG1241544
2-Methylnaphthalene	0.0174	<u>J</u>	0.00902	0.250	1	02/25/2019 04:32	WG1241544
(S) Nitrobenzene-d5	119			31.0-160		02/25/2019 04:32	WG1241544
(S) 2-Fluorobiphenyl	102			48.0-148		02/25/2019 04:32	WG1241544
(S) p-Terphenyl-d14	119			37.0-146		02/25/2019 04:32	WG1241544



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	U		1.90	5.00	1	02/27/2019 14:46	WG1241594
Lead,Dissolved	U		1.90	5.00	1	02/27/2019 17:05	WG1241438

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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	36.7	<u>B</u>	31.6	100	1	03/01/2019 04:44	WG1243694
(S) a,a,a-Trifluorotoluene(FID)	94.9			78.0-120		03/01/2019 04:44	WG1243694

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	02/24/2019 00:09	WG1241407
Toluene	U		0.412	1.00	1	02/24/2019 00:09	WG1241407
Ethylbenzene	U		0.384	1.00	1	02/24/2019 00:09	WG1241407
Total Xylenes	U		1.06	3.00	1	02/24/2019 00:09	WG1241407
Methyl tert-butyl ether	U		0.367	1.00	1	02/24/2019 00:09	WG1241407
1,2-Dichloroethane	U		0.361	1.00	1	02/24/2019 00:09	WG1241407
(S) Toluene-d8	98.7			80.0-120		02/24/2019 00:09	WG1241407
(S) a,a,a-Trifluorotoluene	92.8			80.0-120		02/24/2019 00:09	WG1241407
(S) 4-Bromofluorobenzene	89.4			77.0-126		02/24/2019 00:09	WG1241407
(S) 1,2-Dichloroethane-d4	109			70.0-130		02/24/2019 00:09	WG1241407

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00240	0.0100	1	02/26/2019 21:36	WG1242036

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)	116	<u>J</u>	66.7	200	1	02/24/2019 21:33	WG1241369
Residual Range Organics (RRO)	120	<u>J</u>	83.3	250	1	02/24/2019 21:33	WG1241369
(S) o-Terphenyl	100			52.0-156		02/24/2019 21:33	WG1241369

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	02/25/2019 04:53	WG1241544
Benzo(a)pyrene	U		0.0116	0.0500	1	02/25/2019 04:53	WG1241544
Benzo(b)fluoranthene	U		0.00212	0.0500	1	02/25/2019 04:53	WG1241544
Benzo(k)fluoranthene	U		0.0136	0.0500	1	02/25/2019 04:53	WG1241544
Chrysene	U		0.0108	0.0500	1	02/25/2019 04:53	WG1241544
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	02/25/2019 04:53	WG1241544
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	02/25/2019 04:53	WG1241544
Naphthalene	U		0.0198	0.250	1	02/25/2019 04:53	WG1241544
1-Methylnaphthalene	U		0.00821	0.250	1	02/25/2019 04:53	WG1241544
2-Methylnaphthalene	0.0150	<u>J</u>	0.00902	0.250	1	02/25/2019 04:53	WG1241544
(S) Nitrobenzene-d5	108			31.0-160		02/25/2019 04:53	WG1241544
(S) 2-Fluorobiphenyl	92.5			48.0-148		02/25/2019 04:53	WG1241544
(S) p-Terphenyl-d14	110			37.0-146		02/25/2019 04:53	WG1241544



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	U		1.90	5.00	1	02/27/2019 14:49	WG1241594
Lead,Dissolved	U		1.90	5.00	1	02/27/2019 17:08	WG1241438

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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	132	<u>B</u>	31.6	100	1	02/26/2019 16:33	WG1241795
(S) a,a,a-Trifluorotoluene(FID)	110			78.0-120		02/26/2019 16:33	WG1241795

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	02/24/2019 00:30	WG1241407
Toluene	U		0.412	1.00	1	02/24/2019 00:30	WG1241407
Ethylbenzene	U		0.384	1.00	1	02/24/2019 00:30	WG1241407
Total Xylenes	U		1.06	3.00	1	02/24/2019 00:30	WG1241407
Methyl tert-butyl ether	1.04		0.367	1.00	1	02/24/2019 00:30	WG1241407
1,2-Dichloroethane	U		0.361	1.00	1	02/24/2019 00:30	WG1241407
(S) Toluene-d8	104			80.0-120		02/24/2019 00:30	WG1241407
(S) a,a,a-Trifluorotoluene	95.2			80.0-120		02/24/2019 00:30	WG1241407
(S) 4-Bromofluorobenzene	91.9			77.0-126		02/24/2019 00:30	WG1241407
(S) 1,2-Dichloroethane-d4	107			70.0-130		02/24/2019 00:30	WG1241407

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00240	0.0100	1	02/26/2019 21:49	WG1242036

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)	354		66.7	200	1	02/28/2019 16:35	WG1241369
Residual Range Organics (RRO)	466		83.3	250	1	02/28/2019 16:35	WG1241369
(S) o-Terphenyl	211	<u>J1</u>		52.0-156		02/28/2019 16:35	WG1241369

Sample Narrative:

L1072951-04 WG1241369: Duplicate analysis was performed.

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	02/25/2019 05:14	WG1241544
Benzo(a)pyrene	U		0.0116	0.0500	1	02/25/2019 05:14	WG1241544
Benzo(b)fluoranthene	U		0.00212	0.0500	1	02/25/2019 05:14	WG1241544
Benzo(k)fluoranthene	U		0.0136	0.0500	1	02/25/2019 05:14	WG1241544
Chrysene	U		0.0108	0.0500	1	02/25/2019 05:14	WG1241544
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	02/25/2019 05:14	WG1241544
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	02/25/2019 05:14	WG1241544
Naphthalene	U		0.0198	0.250	1	02/25/2019 05:14	WG1241544
1-Methylnaphthalene	0.00930	<u>J</u>	0.00821	0.250	1	02/25/2019 05:14	WG1241544
2-Methylnaphthalene	U		0.00902	0.250	1	02/25/2019 05:14	WG1241544
(S) Nitrobenzene-d5	103			31.0-160		02/25/2019 05:14	WG1241544

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) 2-Fluorobiphenyl	103			48.0-148		02/25/2019 05:14	WG1241544
(S) p-Terphenyl-d14	117			37.0-146		02/25/2019 05:14	WG1241544

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	U		1.90	5.00	1	02/27/2019 14:51	WG1241594
Lead,Dissolved	U		1.90	5.00	1	02/27/2019 17:10	WG1241438

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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	3370		31.6	100	1	02/26/2019 05:42	WG1241924
(S) a,a,a-Trifluorotoluene(FID)	97.3			78.0-120		02/26/2019 05:42	WG1241924

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	4.91		0.331	1.00	1	02/24/2019 00:51	WG1241407
Toluene	U		0.412	1.00	1	02/24/2019 00:51	WG1241407
Ethylbenzene	2.81		0.384	1.00	1	02/24/2019 00:51	WG1241407
Total Xylenes	2.54	J	1.06	3.00	1	02/24/2019 00:51	WG1241407
Methyl tert-butyl ether	U		0.367	1.00	1	02/24/2019 00:51	WG1241407
1,2-Dichloroethane	U		0.361	1.00	1	02/24/2019 00:51	WG1241407
(S) Toluene-d8	111			80.0-120		02/24/2019 00:51	WG1241407
(S) a,a,a-Trifluorotoluene	85.2			80.0-120		02/24/2019 00:51	WG1241407
(S) 4-Bromofluorobenzene	106			77.0-126		02/24/2019 00:51	WG1241407
(S) 1,2-Dichloroethane-d4	114			70.0-130		02/24/2019 00:51	WG1241407

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00240	0.0100	1	02/26/2019 22:01	WG1242036

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)	486		66.7	200	1	02/28/2019 16:54	WG1241369
Residual Range Organics (RRO)	206	J	83.3	250	1	02/28/2019 16:54	WG1241369
(S) o-Terphenyl	106			52.0-156		02/28/2019 16:54	WG1241369

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	02/25/2019 05:34	WG1241544
Benzo(a)pyrene	U		0.0116	0.0500	1	02/25/2019 05:34	WG1241544
Benzo(b)fluoranthene	U		0.00212	0.0500	1	02/25/2019 05:34	WG1241544
Benzo(k)fluoranthene	U		0.0136	0.0500	1	02/25/2019 05:34	WG1241544
Chrysene	U		0.0108	0.0500	1	02/25/2019 05:34	WG1241544
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	02/25/2019 05:34	WG1241544
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	02/25/2019 05:34	WG1241544
Naphthalene	4.81		0.0198	0.250	1	02/25/2019 05:34	WG1241544
1-Methylnaphthalene	0.897		0.00821	0.250	1	02/25/2019 05:34	WG1241544
2-Methylnaphthalene	0.782		0.00902	0.250	1	02/25/2019 05:34	WG1241544
(S) Nitrobenzene-d5	106			31.0-160		02/25/2019 05:34	WG1241544
(S) 2-Fluorobiphenyl	101			48.0-148		02/25/2019 05:34	WG1241544
(S) p-Terphenyl-d14	119			37.0-146		02/25/2019 05:34	WG1241544



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	U		31.6	100	1	02/26/2019 06:05	WG1241924
(S) a,a,a-Trifluorotoluene(FID)	103			78.0-120		02/26/2019 06:05	WG1241924

1
Cp2
Tc3
Ss4
Cn5
Sr6
Qc7
Gl8
Al9
Sc

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	02/24/2019 01:13	WG1241407
Toluene	U		0.412	1.00	1	02/24/2019 01:13	WG1241407
Ethylbenzene	U		0.384	1.00	1	02/24/2019 01:13	WG1241407
Total Xylenes	U		1.06	3.00	1	02/24/2019 01:13	WG1241407
Methyl tert-butyl ether	U		0.367	1.00	1	02/24/2019 01:13	WG1241407
1,2-Dichloroethane	U		0.361	1.00	1	02/24/2019 01:13	WG1241407
(S) Toluene-d8	101			80.0-120		02/24/2019 01:13	WG1241407
(S) a,a,a-Trifluorotoluene	94.9			80.0-120		02/24/2019 01:13	WG1241407
(S) 4-Bromofluorobenzene	91.0			77.0-126		02/24/2019 01:13	WG1241407
(S) 1,2-Dichloroethane-d4	112			70.0-130		02/24/2019 01:13	WG1241407



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	U		1.90	5.00	1	02/27/2019 14:54	WG1241594
Lead,Dissolved	U		1.90	5.00	1	02/27/2019 15:00	WG1241438

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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	U		31.6	100	1	02/26/2019 06:26	WG1241924
(S) a,a,a-Trifluorotoluene(FID)	102			78.0-120		02/26/2019 06:26	WG1241924

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	02/24/2019 01:34	WG1241407
Toluene	U		0.412	1.00	1	02/24/2019 01:34	WG1241407
Ethylbenzene	U		0.384	1.00	1	02/24/2019 01:34	WG1241407
Total Xylenes	U		1.06	3.00	1	02/24/2019 01:34	WG1241407
Methyl tert-butyl ether	U		0.367	1.00	1	02/24/2019 01:34	WG1241407
1,2-Dichloroethane	U		0.361	1.00	1	02/24/2019 01:34	WG1241407
(S) Toluene-d8	103			80.0-120		02/24/2019 01:34	WG1241407
(S) a,a,a-Trifluorotoluene	91.3			80.0-120		02/24/2019 01:34	WG1241407
(S) 4-Bromofluorobenzene	94.9			77.0-126		02/24/2019 01:34	WG1241407
(S) 1,2-Dichloroethane-d4	110			70.0-130		02/24/2019 01:34	WG1241407

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00240	0.0100	1	02/26/2019 22:37	WG1242036

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)	369		66.7	200	1	02/28/2019 17:13	WG1241369
Residual Range Organics (RRO)	322		83.3	250	1	02/28/2019 17:13	WG1241369
(S) o-Terphenyl	105			52.0-156		02/28/2019 17:13	WG1241369

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	02/25/2019 05:55	WG1241544
Benzo(a)pyrene	U		0.0116	0.0500	1	02/25/2019 05:55	WG1241544
Benzo(b)fluoranthene	U		0.00212	0.0500	1	02/25/2019 05:55	WG1241544
Benzo(k)fluoranthene	U		0.0136	0.0500	1	02/25/2019 05:55	WG1241544
Chrysene	U		0.0108	0.0500	1	02/25/2019 05:55	WG1241544
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	02/25/2019 05:55	WG1241544
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	02/25/2019 05:55	WG1241544
Naphthalene	U		0.0198	0.250	1	02/25/2019 05:55	WG1241544
1-Methylnaphthalene	0.0129	J	0.00821	0.250	1	02/25/2019 05:55	WG1241544
2-Methylnaphthalene	0.0207	J	0.00902	0.250	1	02/25/2019 05:55	WG1241544
(S) Nitrobenzene-d5	112			31.0-160		02/25/2019 05:55	WG1241544
(S) 2-Fluorobiphenyl	102			48.0-148		02/25/2019 05:55	WG1241544
(S) p-Terphenyl-d14	117			37.0-146		02/25/2019 05:55	WG1241544



Collected date/time: 02/22/19 11:45

L1072951

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	U		1.90	5.00	1	02/27/2019 14:57	WG1241594
Lead,Dissolved	U		1.90	5.00	1	02/27/2019 15:02	WG1241438

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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	U		31.6	100	1	02/26/2019 06:49	WG1241924
(S) a,a,a-Trifluorotoluene(FID)	103			78.0-120		02/26/2019 06:49	WG1241924

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	02/24/2019 01:55	WG1241407
Toluene	U		0.412	1.00	1	02/24/2019 01:55	WG1241407
Ethylbenzene	U		0.384	1.00	1	02/24/2019 01:55	WG1241407
Total Xylenes	U		1.06	3.00	1	02/24/2019 01:55	WG1241407
Methyl tert-butyl ether	U		0.367	1.00	1	02/24/2019 01:55	WG1241407
1,2-Dichloroethane	U		0.361	1.00	1	02/24/2019 01:55	WG1241407
(S) Toluene-d8	102			80.0-120		02/24/2019 01:55	WG1241407
(S) a,a,a-Trifluorotoluene	94.0			80.0-120		02/24/2019 01:55	WG1241407
(S) 4-Bromofluorobenzene	93.6			77.0-126		02/24/2019 01:55	WG1241407
(S) 1,2-Dichloroethane-d4	113			70.0-130		02/24/2019 01:55	WG1241407

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00240	0.0100	1	02/26/2019 22:50	WG1242036

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)	76.5	J	66.7	200	1	02/24/2019 22:53	WG1241369
Residual Range Organics (RRO)	214	J	83.3	250	1	02/24/2019 22:53	WG1241369
(S) o-Terphenyl	90.5			52.0-156		02/24/2019 22:53	WG1241369

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	02/25/2019 09:11	WG1241544
Benzo(a)pyrene	U		0.0116	0.0500	1	02/25/2019 09:11	WG1241544
Benzo(b)fluoranthene	U		0.00212	0.0500	1	02/25/2019 09:11	WG1241544
Benzo(k)fluoranthene	U		0.0136	0.0500	1	02/25/2019 09:11	WG1241544
Chrysene	U		0.0108	0.0500	1	02/25/2019 09:11	WG1241544
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	02/25/2019 09:11	WG1241544
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	02/25/2019 09:11	WG1241544
Naphthalene	0.221	J	0.0198	0.250	1	02/25/2019 09:11	WG1241544
1-Methylnaphthalene	0.00929	J	0.00821	0.250	1	02/25/2019 09:11	WG1241544
2-Methylnaphthalene	0.0137	J	0.00902	0.250	1	02/25/2019 09:11	WG1241544
(S) Nitrobenzene-d5	124			31.0-160		02/25/2019 09:11	WG1241544
(S) 2-Fluorobiphenyl	103			48.0-148		02/25/2019 09:11	WG1241544
(S) p-Terphenyl-d14	116			37.0-146		02/25/2019 09:11	WG1241544



Method Blank (MB)

(MB) R3387452-1 02/27/19 16:15

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Lead,Dissolved	U		1.90	5.00

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

(LCS) R3387452-2 02/27/19 16:17 • (LCSD) R3387452-3 02/27/19 16:20

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 %
Lead,Dissolved	1000	1000	980	100	98.0	80.0-120			2.28	20

L1072690-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1072690-01 02/27/19 16:22 • (MS) R3387452-5 02/27/19 16:28 • (MSD) R3387452-6 02/27/19 16:30

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	1000	ND	1000	990	100	99.0	1	75.0-125			1.21	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3387451-1 02/27/19 15:10

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Lead	U		1.90	5.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

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

(LCS) R3387451-2 02/27/19 15:13 • (LCSD) R3387451-3 02/27/19 15:15

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 %
Lead	1000	995	975	99.5	97.5	80.0-120			1.99	20

L1072690-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1072690-01 02/27/19 15:18 • (MS) R3387451-5 02/27/19 15:24 • (MSD) R3387451-6 02/27/19 15:26

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead	1000	ND	992	1010	99.2	101	1	75.0-125			2.12	20

Method Blank (MB)

(MB) R3387744-2 02/25/19 22:31

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	87.8	J	31.6	100
(S) a,a,a-Trifluorotoluene(FID)	110			78.0-120

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R3387744-1 02/25/19 20:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	4820	87.6	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			82.7	78.0-120	



Method Blank (MB)

(MB) R3386846-3 02/26/19 00:18

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)	103			78.0-120

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

(LCS) R3386846-1 02/25/19 23:11 • (LCSD) R3386846-2 02/25/19 23:33

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	5770	5560	105	101	70.0-124			3.54	20
(S) a,a,a-Trifluorotoluene(FID)				105	105	78.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3387988-5 03/01/19 01:12

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	34.1	J	31.6	100
(S) a,a,a-Trifluorotoluene(FID)	97.2			78.0-120

1
Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc

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

(LCS) R3387988-3 03/01/19 00:08 • (LCSD) R3387988-4 03/01/19 00:29

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	5980	5230	109	95.1	70.0-124			13.4	20
(S) a,a,a-Trifluorotoluene(FID)				116	113	78.0-120				

Method Blank (MB)

(MB) R3386905-2 02/23/19 20:14

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	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	98.5			80.0-120
(S) a,a,a-Trifluorotoluene	92.4			80.0-120
(S) 4-Bromofluorobenzene	91.6			77.0-126
(S) 1,2-Dichloroethane-d4	109			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3386905-1 02/23/19 19:31

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	25.0	23.0	92.1	70.0-123	
1,2-Dichloroethane	25.0	21.9	87.7	70.0-128	
Ethylbenzene	25.0	21.5	86.0	79.0-123	
Methyl tert-butyl ether	25.0	22.6	90.5	68.0-125	
Toluene	25.0	21.3	85.1	79.0-120	
Xylenes, Total	75.0	66.1	88.1	79.0-123	
(S) Toluene-d8			97.1	80.0-120	
(S) a,a,a-Trifluorotoluene			95.3	80.0-120	
(S) 4-Bromofluorobenzene			95.2	77.0-126	
(S) 1,2-Dichloroethane-d4			111	70.0-130	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3387255-1 02/26/19 19:33

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Ethylene Dibromide	U		0.00240	0.0100

L1072951-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1072951-01 02/26/19 20:23 • (DUP) R3387255-3 02/26/19 20:10

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Ethylene Dibromide	U	0.000	1	0.000		20

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

(LCS) R3387255-4 02/26/19 22:25 • (LCSD) R3387255-5 02/27/19 00:52

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	%	%	%			%	%
Ethylene Dibromide	0.250	0.215	0.217	86.0	86.8	60.0-140			0.926	20

L1072951-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1072951-02 02/26/19 19:58 • (MS) R3387255-2 02/26/19 19:45

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	ug/l	ug/l	ug/l	%		%	
Ethylene Dibromide	0.100	U	0.105	105	1	64.0-159	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3386577-1 02/24/19 18:31

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	91.5			52.0-156

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

(LCS) R3386577-2 02/24/19 18:51 • (LCSD) R3386577-3 02/24/19 19:11

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	892	881	119	117	50.0-150			1.24	20
Residual Range Organics (RRO)	750	698	680	93.1	90.7	50.0-150			2.61	20
(S) o-Terphenyl				93.5	90.5	52.0-156				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3386531-3 02/24/19 23:21

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzo(a)anthracene	U		0.00410	0.0500
Benzo(a)pyrene	U		0.0116	0.0500
Benzo(b)fluoranthene	U		0.00212	0.0500
Benzo(k)fluoranthene	U		0.0136	0.0500
Chrysene	U		0.0108	0.0500
Dibenz(a,h)anthracene	U		0.00396	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500
Naphthalene	U		0.0198	0.250
1-Methylnaphthalene	U		0.00821	0.250
2-Methylnaphthalene	U		0.00902	0.250
(S) Nitrobenzene-d5	107			31.0-160
(S) 2-Fluorobiphenyl	96.5			48.0-148
(S) p-Terphenyl-d14	119			37.0-146

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

(LCS) R3386531-1 02/24/19 22:40 • (LCSD) R3386531-2 02/24/19 23:00

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzo(a)anthracene	2.00	2.30	2.37	115	118	61.0-140			3.00	20
Benzo(a)pyrene	2.00	2.47	2.53	123	126	60.0-143			2.40	20
Benzo(b)fluoranthene	2.00	2.30	2.49	115	124	58.0-141			7.93	20
Benzo(k)fluoranthene	2.00	2.54	2.43	127	122	58.0-148			4.43	20
Chrysene	2.00	2.34	2.43	117	122	64.0-144			3.77	20
Dibenz(a,h)anthracene	2.00	2.41	2.42	120	121	52.0-155			0.414	20
Indeno(1,2,3-cd)pyrene	2.00	2.37	2.41	118	120	54.0-153			1.67	20
Naphthalene	2.00	2.39	2.48	119	124	61.0-137			3.70	20
1-Methylnaphthalene	2.00	2.45	2.55	122	128	66.0-142			4.00	20
2-Methylnaphthalene	2.00	2.29	2.40	114	120	62.0-136			4.69	20
(S) Nitrobenzene-d5				112	116	31.0-160				
(S) 2-Fluorobiphenyl				99.0	99.0	48.0-148				
(S) p-Terphenyl-d14				114	119	37.0-146				



Guide to Reading and Understanding Your Laboratory Report

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

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, 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.
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.
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.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
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

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Pace National 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.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

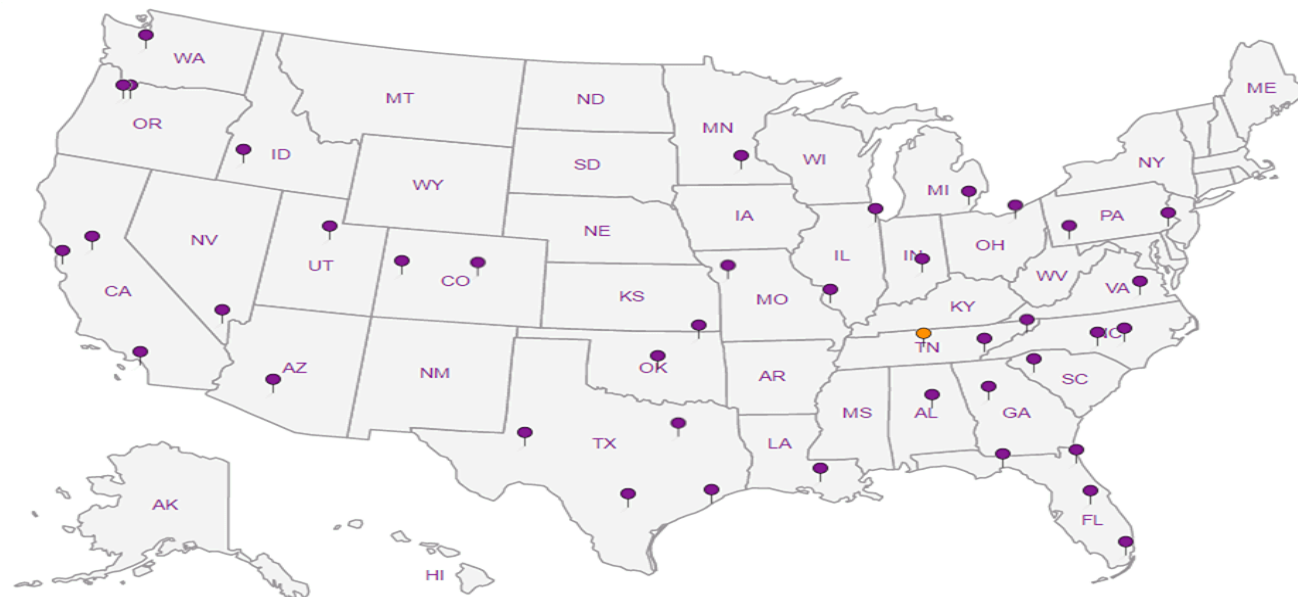
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National 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. Pace National performs all testing at our central laboratory.



May 24, 2019

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

ARCADIS US - Seattle, WA

Sample Delivery Group: L1099701
Samples Received: 05/16/2019
Project Number: GP18BPWC.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

Brian Ford
Project Manager

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 Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-9 L1099701-01 GW

				Collected by	Collected date/time	Received date/time
				Kiley Zaubi	05/13/19 13:45	05/16/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1283222	1	05/22/19 08:34	05/22/19 17:29	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1283012	1	05/17/19 20:51	05/17/19 20:51	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1283381	1	05/19/19 07:00	05/19/19 07:00	JHH	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1283480	1	05/19/19 07:56	05/20/19 18:49	KLM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1282651	1	05/17/19 19:40	05/20/19 03:11	TH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1282661	1	05/19/19 16:13	05/20/19 14:01	LEA	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

MW-11 L1099701-02 GW

				Collected by	Collected date/time	Received date/time
				Kiley Zaubi	05/13/19 15:15	05/16/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1283222	1	05/22/19 08:34	05/22/19 18:01	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1283012	1	05/17/19 21:14	05/17/19 21:14	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1283381	1	05/19/19 07:20	05/19/19 07:20	JHH	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1283480	1	05/19/19 07:56	05/20/19 19:00	KLM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1282651	1	05/17/19 19:40	05/20/19 03:33	TH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1282661	1	05/19/19 16:13	05/20/19 02:10	AAT	Mt. Juliet, TN

MW-12 L1099701-03 GW

				Collected by	Collected date/time	Received date/time
				Kiley Zaubi	05/13/19 16:20	05/16/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1283222	1	05/22/19 08:34	05/22/19 18:03	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1283012	1	05/17/19 21:36	05/17/19 21:36	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1283381	1	05/19/19 07:40	05/19/19 07:40	JHH	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1283480	1	05/19/19 07:56	05/20/19 19:11	KLM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1282651	1	05/17/19 19:40	05/20/19 03:55	TH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1282661	1	05/19/19 16:13	05/20/19 02:32	AAT	Mt. Juliet, TN

MW-2 L1099701-04 GW

				Collected by	Collected date/time	Received date/time
				Kiley Zaubi	05/14/19 12:15	05/16/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1283222	1	05/22/19 08:34	05/22/19 18:06	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1283012	1	05/17/19 22:28	05/17/19 22:28	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1283381	1	05/19/19 08:00	05/19/19 08:00	JHH	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1283480	1	05/19/19 07:56	05/20/19 19:23	KLM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1282651	1	05/17/19 19:40	05/20/19 04:17	TH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1282661	1	05/19/19 16:13	05/20/19 02:54	AAT	Mt. Juliet, TN

MW-3 L1099701-05 GW

				Collected by	Collected date/time	Received date/time
				Kiley Zaubi	05/14/19 13:40	05/16/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1283222	1	05/22/19 08:34	05/22/19 18:08	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1283012	1	05/17/19 22:51	05/17/19 22:51	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1283381	1	05/19/19 08:20	05/19/19 08:20	JHH	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1283480	1	05/19/19 07:56	05/20/19 19:58	KLM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1282651	1	05/17/19 19:40	05/20/19 04:39	TH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1282661	1	05/19/19 16:13	05/20/19 03:16	AAT	Mt. Juliet, TN

ACCOUNT:

ARCADIS US - Seattle, WA

PROJECT:

GP18BPWC.WA48

SDG:

L1099701

DATE/TIME:

05/24/19 11:57

PAGE:

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MW-5 L1099701-06 GW

				Collected by	Collected date/time	Received date/time
				Kiley Zaubi	05/14/19 16:20	05/16/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1284332	1	05/22/19 11:54	05/22/19 11:54	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1284324	1	05/21/19 17:35	05/21/19 17:35	DWR	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1283480	1	05/19/19 07:56	05/20/19 20:11	KLM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1282653	1	05/19/19 22:46	05/21/19 00:46	SHG	Mt. Juliet, TN

MW-1 L1099701-07 GW

				Collected by	Collected date/time	Received date/time
				Kiley Zaubi	05/14/19 17:20	05/16/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1283222	1	05/22/19 08:34	05/22/19 18:11	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1284332	1	05/22/19 12:16	05/22/19 12:16	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1283381	1	05/19/19 08:40	05/19/19 08:40	JHH	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1283480	1	05/19/19 07:56	05/20/19 20:23	KLM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1282651	1	05/17/19 19:40	05/20/19 05:01	TH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1282661	2	05/19/19 16:13	05/20/19 03:38	AAT	Mt. Juliet, TN

DUP-1 L1099701-08 GW

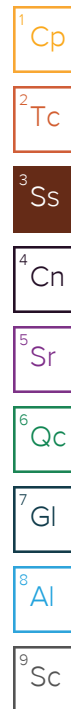
				Collected by	Collected date/time	Received date/time
				Kiley Zaubi	05/14/19 00:00	05/16/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1283222	1	05/22/19 08:34	05/22/19 18:14	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1284332	1	05/22/19 12:39	05/22/19 12:39	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1283381	1	05/19/19 09:00	05/19/19 09:00	JHH	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1283480	1	05/19/19 07:56	05/20/19 20:35	KLM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1282651	1	05/17/19 19:40	05/20/19 05:23	TH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1282661	1	05/19/19 16:13	05/20/19 04:00	AAT	Mt. Juliet, TN

TRIP BLANK L1099701-10 GW

				Collected by	Collected date/time	Received date/time
				Kiley Zaubi	05/14/19 00:00	05/16/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1283835	1	05/21/19 12:54	05/21/19 12:54	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1283381	1	05/19/19 06:40	05/19/19 06:40	JHH	Mt. Juliet, TN

GMW-1 L1099701-11 GW

				Collected by	Collected date/time	Received date/time
				Kiley Zaubi	05/13/19 00:00	05/16/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1283222	1	05/22/19 08:34	05/22/19 18:16	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1283835	1	05/21/19 16:50	05/21/19 16:50	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1284324	1	05/21/19 17:54	05/21/19 17:54	DWR	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1283480	1	05/19/19 07:56	05/20/19 20:47	KLM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1282653	1	05/19/19 22:46	05/21/19 01:06	SHG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1282661	1	05/19/19 16:13	05/20/19 04:21	AAT	Mt. Juliet, TN





All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	U		1.90	5.00	1	05/22/2019 17:29	WG1283222

1
Cp2
Tc3
Ss4
Cn5
Sr

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	U		31.6	100	1	05/17/2019 20:51	WG1283012
(S) a,a,a-Trifluorotoluene(FID)	102			78.0-120		05/17/2019 20:51	WG1283012

6
Qc7
Gl8
Al9
Sc

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	05/19/2019 07:00	WG1283381
Toluene	U		0.412	1.00	1	05/19/2019 07:00	WG1283381
Ethylbenzene	U		0.384	1.00	1	05/19/2019 07:00	WG1283381
Total Xylenes	U		1.06	3.00	1	05/19/2019 07:00	WG1283381
Methyl tert-butyl ether	U		0.367	1.00	1	05/19/2019 07:00	WG1283381
1,2-Dichloroethane	U		0.361	1.00	1	05/19/2019 07:00	WG1283381
(S) Toluene-d8	95.6			80.0-120		05/19/2019 07:00	WG1283381
(S) a,a,a-Trifluorotoluene	102			80.0-120		05/19/2019 07:00	WG1283381
(S) 4-Bromofluorobenzene	98.7			77.0-126		05/19/2019 07:00	WG1283381
(S) 1,2-Dichloroethane-d4	91.7			70.0-130		05/19/2019 07:00	WG1283381

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00240	0.0100	1	05/20/2019 18:49	WG1283480

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)	220		66.7	200	1	05/20/2019 03:11	WG1282651
Residual Range Organics (RRO)	107	J	83.3	250	1	05/20/2019 03:11	WG1282651
(S) o-Terphenyl	98.9			52.0-156		05/20/2019 03:11	WG1282651

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	05/20/2019 14:01	WG1282661
Benzo(a)pyrene	U		0.0116	0.0500	1	05/20/2019 14:01	WG1282661
Benzo(b)fluoranthene	U		0.00212	0.0500	1	05/20/2019 14:01	WG1282661
Benzo(k)fluoranthene	U		0.0136	0.0500	1	05/20/2019 14:01	WG1282661
Chrysene	U		0.0108	0.0500	1	05/20/2019 14:01	WG1282661
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	05/20/2019 14:01	WG1282661
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	05/20/2019 14:01	WG1282661
Naphthalene	U		0.0198	0.250	1	05/20/2019 14:01	WG1282661
1-Methylnaphthalene	0.0162	J	0.00821	0.250	1	05/20/2019 14:01	WG1282661
2-Methylnaphthalene	0.0140	J	0.00902	0.250	1	05/20/2019 14:01	WG1282661
(S) Nitrobenzene-d5	116			31.0-160		05/20/2019 14:01	WG1282661
(S) 2-Fluorobiphenyl	94.5			48.0-148		05/20/2019 14:01	WG1282661
(S) p-Terphenyl-d14	107			37.0-146		05/20/2019 14:01	WG1282661



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	U		1.90	5.00	1	05/22/2019 18:01	WG1283222

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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	40.1	J	31.6	100	1	05/17/2019 21:14	WG1283012
(S) a,a,a-Trifluorotoluene(FID)	102			78.0-120		05/17/2019 21:14	WG1283012

6 Qc

7 Gl

8 Al

9 Sc

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	05/19/2019 07:20	WG1283381
Toluene	U		0.412	1.00	1	05/19/2019 07:20	WG1283381
Ethylbenzene	U		0.384	1.00	1	05/19/2019 07:20	WG1283381
Total Xylenes	U		1.06	3.00	1	05/19/2019 07:20	WG1283381
Methyl tert-butyl ether	0.674	J	0.367	1.00	1	05/19/2019 07:20	WG1283381
1,2-Dichloroethane	U		0.361	1.00	1	05/19/2019 07:20	WG1283381
(S) Toluene-d8	90.7			80.0-120		05/19/2019 07:20	WG1283381
(S) a,a,a-Trifluorotoluene	99.6			80.0-120		05/19/2019 07:20	WG1283381
(S) 4-Bromofluorobenzene	97.2			77.0-126		05/19/2019 07:20	WG1283381
(S) 1,2-Dichloroethane-d4	91.6			70.0-130		05/19/2019 07:20	WG1283381

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00240	0.0100	1	05/20/2019 19:00	WG1283480

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)	423		66.7	200	1	05/20/2019 03:33	WG1282651
Residual Range Organics (RRO)	308		83.3	250	1	05/20/2019 03:33	WG1282651
(S) o-Terphenyl	96.8			52.0-156		05/20/2019 03:33	WG1282651

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	0.00965	J	0.00410	0.0500	1	05/20/2019 02:10	WG1282661
Benzo(a)pyrene	U		0.0116	0.0500	1	05/20/2019 02:10	WG1282661
Benzo(b)fluoranthene	U		0.00212	0.0500	1	05/20/2019 02:10	WG1282661
Benzo(k)fluoranthene	U		0.0136	0.0500	1	05/20/2019 02:10	WG1282661
Chrysene	U		0.0108	0.0500	1	05/20/2019 02:10	WG1282661
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	05/20/2019 02:10	WG1282661
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	05/20/2019 02:10	WG1282661
Naphthalene	0.165	J	0.0198	0.250	1	05/20/2019 02:10	WG1282661
1-Methylnaphthalene	0.0258	J	0.00821	0.250	1	05/20/2019 02:10	WG1282661
2-Methylnaphthalene	0.0121	J	0.00902	0.250	1	05/20/2019 02:10	WG1282661
(S) Nitrobenzene-d5	124			31.0-160		05/20/2019 02:10	WG1282661
(S) 2-Fluorobiphenyl	73.0			48.0-148		05/20/2019 02:10	WG1282661
(S) p-Terphenyl-d14	81.0			37.0-146		05/20/2019 02:10	WG1282661



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	U		1.90	5.00	1	05/22/2019 18:03	WG1283222

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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	1320		31.6	100	1	05/17/2019 21:36	WG1283012
(S) a,a,a-Trifluorotoluene(FID)	97.7			78.0-120		05/17/2019 21:36	WG1283012

6 Qc

7 Gl

8 Al

9 Sc

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	3.79		0.331	1.00	1	05/19/2019 07:40	WG1283381
Toluene	U		0.412	1.00	1	05/19/2019 07:40	WG1283381
Ethylbenzene	0.457	J	0.384	1.00	1	05/19/2019 07:40	WG1283381
Total Xylenes	U		1.06	3.00	1	05/19/2019 07:40	WG1283381
Methyl tert-butyl ether	U		0.367	1.00	1	05/19/2019 07:40	WG1283381
1,2-Dichloroethane	U		0.361	1.00	1	05/19/2019 07:40	WG1283381
(S) Toluene-d8	89.8			80.0-120		05/19/2019 07:40	WG1283381
(S) a,a,a-Trifluorotoluene	97.5			80.0-120		05/19/2019 07:40	WG1283381
(S) 4-Bromofluorobenzene	98.0			77.0-126		05/19/2019 07:40	WG1283381
(S) 1,2-Dichloroethane-d4	96.3			70.0-130		05/19/2019 07:40	WG1283381

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00240	0.0100	1	05/20/2019 19:11	WG1283480

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)	394		66.7	200	1	05/20/2019 03:55	WG1282651
Residual Range Organics (RRO)	198	J	83.3	250	1	05/20/2019 03:55	WG1282651
(S) o-Terphenyl	102			52.0-156		05/20/2019 03:55	WG1282651

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	05/20/2019 02:32	WG1282661
Benzo(a)pyrene	U		0.0116	0.0500	1	05/20/2019 02:32	WG1282661
Benzo(b)fluoranthene	U		0.00212	0.0500	1	05/20/2019 02:32	WG1282661
Benzo(k)fluoranthene	U		0.0136	0.0500	1	05/20/2019 02:32	WG1282661
Chrysene	U		0.0108	0.0500	1	05/20/2019 02:32	WG1282661
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	05/20/2019 02:32	WG1282661
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	05/20/2019 02:32	WG1282661
Naphthalene	0.463		0.0198	0.250	1	05/20/2019 02:32	WG1282661
1-Methylnaphthalene	0.328		0.00821	0.250	1	05/20/2019 02:32	WG1282661
2-Methylnaphthalene	0.0239	J	0.00902	0.250	1	05/20/2019 02:32	WG1282661
(S) Nitrobenzene-d5	136			31.0-160		05/20/2019 02:32	WG1282661
(S) 2-Fluorobiphenyl	77.5			48.0-148		05/20/2019 02:32	WG1282661
(S) p-Terphenyl-d14	85.0			37.0-146		05/20/2019 02:32	WG1282661



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	U		1.90	5.00	1	05/22/2019 18:06	WG1283222

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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	40.0	J	31.6	100	1	05/17/2019 22:28	WG1283012
(S) a,a,a-Trifluorotoluene(FID)	101			78.0-120		05/17/2019 22:28	WG1283012

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	1.45		0.331	1.00	1	05/19/2019 08:00	WG1283381
Toluene	U		0.412	1.00	1	05/19/2019 08:00	WG1283381
Ethylbenzene	U		0.384	1.00	1	05/19/2019 08:00	WG1283381
Total Xylenes	U		1.06	3.00	1	05/19/2019 08:00	WG1283381
Methyl tert-butyl ether	U		0.367	1.00	1	05/19/2019 08:00	WG1283381
1,2-Dichloroethane	U		0.361	1.00	1	05/19/2019 08:00	WG1283381
(S) Toluene-d8	92.4			80.0-120		05/19/2019 08:00	WG1283381
(S) a,a,a-Trifluorotoluene	101			80.0-120		05/19/2019 08:00	WG1283381
(S) 4-Bromofluorobenzene	98.4			77.0-126		05/19/2019 08:00	WG1283381
(S) 1,2-Dichloroethane-d4	93.0			70.0-130		05/19/2019 08:00	WG1283381

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00240	0.0100	1	05/20/2019 19:23	WG1283480

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)	250		66.7	200	1	05/20/2019 04:17	WG1282651
Residual Range Organics (RRO)	197	J	83.3	250	1	05/20/2019 04:17	WG1282651
(S) o-Terphenyl	99.5			52.0-156		05/20/2019 04:17	WG1282651

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	05/20/2019 02:54	WG1282661
Benzo(a)pyrene	U		0.0116	0.0500	1	05/20/2019 02:54	WG1282661
Benzo(b)fluoranthene	U		0.00212	0.0500	1	05/20/2019 02:54	WG1282661
Benzo(k)fluoranthene	U		0.0136	0.0500	1	05/20/2019 02:54	WG1282661
Chrysene	U		0.0108	0.0500	1	05/20/2019 02:54	WG1282661
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	05/20/2019 02:54	WG1282661
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	05/20/2019 02:54	WG1282661
Naphthalene	0.0593	J	0.0198	0.250	1	05/20/2019 02:54	WG1282661
1-Methylnaphthalene	0.0214	J	0.00821	0.250	1	05/20/2019 02:54	WG1282661
2-Methylnaphthalene	0.0228	J	0.00902	0.250	1	05/20/2019 02:54	WG1282661
(S) Nitrobenzene-d5	123			31.0-160		05/20/2019 02:54	WG1282661
(S) 2-Fluorobiphenyl	78.0			48.0-148		05/20/2019 02:54	WG1282661
(S) p-Terphenyl-d14	82.0			37.0-146		05/20/2019 02:54	WG1282661



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	U		1.90	5.00	1	05/22/2019 18:08	WG1283222

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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	U		31.6	100	1	05/17/2019 22:51	WG1283012
(S) a,a,a-Trifluorotoluene(FID)	101			78.0-120		05/17/2019 22:51	WG1283012

6 Qc

7 Gl

8 Al

9 Sc

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	05/19/2019 08:20	WG1283381
Toluene	U		0.412	1.00	1	05/19/2019 08:20	WG1283381
Ethylbenzene	U		0.384	1.00	1	05/19/2019 08:20	WG1283381
Total Xylenes	U		1.06	3.00	1	05/19/2019 08:20	WG1283381
Methyl tert-butyl ether	U		0.367	1.00	1	05/19/2019 08:20	WG1283381
1,2-Dichloroethane	U		0.361	1.00	1	05/19/2019 08:20	WG1283381
(S) Toluene-d8	93.3			80.0-120		05/19/2019 08:20	WG1283381
(S) a,a,a-Trifluorotoluene	100			80.0-120		05/19/2019 08:20	WG1283381
(S) 4-Bromofluorobenzene	98.3			77.0-126		05/19/2019 08:20	WG1283381
(S) 1,2-Dichloroethane-d4	93.7			70.0-130		05/19/2019 08:20	WG1283381

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00240	0.0100	1	05/20/2019 19:58	WG1283480

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)	71.9	J	66.7	200	1	05/20/2019 04:39	WG1282651
Residual Range Organics (RRO)	101	J	83.3	250	1	05/20/2019 04:39	WG1282651
(S) o-Terphenyl	91.6			52.0-156		05/20/2019 04:39	WG1282651

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	05/20/2019 03:16	WG1282661
Benzo(a)pyrene	U		0.0116	0.0500	1	05/20/2019 03:16	WG1282661
Benzo(b)fluoranthene	U		0.00212	0.0500	1	05/20/2019 03:16	WG1282661
Benzo(k)fluoranthene	U		0.0136	0.0500	1	05/20/2019 03:16	WG1282661
Chrysene	U		0.0108	0.0500	1	05/20/2019 03:16	WG1282661
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	05/20/2019 03:16	WG1282661
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	05/20/2019 03:16	WG1282661
Naphthalene	0.0335	J	0.0198	0.250	1	05/20/2019 03:16	WG1282661
1-Methylnaphthalene	U		0.00821	0.250	1	05/20/2019 03:16	WG1282661
2-Methylnaphthalene	U		0.00902	0.250	1	05/20/2019 03:16	WG1282661
(S) Nitrobenzene-d5	131			31.0-160		05/20/2019 03:16	WG1282661
(S) 2-Fluorobiphenyl	83.0			48.0-148		05/20/2019 03:16	WG1282661
(S) p-Terphenyl-d14	87.5			37.0-146		05/20/2019 03:16	WG1282661



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	54.5	J	31.6	100	1	05/22/2019 11:54	WG1284332
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	102			78.0-120		05/22/2019 11:54	WG1284332

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

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	0.403	J	0.331	1.00	1	05/21/2019 17:35	WG1284324
Toluene	U		0.412	1.00	1	05/21/2019 17:35	WG1284324
Ethylbenzene	U		0.384	1.00	1	05/21/2019 17:35	WG1284324
Total Xylenes	5.45		1.06	3.00	1	05/21/2019 17:35	WG1284324
Methyl tert-butyl ether	U		0.367	1.00	1	05/21/2019 17:35	WG1284324
1,2-Dichloroethane	U		0.361	1.00	1	05/21/2019 17:35	WG1284324
(S) Toluene-d8	104			80.0-120		05/21/2019 17:35	WG1284324
(S) <i>a,a,a</i> -Trifluorotoluene	119			80.0-120		05/21/2019 17:35	WG1284324
(S) 4-Bromofluorobenzene	91.5			77.0-126		05/21/2019 17:35	WG1284324
(S) 1,2-Dichloroethane-d4	115			70.0-130		05/21/2019 17:35	WG1284324

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00240	0.0100	1	05/20/2019 20:11	WG1283480

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)	1120		66.7	200	1	05/21/2019 00:46	WG1282653
Residual Range Organics (RRO)	122	J	83.3	250	1	05/21/2019 00:46	WG1282653
(S) <i>o</i> -Terphenyl	88.0			52.0-156		05/21/2019 00:46	WG1282653



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	U		1.90	5.00	1	05/22/2019 18:11	WG1283222

1
Cp2
Tc3
Ss4
Cn5
Sr

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	40.0	J	31.6	100	1	05/22/2019 12:16	WG1284332
(S) a,a,a-Trifluorotoluene(FID)	103			78.0-120		05/22/2019 12:16	WG1284332

6
Qc7
Gl8
Al9
Sc

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	05/19/2019 08:40	WG1283381
Toluene	U		0.412	1.00	1	05/19/2019 08:40	WG1283381
Ethylbenzene	U		0.384	1.00	1	05/19/2019 08:40	WG1283381
Total Xylenes	U		1.06	3.00	1	05/19/2019 08:40	WG1283381
Methyl tert-butyl ether	U		0.367	1.00	1	05/19/2019 08:40	WG1283381
1,2-Dichloroethane	U		0.361	1.00	1	05/19/2019 08:40	WG1283381
(S) Toluene-d8	93.7			80.0-120		05/19/2019 08:40	WG1283381
(S) a,a,a-Trifluorotoluene	102			80.0-120		05/19/2019 08:40	WG1283381
(S) 4-Bromofluorobenzene	99.4			77.0-126		05/19/2019 08:40	WG1283381
(S) 1,2-Dichloroethane-d4	94.4			70.0-130		05/19/2019 08:40	WG1283381

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00240	0.0100	1	05/20/2019 20:23	WG1283480

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)	271		66.7	200	1	05/20/2019 05:01	WG1282651
Residual Range Organics (RRO)	220	J	83.3	250	1	05/20/2019 05:01	WG1282651
(S) o-Terphenyl	97.9			52.0-156		05/20/2019 05:01	WG1282651

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00820	0.100	2	05/20/2019 03:38	WG1282661
Benzo(a)pyrene	U		0.0232	0.100	2	05/20/2019 03:38	WG1282661
Benzo(b)fluoranthene	U		0.00424	0.100	2	05/20/2019 03:38	WG1282661
Benzo(k)fluoranthene	U		0.0272	0.100	2	05/20/2019 03:38	WG1282661
Chrysene	U		0.0216	0.100	2	05/20/2019 03:38	WG1282661
Dibenz(a,h)anthracene	U		0.00792	0.100	2	05/20/2019 03:38	WG1282661
Indeno(1,2,3-cd)pyrene	U		0.0296	0.100	2	05/20/2019 03:38	WG1282661
Naphthalene	0.110	J	0.0396	0.500	2	05/20/2019 03:38	WG1282661
1-Methylnaphthalene	0.0309	J	0.0164	0.500	2	05/20/2019 03:38	WG1282661
2-Methylnaphthalene	0.0414	J	0.0180	0.500	2	05/20/2019 03:38	WG1282661
(S) Nitrobenzene-d5	118			31.0-160		05/20/2019 03:38	WG1282661
(S) 2-Fluorobiphenyl	74.5			48.0-148		05/20/2019 03:38	WG1282661
(S) p-Terphenyl-d14	75.0			37.0-146		05/20/2019 03:38	WG1282661

Sample Narrative:

ACCOUNT:

ARCADIS US - Seattle, WA

PROJECT:

GP18BPWC.WA48

SDG:

L1099701

DATE/TIME:

05/24/19 11:57

PAGE:

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Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
L1099701-07 WG1282661: Dilution due to matrix impact during extraction procedure							

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	2.20	J	1.90	5.00	1	05/22/2019 18:14	WG1283222

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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	U		31.6	100	1	05/22/2019 12:39	WG1284332
(S) a,a,a-Trifluorotoluene(FID)	103			78.0-120		05/22/2019 12:39	WG1284332

6 Qc

7 Gl

8 Al

9 Sc

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	5.16		0.331	1.00	1	05/19/2019 09:00	WG1283381
Toluene	U		0.412	1.00	1	05/19/2019 09:00	WG1283381
Ethylbenzene	U		0.384	1.00	1	05/19/2019 09:00	WG1283381
Total Xylenes	U		1.06	3.00	1	05/19/2019 09:00	WG1283381
Methyl tert-butyl ether	U		0.367	1.00	1	05/19/2019 09:00	WG1283381
1,2-Dichloroethane	U		0.361	1.00	1	05/19/2019 09:00	WG1283381
(S) Toluene-d8	94.5			80.0-120		05/19/2019 09:00	WG1283381
(S) a,a,a-Trifluorotoluene	102			80.0-120		05/19/2019 09:00	WG1283381
(S) 4-Bromofluorobenzene	99.0			77.0-126		05/19/2019 09:00	WG1283381
(S) 1,2-Dichloroethane-d4	92.1			70.0-130		05/19/2019 09:00	WG1283381

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00240	0.0100	1	05/20/2019 20:35	WG1283480

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)	284		66.7	200	1	05/20/2019 05:23	WG1282651
Residual Range Organics (RRO)	284		83.3	250	1	05/20/2019 05:23	WG1282651
(S) o-Terphenyl	99.5			52.0-156		05/20/2019 05:23	WG1282651

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	05/20/2019 04:00	WG1282661
Benzo(a)pyrene	U		0.0116	0.0500	1	05/20/2019 04:00	WG1282661
Benzo(b)fluoranthene	U		0.00212	0.0500	1	05/20/2019 04:00	WG1282661
Benzo(k)fluoranthene	U		0.0136	0.0500	1	05/20/2019 04:00	WG1282661
Chrysene	U		0.0108	0.0500	1	05/20/2019 04:00	WG1282661
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	05/20/2019 04:00	WG1282661
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	05/20/2019 04:00	WG1282661
Naphthalene	0.0781	J	0.0198	0.250	1	05/20/2019 04:00	WG1282661
1-Methylnaphthalene	0.0214	J	0.00821	0.250	1	05/20/2019 04:00	WG1282661
2-Methylnaphthalene	0.0198	J	0.00902	0.250	1	05/20/2019 04:00	WG1282661
(S) Nitrobenzene-d5	122			31.0-160		05/20/2019 04:00	WG1282661
(S) 2-Fluorobiphenyl	77.0			48.0-148		05/20/2019 04:00	WG1282661
(S) p-Terphenyl-d14	82.0			37.0-146		05/20/2019 04:00	WG1282661



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	89.1	<u>B</u>	31.6	100	1	05/21/2019 12:54	WG1283835
(S) a,a,a-Trifluorotoluene(FID)	84.2			78.0-120		05/21/2019 12:54	WG1283835

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	05/19/2019 06:40	WG1283381
Toluene	U		0.412	1.00	1	05/19/2019 06:40	WG1283381
Ethylbenzene	U		0.384	1.00	1	05/19/2019 06:40	WG1283381
Total Xylenes	U		1.06	3.00	1	05/19/2019 06:40	WG1283381
Methyl tert-butyl ether	U		0.367	1.00	1	05/19/2019 06:40	WG1283381
1,2-Dichloroethane	U		0.361	1.00	1	05/19/2019 06:40	WG1283381
(S) Toluene-d8	95.8			80.0-120		05/19/2019 06:40	WG1283381
(S) a,a,a-Trifluorotoluene	102			80.0-120		05/19/2019 06:40	WG1283381
(S) 4-Bromofluorobenzene	98.9			77.0-126		05/19/2019 06:40	WG1283381
(S) 1,2-Dichloroethane-d4	95.1			70.0-130		05/19/2019 06:40	WG1283381

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 05/13/19 00:00

L1099701

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	U		1.90	5.00	1	05/22/2019 18:16	WG1283222

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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	985		31.6	100	1	05/21/2019 16:50	WG1283835
(S) a,a,a-Trifluorotoluene(FID)	82.4			78.0-120		05/21/2019 16:50	WG1283835

6 Qc

7 Gl

8 Al

9 Sc

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	05/21/2019 17:54	WG1284324
Toluene	U		0.412	1.00	1	05/21/2019 17:54	WG1284324
Ethylbenzene	2.36		0.384	1.00	1	05/21/2019 17:54	WG1284324
Total Xylenes	4.18		1.06	3.00	1	05/21/2019 17:54	WG1284324
Methyl tert-butyl ether	U		0.367	1.00	1	05/21/2019 17:54	WG1284324
1,2-Dichloroethane	U		0.361	1.00	1	05/21/2019 17:54	WG1284324
(S) Toluene-d8	92.6			80.0-120		05/21/2019 17:54	WG1284324
(S) a,a,a-Trifluorotoluene	112			80.0-120		05/21/2019 17:54	WG1284324
(S) 4-Bromofluorobenzene	89.6			77.0-126		05/21/2019 17:54	WG1284324
(S) 1,2-Dichloroethane-d4	109			70.0-130		05/21/2019 17:54	WG1284324

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00240	0.0100	1	05/20/2019 20:47	WG1283480

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)	771		66.7	200	1	05/21/2019 01:06	WG1282653
Residual Range Organics (RRO)	U		83.3	250	1	05/21/2019 01:06	WG1282653
(S) o-Terphenyl	86.0			52.0-156		05/21/2019 01:06	WG1282653

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	05/20/2019 04:21	WG1282661
Benzo(a)pyrene	U		0.0116	0.0500	1	05/20/2019 04:21	WG1282661
Benzo(b)fluoranthene	U		0.00212	0.0500	1	05/20/2019 04:21	WG1282661
Benzo(k)fluoranthene	U		0.0136	0.0500	1	05/20/2019 04:21	WG1282661
Chrysene	U		0.0108	0.0500	1	05/20/2019 04:21	WG1282661
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	05/20/2019 04:21	WG1282661
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	05/20/2019 04:21	WG1282661
Naphthalene	0.377		0.0198	0.250	1	05/20/2019 04:21	WG1282661
1-Methylnaphthalene	0.0625	J	0.00821	0.250	1	05/20/2019 04:21	WG1282661
2-Methylnaphthalene	0.0189	J	0.00902	0.250	1	05/20/2019 04:21	WG1282661
(S) Nitrobenzene-d5	153			31.0-160		05/20/2019 04:21	WG1282661
(S) 2-Fluorobiphenyl	82.0			48.0-148		05/20/2019 04:21	WG1282661
(S) p-Terphenyl-d14	85.0			37.0-146		05/20/2019 04:21	WG1282661



Method Blank (MB)

(MB) R3413935-1 05/22/19 17:21

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Lead	U		1.90	5.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

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

(LCS) R3413935-2 05/22/19 17:24 • (LCSD) R3413935-3 05/22/19 17:26

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 %
Lead	1000	951	969	95.1	96.9	80.0-120			1.91	20

L1099701-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1099701-01 05/22/19 17:29 • (MS) R3413935-5 05/22/19 17:34 • (MSD) R3413935-6 05/22/19 17:37

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead	1000	U	955	942	95.5	94.2	1	75.0-125			1.31	20

Method Blank (MB)

(MB) R3412643-3 05/17/19 13:07

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)	102			78.0-120

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

(LCS) R3412643-1 05/17/19 12:00 • (LCSD) R3412643-2 05/17/19 12:22

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 %
Gasoline Range Organics-NWTPH	5500	4730	4640	86.1	84.3	70.0-124			2.09	20
(S) a,a,a-Trifluorotoluene(FID)				99.3	99.3	78.0-120				



Method Blank (MB)

(MB) R3413416-2 05/21/19 11:46

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	76.8	J	31.6	100
(S) a,a,a-Trifluorotoluene(FID)	84.2			78.0-120

Laboratory Control Sample (LCS)

(LCS) R3413416-1 05/21/19 10:59

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	5080	92.4	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			88.9	78.0-120	

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc



Method Blank (MB)

(MB) R3414209-3 05/22/19 10:58

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)	103			78.0-120

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

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

(LCS) R3414209-1 05/22/19 09:51 • (LCSD) R3414209-2 05/22/19 10:14

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	5200	4980	94.6	90.6	70.0-124			4.32	20
(S) a,a,a-Trifluorotoluene(FID)				100	100	78.0-120				



Method Blank (MB)

(MB) R3414223-3 05/19/19 06:20

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	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	95.5			80.0-120
(S) a,a,a-Trifluorotoluene	104			80.0-120
(S) 4-Bromofluorobenzene	101			77.0-126
(S) 1,2-Dichloroethane-d4	96.0			70.0-130

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

(LCS) R3414223-1 05/19/19 05:20 • (LCSD) R3414223-2 05/19/19 05:40

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	24.9	25.1	99.7	100	70.0-123			0.766	20
1,2-Dichloroethane	25.0	23.5	23.8	94.0	95.0	70.0-128			1.04	20
Ethylbenzene	25.0	24.2	23.7	96.6	95.0	79.0-123			1.73	20
Methyl tert-butyl ether	25.0	25.5	26.3	102	105	68.0-125			2.91	20
Toluene	25.0	22.7	22.5	90.8	90.1	79.0-120			0.841	20
Xylenes, Total	75.0	69.2	68.3	92.3	91.1	79.0-123			1.31	20
(S) Toluene-d8				91.0	92.0	80.0-120				
(S) a,a,a-Trifluorotoluene				103	104	80.0-120				
(S) 4-Bromofluorobenzene				99.5	99.5	77.0-126				
(S) 1,2-Dichloroethane-d4				103	105	70.0-130				

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Method Blank (MB)

(MB) R3414020-3 05/21/19 10:52

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	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) a,a,a-Trifluorotoluene	117			80.0-120
(S) Toluene-d8	103			80.0-120
(S) 4-Bromofluorobenzene	89.6			77.0-126
(S) 1,2-Dichloroethane-d4	112			70.0-130

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

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

(LCS) R3414020-1 05/21/19 09:37 • (LCSD) R3414020-2 05/21/19 09:55

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	25.6	26.0	102	104	70.0-123			1.62	20
1,2-Dichloroethane	25.0	25.9	26.3	104	105	70.0-128			1.25	20
Ethylbenzene	25.0	24.4	24.9	97.6	99.5	79.0-123			1.84	20
Methyl tert-butyl ether	25.0	28.5	29.1	114	116	68.0-125			2.17	20
Toluene	25.0	23.3	23.4	93.1	93.5	79.0-120			0.449	20
Xylenes, Total	75.0	75.7	76.2	101	102	79.0-123			0.658	20
(S) a,a,a-Trifluorotoluene				114	113	80.0-120				
(S) Toluene-d8				100	98.4	80.0-120				
(S) 4-Bromofluorobenzene				91.9	92.9	77.0-126				
(S) 1,2-Dichloroethane-d4				110	111	70.0-130				

Method Blank (MB)

(MB) R3413295-1 05/20/19 17:01

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Ethylene Dibromide	U		0.00240	0.0100

L1099624-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1099624-01 05/20/19 17:48 • (DUP) R3413295-3 05/20/19 17:36

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Ethylene Dibromide	U	0.000	1	0.000		20

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

(LCS) R3413295-4 05/20/19 19:46 • (LCSD) R3413295-5 05/20/19 22:11

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	%	%	%			%	%
Ethylene Dibromide	0.250	0.289	0.298	116	119	60.0-140			3.07	20

L1099624-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1099624-02 05/20/19 17:24 • (MS) R3413295-2 05/20/19 17:12

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	ug/l	ug/l	ug/l	%		%	
Ethylene Dibromide	0.100	U	0.116	116	1	64.0-159	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3412849-1 05/19/19 20:34

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	78.0			52.0-156

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

(LCS) R3412849-2 05/19/19 20:56 • (LCSD) R3412849-3 05/19/19 21:18

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)	1500	1270	1280	84.7	85.3	50.0-150			0.784	20
(S) o-Terphenyl				104	105	52.0-156				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT [L1099701-06.11](#)

Method Blank (MB)

(MB) R3413234-1 05/20/19 13:28

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Diesel Range Organics (DRO)	U		66.7	200
Residual Range Organics (RRO)	U		83.3	250
(S) o-Terphenyl	63.5			52.0-156

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

(LCS) R3413234-2 05/20/19 13:48 • (LCSD) R3413234-3 05/20/19 14:08

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)	1500	1370	1300	91.3	86.7	50.0-150			5.24	20
(S) o-Terphenyl				104	97.5	52.0-156				

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3412680-3 05/19/19 21:24

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzo(a)anthracene	U		0.00410	0.0500
Benzo(a)pyrene	U		0.0116	0.0500
Benzo(b)fluoranthene	U		0.00212	0.0500
Benzo(k)fluoranthene	U		0.0136	0.0500
Chrysene	U		0.0108	0.0500
Dibenz(a,h)anthracene	U		0.00396	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500
Naphthalene	U		0.0198	0.250
1-Methylnaphthalene	U		0.00821	0.250
2-Methylnaphthalene	U		0.00902	0.250
(S) Nitrobenzene-d5	124			31.0-160
(S) 2-Fluorobiphenyl	75.0			48.0-148
(S) p-Terphenyl-d14	77.5			37.0-146

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

(LCS) R3412680-1 05/19/19 20:40 • (LCSD) R3412680-2 05/19/19 21:02

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 %
Benzo(a)anthracene	2.00	1.58	1.56	79.0	78.0	61.0-140			1.27	20
Benzo(a)pyrene	2.00	1.61	1.65	80.5	82.5	60.0-143			2.45	20
Benzo(b)fluoranthene	2.00	1.56	1.63	78.0	81.5	58.0-141			4.39	20
Benzo(k)fluoranthene	2.00	1.65	1.65	82.5	82.5	58.0-148			0.000	20
Chrysene	2.00	1.60	1.68	80.0	84.0	64.0-144			4.88	20
Dibenz(a,h)anthracene	2.00	1.61	1.66	80.5	83.0	52.0-155			3.06	20
Indeno(1,2,3-cd)pyrene	2.00	1.67	1.69	83.5	84.5	54.0-153			1.19	20
Naphthalene	2.00	1.67	1.70	83.5	85.0	61.0-137			1.78	20
1-Methylnaphthalene	2.00	1.54	1.56	77.0	78.0	66.0-142			1.29	20
2-Methylnaphthalene	2.00	1.51	1.55	75.5	77.5	62.0-136			2.61	20
(S) Nitrobenzene-d5				116	123	31.0-160				
(S) 2-Fluorobiphenyl				65.5	71.0	48.0-148				
(S) p-Terphenyl-d14				78.5	80.0	37.0-146				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



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, the sample preparation volume or weight values differ from the standard, 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.
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.
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.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
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

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Pace National 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.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

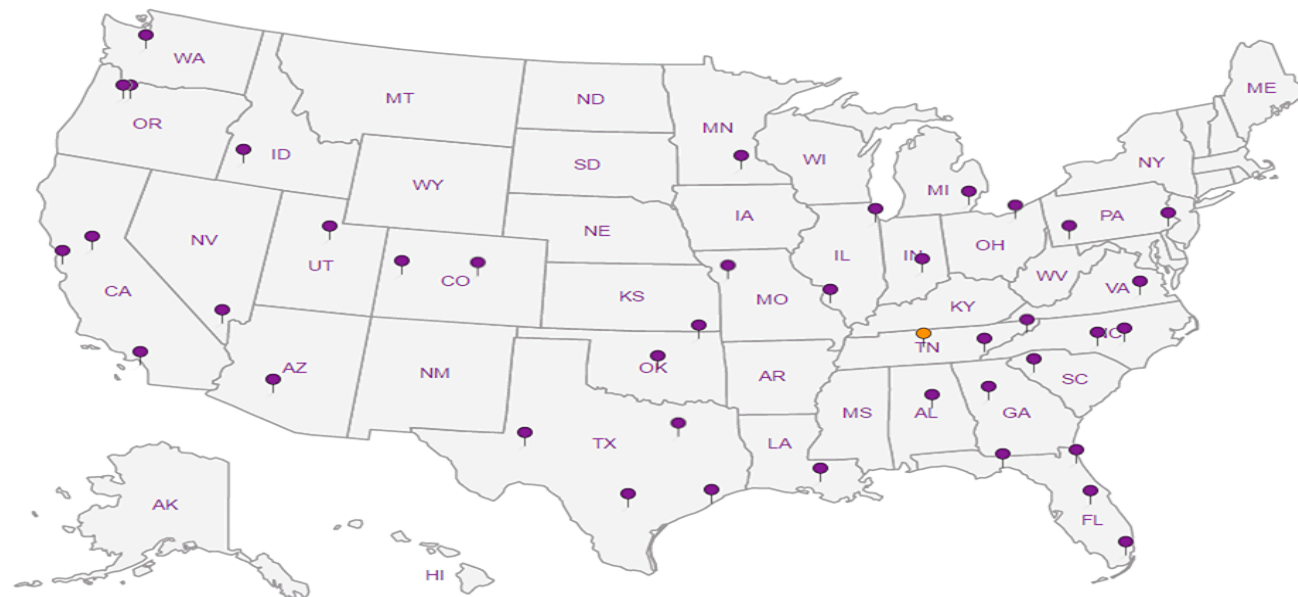
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National 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. Pace National performs all testing at our central laboratory.



ARCADIS US - Seattle, WA

1100 Olive Way
Suite 800
Seattle WA 98101

Report to:
Ross LaGrandeur

Project
Description: WA-11060

Phone: 509-438-9828
Fax:

Collected by (print):
KILEY ZABU

Collected by (signature):

Immediately
Packed on Ice N ☐ Y ☒

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

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

City/State
Collected: Seattle, WA

Lab Project #
ARCABPWA-WA11060

P.O. #GP18BPWC.WA48

Quote #

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

Standard TAT

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1



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



L# 1099701

G244

Acctnum: ARCABPWA

Template: T149873

Prelogin: P707650

TSR: 110 - Brian Ford

PB:

Shipped Via:

Remarks

Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEXM, EDC 8260C 40ml Amb-HCl	EDB 8011 40ml Clr-NaThio	HOLD - Diss Pb 6010 250ml HDPE-NoPres	NWTPHDX LVINOSGT 40ml Amb-HCl-BT	NWTPHGX 40ml Amb HCl	PAHs (PAHSIMLVID) 40ml Amb-NoPres-WT	Total Pb 6010 250ml HDPE-HNO3				
MW-9	G	GW		5-13-19	1345	15	X	X	X	X	X	X	X				01
MW-11	G	GW		5-13-19	1515	15	X	X	X	X	X	X	X				02
MW-12	G	GW		5-13-19	1620	15	X	X	X	X	X	X	X				07
MW-2	G	GW		5-14-19	1215	15	X	X	X	X	X	X	X				04
MW-3	G	GW		5-14-19	1340	15	X	X	X	X	X	X	X				05
MW-5	G	GW		5-14-19	1620	6	X	X			X						04
MW-1	G	GW		5-14-19	1720	15	X	X	X	X	X	X	X				09
DUP-1	G	GW		5-14-19	—	15	X	X	X	X	X	X	X				00
TRIP BLANK		GW															
		GW															

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

Remarks:

Samples returned via:

UPS ☒ FedEx ☐ Courier ☐

Tracking #

pH Temp

Flow Other

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

RAD SCREEN: <0.5 mR/hr

Relinquished by (Signature)

Date:

Time:

Received by (Signature)

Trip Blank Received: Yes/No

HCL MeOH
TBR

Relinquished by (Signature)

Date:

Time:

Received by (Signature)

Temp: °C Bottles Received:

If preservation required by Login: Date/Time

Relinquished by (Signature)

Date:

Time:

Received for lab by (Signature)

Date: Time:

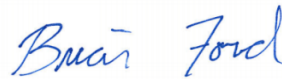
Hold:

Condition:
NCF / OK

ARCADIS US - Seattle, WA

Sample Delivery Group: L1134377
Samples Received: 08/29/2019
Project Number: 30014464
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
Project Manager

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 Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-9 L1134377-01 GW

				Collected by	Collected date/time	Received date/time	
				Kiley Zaubi	08/27/19 13:06	08/29/19 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Metals (ICP) by Method 6010D	WG1337503	1	08/30/19 08:50	08/30/19 13:32	TRB	Mt. Juliet, TN	
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1338737	1	09/02/19 14:49	09/02/19 14:49	JHH	Mt. Juliet, TN	
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1341137	1	09/06/19 14:17	09/06/19 14:17	JHH	Mt. Juliet, TN	
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1342309	1	09/09/19 14:21	09/09/19 14:21	JHH	Mt. Juliet, TN	
EDB / DBCP by Method 8011	WG1337585	1	08/30/19 09:00	09/04/19 02:12	HMH	Mt. Juliet, TN	
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1338613	1	09/01/19 16:49	09/04/19 13:45	SHG	Mt. Juliet, TN	
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1338624	1	09/02/19 08:51	09/03/19 00:40	DMG	Mt. Juliet, TN	

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

MW-11 L1134377-02 GW

				Collected by	Collected date/time	Received date/time	
				Kiley Zaubi	08/27/19 14:45	08/29/19 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Metals (ICP) by Method 6010D	WG1337503	1	08/30/19 08:50	08/30/19 13:35	TRB	Mt. Juliet, TN	
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1338737	1	09/02/19 15:13	09/02/19 15:13	JHH	Mt. Juliet, TN	
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1341137	1	09/06/19 14:37	09/06/19 14:37	JHH	Mt. Juliet, TN	
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1342309	1	09/09/19 14:42	09/09/19 14:42	JHH	Mt. Juliet, TN	
EDB / DBCP by Method 8011	WG1337585	1.01	08/30/19 09:00	09/04/19 02:24	HMH	Mt. Juliet, TN	
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1338613	1	09/01/19 16:49	09/04/19 14:05	SHG	Mt. Juliet, TN	
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1338624	1	09/02/19 08:51	09/03/19 01:01	DMG	Mt. Juliet, TN	

MW-6 L1134377-03 GW

				Collected by	Collected date/time	Received date/time	
				Kiley Zaubi	08/27/19 15:00	08/29/19 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Metals (ICP) by Method 6010D	WG1337503	1	08/30/19 08:50	08/30/19 13:38	TRB	Mt. Juliet, TN	
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1338737	1	09/02/19 15:37	09/02/19 15:37	JHH	Mt. Juliet, TN	
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1340167	1	09/05/19 04:56	09/05/19 04:56	ZJM	Mt. Juliet, TN	
EDB / DBCP by Method 8011	WG1338717	1.02	09/02/19 08:27	09/04/19 04:01	HMH	Mt. Juliet, TN	
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1338613	1	09/01/19 16:49	09/04/19 14:25	SHG	Mt. Juliet, TN	
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1338624	1	09/02/19 08:51	09/03/19 01:22	DMG	Mt. Juliet, TN	

MW-12 L1134377-04 GW

				Collected by	Collected date/time	Received date/time	
				Kiley Zaubi	08/27/19 16:00	08/29/19 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Metals (ICP) by Method 6010D	WG1337503	1	08/30/19 08:50	08/30/19 13:41	TRB	Mt. Juliet, TN	
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1338737	1	09/02/19 16:01	09/02/19 16:01	JHH	Mt. Juliet, TN	
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1341137	1	09/06/19 14:58	09/06/19 14:58	JHH	Mt. Juliet, TN	
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1342309	1	09/09/19 15:03	09/09/19 15:03	JHH	Mt. Juliet, TN	
EDB / DBCP by Method 8011	WG1338717	1.02	09/02/19 08:27	09/04/19 04:14	HMH	Mt. Juliet, TN	
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1338613	1	09/01/19 16:49	09/04/19 14:45	SHG	Mt. Juliet, TN	
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1338624	1	09/02/19 08:51	09/03/19 01:43	DMG	Mt. Juliet, TN	

GMW-1 L1134377-05 GW

				Collected by	Collected date/time	Received date/time	
				Kiley Zaubi	08/27/19 16:25	08/29/19 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Metals (ICP) by Method 6010D	WG1337503	1	08/30/19 08:50	08/30/19 13:43	TRB	Mt. Juliet, TN	
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1338737	1	09/02/19 16:25	09/02/19 16:25	JHH	Mt. Juliet, TN	
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1341137	1	09/06/19 15:18	09/06/19 15:18	JHH	Mt. Juliet, TN	
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1342309	1	09/09/19 15:23	09/09/19 15:23	JHH	Mt. Juliet, TN	
EDB / DBCP by Method 8011	WG1338717	1.02	09/02/19 08:27	09/04/19 04:26	HMH	Mt. Juliet, TN	

ACCOUNT:

ARCADIS US - Seattle, WA

PROJECT:

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SDG:

L1134377

DATE/TIME:

09/11/19 12:35

PAGE:

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GMW-1 L1134377-05 GW

Collected by
Kiley ZaubiCollected date/time
08/27/19 16:25Received date/time
08/29/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1338613	2	09/01/19 16:49	09/04/19 15:05	SHG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1338624	1	09/02/19 08:51	09/03/19 02:04	DMG	Mt. Juliet, TN

¹Cp²Tc³Ss

DUP-1 L1134377-06 GW

Collected by
Kiley ZaubiCollected date/time
08/27/19 00:00Received date/time
08/29/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1337503	1	08/30/19 08:50	08/30/19 13:46	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1338737	1	09/02/19 16:49	09/02/19 16:49	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1341137	1	09/06/19 15:38	09/06/19 15:38	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1342309	1	09/09/19 15:44	09/09/19 15:44	JHH	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1338717	1.02	09/02/19 08:27	09/04/19 04:37	HMH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1338613	2	09/01/19 16:49	09/04/19 15:25	SHG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1338624	1	09/02/19 08:51	09/03/19 02:24	DMG	Mt. Juliet, TN

⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	U		1.90	5.00	1	08/30/2019 13:32	WG1337503

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr

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	U		31.6	100	1	09/02/2019 14:49	WG1338737
(S) a,a,a-Trifluorotoluene(FID)	108			78.0-120		09/02/2019 14:49	WG1338737

⁶ Qc⁷ Gl⁸ Al⁹ Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	3.93	J	1.05	25.0	1	09/06/2019 14:17	WG1341137
Acrylonitrile	U		0.873	5.00	1	09/06/2019 14:17	WG1341137
Benzene	U		0.0896	0.500	1	09/06/2019 14:17	WG1341137
Bromobenzene	U		0.133	0.500	1	09/06/2019 14:17	WG1341137
Bromodichloromethane	U		0.0800	0.500	1	09/06/2019 14:17	WG1341137
Bromochloromethane	U		0.145	0.500	1	09/06/2019 14:17	WG1341137
Bromoform	U		0.186	0.500	1	09/06/2019 14:17	WG1341137
Bromomethane	U		0.157	2.50	1	09/06/2019 14:17	WG1341137
n-Butylbenzene	U		0.143	0.500	1	09/06/2019 14:17	WG1341137
sec-Butylbenzene	U		0.134	0.500	1	09/06/2019 14:17	WG1341137
tert-Butylbenzene	U		0.183	0.500	1	09/06/2019 14:17	WG1341137
Carbon disulfide	U		0.101	0.500	1	09/06/2019 14:17	WG1341137
Carbon tetrachloride	U		0.159	0.500	1	09/06/2019 14:17	WG1341137
Chlorobenzene	U		0.140	0.500	1	09/06/2019 14:17	WG1341137
Chlorodibromomethane	U		0.128	0.500	1	09/06/2019 14:17	WG1341137
Chloroethane	U		0.141	2.50	1	09/06/2019 14:17	WG1341137
Chloroform	U		0.0860	0.500	1	09/06/2019 14:17	WG1341137
Chloromethane	U		0.153	1.25	1	09/06/2019 14:17	WG1341137
2-Chlorotoluene	U		0.111	0.500	1	09/06/2019 14:17	WG1341137
4-Chlorotoluene	U		0.0972	0.500	1	09/06/2019 14:17	WG1341137
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	09/06/2019 14:17	WG1341137
1,2-Dibromoethane	U		0.193	0.500	1	09/06/2019 14:17	WG1341137
Dibromomethane	U		0.117	0.500	1	09/06/2019 14:17	WG1341137
1,2-Dichlorobenzene	U		0.101	0.500	1	09/06/2019 14:17	WG1341137
1,3-Dichlorobenzene	U		0.130	0.500	1	09/06/2019 14:17	WG1341137
1,4-Dichlorobenzene	U		0.121	0.500	1	09/06/2019 14:17	WG1341137
Dichlorodifluoromethane	U		0.127	2.50	1	09/06/2019 14:17	WG1341137
1,1-Dichloroethane	U		0.114	0.500	1	09/06/2019 14:17	WG1341137
1,2-Dichloroethane	U		0.108	0.500	1	09/06/2019 14:17	WG1341137
1,1-Dichloroethene	U		0.188	0.500	1	09/06/2019 14:17	WG1341137
cis-1,2-Dichloroethene	U		0.0933	0.500	1	09/06/2019 14:17	WG1341137
trans-1,2-Dichloroethene	U		0.152	0.500	1	09/06/2019 14:17	WG1341137
1,2-Dichloropropane	U		0.190	0.500	1	09/06/2019 14:17	WG1341137
1,1-Dichloropropene	U		0.128	0.500	1	09/06/2019 14:17	WG1341137
1,3-Dichloropropane	U		0.147	1.00	1	09/06/2019 14:17	WG1341137
cis-1,3-Dichloropropene	U		0.0976	0.500	1	09/06/2019 14:17	WG1341137
trans-1,3-Dichloropropene	U		0.222	0.500	1	09/06/2019 14:17	WG1341137
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	09/06/2019 14:17	WG1341137
2,2-Dichloropropane	U		0.0929	0.500	1	09/06/2019 14:17	WG1341137
Di-isopropyl ether	U		0.0924	0.500	1	09/06/2019 14:17	WG1341137
Ethylbenzene	U		0.158	0.500	1	09/06/2019 14:17	WG1341137
Hexachloro-1,3-butadiene	U		0.157	1.00	1	09/06/2019 14:17	WG1341137
2-Hexanone	U		0.757	5.00	1	09/06/2019 14:17	WG1341137



Collected date/time: 08/27/19 13:06

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
n-Hexane	U		0.305	5.00	1	09/06/2019 14:17	WG1341137
Iodomethane	U		0.377	10.0	1	09/06/2019 14:17	WG1341137
Isopropylbenzene	U		0.126	0.500	1	09/06/2019 14:17	WG1341137
p-Isopropyltoluene	U		0.138	0.500	1	09/06/2019 14:17	WG1341137
2-Butanone (MEK)	U		1.28	5.00	1	09/06/2019 14:17	WG1341137
Methylene Chloride	U		1.07	2.50	1	09/06/2019 14:17	WG1341137
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	09/06/2019 14:17	WG1341137
Methyl tert-butyl ether	U		0.102	0.500	1	09/06/2019 14:17	WG1341137
Naphthalene	U		0.174	2.50	1	09/06/2019 14:17	WG1341137
n-Propylbenzene	U		0.162	0.500	1	09/06/2019 14:17	WG1341137
Styrene	U		0.117	0.500	1	09/06/2019 14:17	WG1341137
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	09/06/2019 14:17	WG1341137
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	09/06/2019 14:17	WG1341137
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	09/06/2019 14:17	WG1341137
Tetrachloroethene	U		0.199	0.500	1	09/06/2019 14:17	WG1341137
Toluene	U		0.412	0.500	1	09/06/2019 14:17	WG1341137
1,2,3-Trichlorobenzene	U		0.164	0.500	1	09/06/2019 14:17	WG1341137
1,2,4-Trichlorobenzene	U		0.355	0.500	1	09/06/2019 14:17	WG1341137
1,1,1-Trichloroethane	U		0.0940	0.500	1	09/06/2019 14:17	WG1341137
1,1,2-Trichloroethane	U		0.186	0.500	1	09/06/2019 14:17	WG1341137
Trichloroethene	U		0.153	0.500	1	09/06/2019 14:17	WG1341137
Trichlorofluoromethane	U		0.130	2.50	1	09/06/2019 14:17	WG1341137
1,2,3-Trichloropropane	U		0.247	2.50	1	09/06/2019 14:17	WG1341137
1,2,4-Trimethylbenzene	U		0.123	0.500	1	09/06/2019 14:17	WG1341137
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	09/06/2019 14:17	WG1341137
1,3,5-Trimethylbenzene	U		0.124	0.500	1	09/06/2019 14:17	WG1341137
Vinyl acetate	U		0.645	5.00	1	09/06/2019 14:17	WG1341137
Vinyl chloride	U		0.118	0.500	1	09/06/2019 14:17	WG1341137
Xylenes, Total	U		0.316	1.50	1	09/06/2019 14:17	WG1341137
tert-Butyl alcohol	3.72	J JO J4	2.40	5.00	1	09/06/2019 14:17	WG1341137
Ethyl tert-butyl ether	U		0.270	1.00	1	09/06/2019 14:17	WG1341137
tert-Amyl Methyl Ether	U		0.260	1.00	1	09/06/2019 14:17	WG1341137
Ethanol	U		42.0	100	1	09/09/2019 14:21	WG1342309
(S) Toluene-d8	103			80.0-120		09/06/2019 14:17	WG1341137
(S) Toluene-d8	113			80.0-120		09/09/2019 14:21	WG1342309
(S) 4-Bromofluorobenzene	98.2			77.0-126		09/06/2019 14:17	WG1341137
(S) 4-Bromofluorobenzene	92.6			77.0-126		09/09/2019 14:21	WG1342309
(S) 1,2-Dichloroethane-d4	104			70.0-130		09/06/2019 14:17	WG1341137
(S) 1,2-Dichloroethane-d4	104			70.0-130		09/09/2019 14:21	WG1342309

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

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00240	0.0100	1	09/04/2019 02:12	WG1337585

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)	107	J	66.7	200	1	09/04/2019 13:45	WG1338613
Residual Range Organics (RRO)	98.9	J	83.3	250	1	09/04/2019 13:45	WG1338613
(S) o-Terphenyl	85.3			52.0-156		09/04/2019 13:45	WG1338613



Collected date/time: 08/27/19 13:06

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Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U	<u>J4</u>	0.00410	0.0500	1	09/03/2019 00:40	WG1338624
Benzo(a)pyrene	U		0.0116	0.0500	1	09/03/2019 00:40	WG1338624
Benzo(b)fluoranthene	U		0.00212	0.0500	1	09/03/2019 00:40	WG1338624
Benzo(k)fluoranthene	U		0.0136	0.0500	1	09/03/2019 00:40	WG1338624
Chrysene	U		0.0108	0.0500	1	09/03/2019 00:40	WG1338624
Dibenz(a,h)anthracene	U	<u>J3</u>	0.00396	0.0500	1	09/03/2019 00:40	WG1338624
Indeno(1,2,3-cd)pyrene	U	<u>J3</u>	0.0148	0.0500	1	09/03/2019 00:40	WG1338624
Naphthalene	0.0350	<u>B J</u>	0.0198	0.250	1	09/03/2019 00:40	WG1338624
1-Methylnaphthalene	U		0.00821	0.250	1	09/03/2019 00:40	WG1338624
2-Methylnaphthalene	U		0.00902	0.250	1	09/03/2019 00:40	WG1338624
(S) Nitrobenzene-d5	135			31.0-160		09/03/2019 00:40	WG1338624
(S) 2-Fluorobiphenyl	119			48.0-148		09/03/2019 00:40	WG1338624
(S) p-Terphenyl-d14	117			37.0-146		09/03/2019 00:40	WG1338624

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	2.51	J	1.90	5.00	1	08/30/2019 13:35	WG1337503

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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	U		31.6	100	1	09/02/2019 15:13	WG1338737
(S) a,a,a-Trifluorotoluene(FID)	105			78.0-120		09/02/2019 15:13	WG1338737

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	4.07	J	1.05	25.0	1	09/06/2019 14:37	WG1341137
Acrylonitrile	U		0.873	5.00	1	09/06/2019 14:37	WG1341137
Benzene	U		0.0896	0.500	1	09/06/2019 14:37	WG1341137
Bromobenzene	U		0.133	0.500	1	09/06/2019 14:37	WG1341137
Bromodichloromethane	U		0.0800	0.500	1	09/06/2019 14:37	WG1341137
Bromochloromethane	U		0.145	0.500	1	09/06/2019 14:37	WG1341137
Bromoform	U		0.186	0.500	1	09/06/2019 14:37	WG1341137
Bromomethane	U		0.157	2.50	1	09/06/2019 14:37	WG1341137
n-Butylbenzene	U		0.143	0.500	1	09/06/2019 14:37	WG1341137
sec-Butylbenzene	0.871		0.134	0.500	1	09/06/2019 14:37	WG1341137
tert-Butylbenzene	0.270	J	0.183	0.500	1	09/06/2019 14:37	WG1341137
Carbon disulfide	U		0.101	0.500	1	09/06/2019 14:37	WG1341137
Carbon tetrachloride	U		0.159	0.500	1	09/06/2019 14:37	WG1341137
Chlorobenzene	U		0.140	0.500	1	09/06/2019 14:37	WG1341137
Chlorodibromomethane	U		0.128	0.500	1	09/06/2019 14:37	WG1341137
Chloroethane	U		0.141	2.50	1	09/06/2019 14:37	WG1341137
Chloroform	U		0.0860	0.500	1	09/06/2019 14:37	WG1341137
Chloromethane	U		0.153	1.25	1	09/06/2019 14:37	WG1341137
2-Chlorotoluene	U		0.111	0.500	1	09/06/2019 14:37	WG1341137
4-Chlorotoluene	U		0.0972	0.500	1	09/06/2019 14:37	WG1341137
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	09/06/2019 14:37	WG1341137
1,2-Dibromoethane	U		0.193	0.500	1	09/06/2019 14:37	WG1341137
Dibromomethane	U		0.117	0.500	1	09/06/2019 14:37	WG1341137
1,2-Dichlorobenzene	0.134	J	0.101	0.500	1	09/06/2019 14:37	WG1341137
1,3-Dichlorobenzene	U		0.130	0.500	1	09/06/2019 14:37	WG1341137
1,4-Dichlorobenzene	U		0.121	0.500	1	09/06/2019 14:37	WG1341137
Dichlorodifluoromethane	U		0.127	2.50	1	09/06/2019 14:37	WG1341137
1,1-Dichloroethane	U		0.114	0.500	1	09/06/2019 14:37	WG1341137
1,2-Dichloroethane	U		0.108	0.500	1	09/06/2019 14:37	WG1341137
1,1-Dichloroethene	U		0.188	0.500	1	09/06/2019 14:37	WG1341137
cis-1,2-Dichloroethene	U		0.0933	0.500	1	09/06/2019 14:37	WG1341137
trans-1,2-Dichloroethene	U		0.152	0.500	1	09/06/2019 14:37	WG1341137
1,2-Dichloropropane	U		0.190	0.500	1	09/06/2019 14:37	WG1341137
1,1-Dichloropropene	U		0.128	0.500	1	09/06/2019 14:37	WG1341137
1,3-Dichloropropane	U		0.147	1.00	1	09/06/2019 14:37	WG1341137
cis-1,3-Dichloropropene	U		0.0976	0.500	1	09/06/2019 14:37	WG1341137
trans-1,3-Dichloropropene	U		0.222	0.500	1	09/06/2019 14:37	WG1341137
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	09/06/2019 14:37	WG1341137
2,2-Dichloropropane	U		0.0929	0.500	1	09/06/2019 14:37	WG1341137
Di-isopropyl ether	U		0.0924	0.500	1	09/06/2019 14:37	WG1341137
Ethylbenzene	U		0.158	0.500	1	09/06/2019 14:37	WG1341137
Hexachloro-1,3-butadiene	U		0.157	1.00	1	09/06/2019 14:37	WG1341137
2-Hexanone	U		0.757	5.00	1	09/06/2019 14:37	WG1341137



Collected date/time: 08/27/19 14:45

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
n-Hexane	U		0.305	5.00	1	09/06/2019 14:37	WG1341137
Iodomethane	U		0.377	10.0	1	09/06/2019 14:37	WG1341137
Isopropylbenzene	U		0.126	0.500	1	09/06/2019 14:37	WG1341137
p-Isopropyltoluene	U		0.138	0.500	1	09/06/2019 14:37	WG1341137
2-Butanone (MEK)	U		1.28	5.00	1	09/06/2019 14:37	WG1341137
Methylene Chloride	U		1.07	2.50	1	09/06/2019 14:37	WG1341137
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	09/06/2019 14:37	WG1341137
Methyl tert-butyl ether	0.818		0.102	0.500	1	09/06/2019 14:37	WG1341137
Naphthalene	U		0.174	2.50	1	09/06/2019 14:37	WG1341137
n-Propylbenzene	U		0.162	0.500	1	09/06/2019 14:37	WG1341137
Styrene	U		0.117	0.500	1	09/06/2019 14:37	WG1341137
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	09/06/2019 14:37	WG1341137
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	09/06/2019 14:37	WG1341137
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	09/06/2019 14:37	WG1341137
Tetrachloroethene	U		0.199	0.500	1	09/06/2019 14:37	WG1341137
Toluene	U		0.412	0.500	1	09/06/2019 14:37	WG1341137
1,2,3-Trichlorobenzene	U		0.164	0.500	1	09/06/2019 14:37	WG1341137
1,2,4-Trichlorobenzene	U		0.355	0.500	1	09/06/2019 14:37	WG1341137
1,1,1-Trichloroethane	U		0.0940	0.500	1	09/06/2019 14:37	WG1341137
1,1,2-Trichloroethane	U		0.186	0.500	1	09/06/2019 14:37	WG1341137
Trichloroethene	U		0.153	0.500	1	09/06/2019 14:37	WG1341137
Trichlorofluoromethane	U		0.130	2.50	1	09/06/2019 14:37	WG1341137
1,2,3-Trichloropropane	U		0.247	2.50	1	09/06/2019 14:37	WG1341137
1,2,4-Trimethylbenzene	U		0.123	0.500	1	09/06/2019 14:37	WG1341137
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	09/06/2019 14:37	WG1341137
1,3,5-Trimethylbenzene	U		0.124	0.500	1	09/06/2019 14:37	WG1341137
Vinyl acetate	U		0.645	5.00	1	09/06/2019 14:37	WG1341137
Vinyl chloride	U		0.118	0.500	1	09/06/2019 14:37	WG1341137
Xylenes, Total	U		0.316	1.50	1	09/06/2019 14:37	WG1341137
tert-Butyl alcohol	11.8	JO J4	2.40	5.00	1	09/06/2019 14:37	WG1341137
Ethyl tert-butyl ether	U		0.270	1.00	1	09/06/2019 14:37	WG1341137
tert-Amyl Methyl Ether	U		0.260	1.00	1	09/06/2019 14:37	WG1341137
Ethanol	U		42.0	100	1	09/09/2019 14:42	WG1342309
(S) Toluene-d8	98.7			80.0-120		09/06/2019 14:37	WG1341137
(S) Toluene-d8	107			80.0-120		09/09/2019 14:42	WG1342309
(S) 4-Bromofluorobenzene	96.1			77.0-126		09/06/2019 14:37	WG1341137
(S) 4-Bromofluorobenzene	90.9			77.0-126		09/09/2019 14:42	WG1342309
(S) 1,2-Dichloroethane-d4	105			70.0-130		09/06/2019 14:37	WG1341137
(S) 1,2-Dichloroethane-d4	105			70.0-130		09/09/2019 14:42	WG1342309

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

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00242	0.0101	1.01	09/04/2019 02:24	WG1337585

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)	227		66.7	200	1	09/04/2019 14:05	WG1338613
Residual Range Organics (RRO)	295		83.3	250	1	09/04/2019 14:05	WG1338613
(S) o-Terphenyl	85.3			52.0-156		09/04/2019 14:05	WG1338613



Collected date/time: 08/27/19 14:45

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Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U	J4	0.00410	0.0500	1	09/03/2019 01:01	WG1338624
Benzo(a)pyrene	U		0.0116	0.0500	1	09/03/2019 01:01	WG1338624
Benzo(b)fluoranthene	U		0.00212	0.0500	1	09/03/2019 01:01	WG1338624
Benzo(k)fluoranthene	U		0.0136	0.0500	1	09/03/2019 01:01	WG1338624
Chrysene	U		0.0108	0.0500	1	09/03/2019 01:01	WG1338624
Dibenz(a,h)anthracene	U	J3	0.00396	0.0500	1	09/03/2019 01:01	WG1338624
Indeno(1,2,3-cd)pyrene	U	J3	0.0148	0.0500	1	09/03/2019 01:01	WG1338624
Naphthalene	0.169	B J	0.0198	0.250	1	09/03/2019 01:01	WG1338624
1-Methylnaphthalene	0.0102	J	0.00821	0.250	1	09/03/2019 01:01	WG1338624
2-Methylnaphthalene	0.0107	J	0.00902	0.250	1	09/03/2019 01:01	WG1338624
(S) Nitrobenzene-d5	131			31.0-160		09/03/2019 01:01	WG1338624
(S) 2-Fluorobiphenyl	120			48.0-148		09/03/2019 01:01	WG1338624
(S) p-Terphenyl-d14	118			37.0-146		09/03/2019 01:01	WG1338624

1
Cp2
Tc3
Ss4
Cn5
Sr6
Qc7
Gl8
Al9
Sc



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	3.18	<u>J</u>	1.90	5.00	1	08/30/2019 13:38	WG1337503

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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	U		31.6	100	1	09/02/2019 15:37	WG1338737
(S) a,a,a-Trifluorotoluene(FID)	108			78.0-120		09/02/2019 15:37	WG1338737

6 Qc

7 Gl

8 Al

9 Sc

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	09/05/2019 04:56	WG1340167
Toluene	U		0.412	1.00	1	09/05/2019 04:56	WG1340167
Ethylbenzene	U		0.384	1.00	1	09/05/2019 04:56	WG1340167
Total Xylenes	U	<u>J4</u>	1.06	3.00	1	09/05/2019 04:56	WG1340167
Methyl tert-butyl ether	U		0.367	1.00	1	09/05/2019 04:56	WG1340167
1,2-Dichloroethane	U		0.361	1.00	1	09/05/2019 04:56	WG1340167
(S) Toluene-d8	114			80.0-120		09/05/2019 04:56	WG1340167
(S) 4-Bromofluorobenzene	87.5			77.0-126		09/05/2019 04:56	WG1340167
(S) 1,2-Dichloroethane-d4	103			70.0-130		09/05/2019 04:56	WG1340167

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00245	0.0102	1.02	09/04/2019 04:01	WG1338717

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)	79.6	<u>J</u>	66.7	200	1	09/04/2019 14:25	WG1338613
Residual Range Organics (RRO)	85.9	<u>J</u>	83.3	250	1	09/04/2019 14:25	WG1338613
(S) o-Terphenyl	83.7			52.0-156		09/04/2019 14:25	WG1338613

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U	<u>J4</u>	0.00410	0.0500	1	09/03/2019 01:22	WG1338624
Benzo(a)pyrene	U		0.0116	0.0500	1	09/03/2019 01:22	WG1338624
Benzo(b)fluoranthene	U		0.00212	0.0500	1	09/03/2019 01:22	WG1338624
Benzo(k)fluoranthene	U		0.0136	0.0500	1	09/03/2019 01:22	WG1338624
Chrysene	U		0.0108	0.0500	1	09/03/2019 01:22	WG1338624
Dibenz(a,h)anthracene	U	<u>J3</u>	0.00396	0.0500	1	09/03/2019 01:22	WG1338624
Indeno(1,2,3-cd)pyrene	U	<u>J3</u>	0.0148	0.0500	1	09/03/2019 01:22	WG1338624
Naphthalene	0.0249	<u>B J</u>	0.0198	0.250	1	09/03/2019 01:22	WG1338624
1-Methylnaphthalene	U		0.00821	0.250	1	09/03/2019 01:22	WG1338624
2-Methylnaphthalene	U		0.00902	0.250	1	09/03/2019 01:22	WG1338624
(S) Nitrobenzene-d5	124			31.0-160		09/03/2019 01:22	WG1338624
(S) 2-Fluorobiphenyl	123			48.0-148		09/03/2019 01:22	WG1338624
(S) p-Terphenyl-d14	118			37.0-146		09/03/2019 01:22	WG1338624



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	U		1.90	5.00	1	08/30/2019 13:41	WG1337503

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr

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	260		31.6	100	1	09/02/2019 16:01	WG1338737
(S) a,a,a-Trifluorotoluene(FID)	90.5			78.0-120		09/02/2019 16:01	WG1338737

⁶ Qc⁷ Gl⁸ Al⁹ Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	09/06/2019 14:58	WG1341137
Acrylonitrile	U		0.873	5.00	1	09/06/2019 14:58	WG1341137
Benzene	3.11		0.0896	0.500	1	09/06/2019 14:58	WG1341137
Bromobenzene	U		0.133	0.500	1	09/06/2019 14:58	WG1341137
Bromodichloromethane	U		0.0800	0.500	1	09/06/2019 14:58	WG1341137
Bromochloromethane	U		0.145	0.500	1	09/06/2019 14:58	WG1341137
Bromoform	U		0.186	0.500	1	09/06/2019 14:58	WG1341137
Bromomethane	U		0.157	2.50	1	09/06/2019 14:58	WG1341137
n-Butylbenzene	U		0.143	0.500	1	09/06/2019 14:58	WG1341137
sec-Butylbenzene	0.836		0.134	0.500	1	09/06/2019 14:58	WG1341137
tert-Butylbenzene	U		0.183	0.500	1	09/06/2019 14:58	WG1341137
Carbon disulfide	U		0.101	0.500	1	09/06/2019 14:58	WG1341137
Carbon tetrachloride	U		0.159	0.500	1	09/06/2019 14:58	WG1341137
Chlorobenzene	U		0.140	0.500	1	09/06/2019 14:58	WG1341137
Chlorodibromomethane	U		0.128	0.500	1	09/06/2019 14:58	WG1341137
Chloroethane	U		0.141	2.50	1	09/06/2019 14:58	WG1341137
Chloroform	U		0.0860	0.500	1	09/06/2019 14:58	WG1341137
Chloromethane	U		0.153	1.25	1	09/06/2019 14:58	WG1341137
2-Chlorotoluene	U		0.111	0.500	1	09/06/2019 14:58	WG1341137
4-Chlorotoluene	U		0.0972	0.500	1	09/06/2019 14:58	WG1341137
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	09/06/2019 14:58	WG1341137
1,2-Dibromoethane	U		0.193	0.500	1	09/06/2019 14:58	WG1341137
Dibromomethane	U		0.117	0.500	1	09/06/2019 14:58	WG1341137
1,2-Dichlorobenzene	U		0.101	0.500	1	09/06/2019 14:58	WG1341137
1,3-Dichlorobenzene	U		0.130	0.500	1	09/06/2019 14:58	WG1341137
1,4-Dichlorobenzene	U		0.121	0.500	1	09/06/2019 14:58	WG1341137
Dichlorodifluoromethane	U		0.127	2.50	1	09/06/2019 14:58	WG1341137
1,1-Dichloroethane	U		0.114	0.500	1	09/06/2019 14:58	WG1341137
1,2-Dichloroethane	U		0.108	0.500	1	09/06/2019 14:58	WG1341137
1,1-Dichloroethene	U		0.188	0.500	1	09/06/2019 14:58	WG1341137
cis-1,2-Dichloroethene	U		0.0933	0.500	1	09/06/2019 14:58	WG1341137
trans-1,2-Dichloroethene	U		0.152	0.500	1	09/06/2019 14:58	WG1341137
1,2-Dichloropropane	U		0.190	0.500	1	09/06/2019 14:58	WG1341137
1,1-Dichloropropene	U		0.128	0.500	1	09/06/2019 14:58	WG1341137
1,3-Dichloropropane	U		0.147	1.00	1	09/06/2019 14:58	WG1341137
cis-1,3-Dichloropropene	U		0.0976	0.500	1	09/06/2019 14:58	WG1341137
trans-1,3-Dichloropropene	U		0.222	0.500	1	09/06/2019 14:58	WG1341137
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	09/06/2019 14:58	WG1341137
2,2-Dichloropropane	U		0.0929	0.500	1	09/06/2019 14:58	WG1341137
Di-isopropyl ether	U		0.0924	0.500	1	09/06/2019 14:58	WG1341137
Ethylbenzene	0.705		0.158	0.500	1	09/06/2019 14:58	WG1341137
Hexachloro-1,3-butadiene	U		0.157	1.00	1	09/06/2019 14:58	WG1341137
2-Hexanone	U		0.757	5.00	1	09/06/2019 14:58	WG1341137



Collected date/time: 08/27/19 16:00

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
n-Hexane	U		0.305	5.00	1	09/06/2019 14:58	WG1341137
Iodomethane	U		0.377	10.0	1	09/06/2019 14:58	WG1341137
Isopropylbenzene	2.74		0.126	0.500	1	09/06/2019 14:58	WG1341137
p-Isopropyltoluene	0.399	J	0.138	0.500	1	09/06/2019 14:58	WG1341137
2-Butanone (MEK)	U		1.28	5.00	1	09/06/2019 14:58	WG1341137
Methylene Chloride	U		1.07	2.50	1	09/06/2019 14:58	WG1341137
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	09/06/2019 14:58	WG1341137
Methyl tert-butyl ether	U		0.102	0.500	1	09/06/2019 14:58	WG1341137
Naphthalene	0.192	J	0.174	2.50	1	09/06/2019 14:58	WG1341137
n-Propylbenzene	1.10		0.162	0.500	1	09/06/2019 14:58	WG1341137
Styrene	U		0.117	0.500	1	09/06/2019 14:58	WG1341137
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	09/06/2019 14:58	WG1341137
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	09/06/2019 14:58	WG1341137
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	09/06/2019 14:58	WG1341137
Tetrachloroethene	U		0.199	0.500	1	09/06/2019 14:58	WG1341137
Toluene	U		0.412	0.500	1	09/06/2019 14:58	WG1341137
1,2,3-Trichlorobenzene	U		0.164	0.500	1	09/06/2019 14:58	WG1341137
1,2,4-Trichlorobenzene	U		0.355	0.500	1	09/06/2019 14:58	WG1341137
1,1,1-Trichloroethane	U		0.0940	0.500	1	09/06/2019 14:58	WG1341137
1,1,2-Trichloroethane	U		0.186	0.500	1	09/06/2019 14:58	WG1341137
Trichloroethene	U		0.153	0.500	1	09/06/2019 14:58	WG1341137
Trichlorofluoromethane	U		0.130	2.50	1	09/06/2019 14:58	WG1341137
1,2,3-Trichloropropane	U		0.247	2.50	1	09/06/2019 14:58	WG1341137
1,2,4-Trimethylbenzene	0.884		0.123	0.500	1	09/06/2019 14:58	WG1341137
1,2,3-Trimethylbenzene	0.228	J	0.0739	0.500	1	09/06/2019 14:58	WG1341137
1,3,5-Trimethylbenzene	0.808		0.124	0.500	1	09/06/2019 14:58	WG1341137
Vinyl acetate	U		0.645	5.00	1	09/06/2019 14:58	WG1341137
Vinyl chloride	U		0.118	0.500	1	09/06/2019 14:58	WG1341137
Xylenes, Total	0.404	J	0.316	1.50	1	09/06/2019 14:58	WG1341137
tert-Butyl alcohol	14.6	JO J4	2.40	5.00	1	09/06/2019 14:58	WG1341137
Ethyl tert-butyl ether	U		0.270	1.00	1	09/06/2019 14:58	WG1341137
tert-Amyl Methyl Ether	U		0.260	1.00	1	09/06/2019 14:58	WG1341137
Ethanol	U		42.0	100	1	09/09/2019 15:03	WG1342309
(S) Toluene-d8	101			80.0-120		09/06/2019 14:58	WG1341137
(S) Toluene-d8	110			80.0-120		09/09/2019 15:03	WG1342309
(S) 4-Bromofluorobenzene	96.9			77.0-126		09/06/2019 14:58	WG1341137
(S) 4-Bromofluorobenzene	92.8			77.0-126		09/09/2019 15:03	WG1342309
(S) 1,2-Dichloroethane-d4	103			70.0-130		09/06/2019 14:58	WG1341137
(S) 1,2-Dichloroethane-d4	104			70.0-130		09/09/2019 15:03	WG1342309

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

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00245	0.0102	1.02	09/04/2019 04:14	WG1338717

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)	404		66.7	200	1	09/04/2019 14:45	WG1338613
Residual Range Organics (RRO)	192	J	83.3	250	1	09/04/2019 14:45	WG1338613
(S) o-Terphenyl	88.9			52.0-156		09/04/2019 14:45	WG1338613



Collected date/time: 08/27/19 16:00

L1134377

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U	J4	0.00410	0.0500	1	09/03/2019 01:43	WG1338624
Benzo(a)pyrene	U		0.0116	0.0500	1	09/03/2019 01:43	WG1338624
Benzo(b)fluoranthene	U		0.00212	0.0500	1	09/03/2019 01:43	WG1338624
Benzo(k)fluoranthene	U		0.0136	0.0500	1	09/03/2019 01:43	WG1338624
Chrysene	U		0.0108	0.0500	1	09/03/2019 01:43	WG1338624
Dibenz(a,h)anthracene	U	J3	0.00396	0.0500	1	09/03/2019 01:43	WG1338624
Indeno(1,2,3-cd)pyrene	U	J3	0.0148	0.0500	1	09/03/2019 01:43	WG1338624
Naphthalene	0.257	B	0.0198	0.250	1	09/03/2019 01:43	WG1338624
1-Methylnaphthalene	0.235	J	0.00821	0.250	1	09/03/2019 01:43	WG1338624
2-Methylnaphthalene	0.0224	J	0.00902	0.250	1	09/03/2019 01:43	WG1338624
(S) Nitrobenzene-d5	119			31.0-160		09/03/2019 01:43	WG1338624
(S) 2-Fluorobiphenyl	117			48.0-148		09/03/2019 01:43	WG1338624
(S) p-Terphenyl-d14	118			37.0-146		09/03/2019 01:43	WG1338624

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	8.01		1.90	5.00	1	08/30/2019 13:43	WG1337503

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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	2750		31.6	100	1	09/02/2019 16:25	WG1338737
(S) a,a,a-Trifluorotoluene(FID)	96.8			78.0-120		09/02/2019 16:25	WG1338737

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	09/06/2019 15:18	WG1341137
Acrylonitrile	U		0.873	5.00	1	09/06/2019 15:18	WG1341137
Benzene	U		0.0896	0.500	1	09/06/2019 15:18	WG1341137
Bromobenzene	U		0.133	0.500	1	09/06/2019 15:18	WG1341137
Bromodichloromethane	U		0.0800	0.500	1	09/06/2019 15:18	WG1341137
Bromochloromethane	U		0.145	0.500	1	09/06/2019 15:18	WG1341137
Bromoform	U		0.186	0.500	1	09/06/2019 15:18	WG1341137
Bromomethane	U		0.157	2.50	1	09/06/2019 15:18	WG1341137
n-Butylbenzene	U		0.143	0.500	1	09/06/2019 15:18	WG1341137
sec-Butylbenzene	3.99		0.134	0.500	1	09/06/2019 15:18	WG1341137
tert-Butylbenzene	U		0.183	0.500	1	09/06/2019 15:18	WG1341137
Carbon disulfide	0.614		0.101	0.500	1	09/06/2019 15:18	WG1341137
Carbon tetrachloride	U		0.159	0.500	1	09/06/2019 15:18	WG1341137
Chlorobenzene	U		0.140	0.500	1	09/06/2019 15:18	WG1341137
Chlorodibromomethane	U		0.128	0.500	1	09/06/2019 15:18	WG1341137
Chloroethane	U		0.141	2.50	1	09/06/2019 15:18	WG1341137
Chloroform	U		0.0860	0.500	1	09/06/2019 15:18	WG1341137
Chloromethane	U		0.153	1.25	1	09/06/2019 15:18	WG1341137
2-Chlorotoluene	1.71		0.111	0.500	1	09/06/2019 15:18	WG1341137
4-Chlorotoluene	U		0.0972	0.500	1	09/06/2019 15:18	WG1341137
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	09/06/2019 15:18	WG1341137
1,2-Dibromoethane	U		0.193	0.500	1	09/06/2019 15:18	WG1341137
Dibromomethane	U		0.117	0.500	1	09/06/2019 15:18	WG1341137
1,2-Dichlorobenzene	U		0.101	0.500	1	09/06/2019 15:18	WG1341137
1,3-Dichlorobenzene	U		0.130	0.500	1	09/06/2019 15:18	WG1341137
1,4-Dichlorobenzene	U		0.121	0.500	1	09/06/2019 15:18	WG1341137
Dichlorodifluoromethane	U		0.127	2.50	1	09/06/2019 15:18	WG1341137
1,1-Dichloroethane	U		0.114	0.500	1	09/06/2019 15:18	WG1341137
1,2-Dichloroethane	U		0.108	0.500	1	09/06/2019 15:18	WG1341137
1,1-Dichloroethene	U		0.188	0.500	1	09/06/2019 15:18	WG1341137
cis-1,2-Dichloroethene	U		0.0933	0.500	1	09/06/2019 15:18	WG1341137
trans-1,2-Dichloroethene	U		0.152	0.500	1	09/06/2019 15:18	WG1341137
1,2-Dichloropropane	U		0.190	0.500	1	09/06/2019 15:18	WG1341137
1,1-Dichloropropene	U		0.128	0.500	1	09/06/2019 15:18	WG1341137
1,3-Dichloropropane	U		0.147	1.00	1	09/06/2019 15:18	WG1341137
cis-1,3-Dichloropropene	U		0.0976	0.500	1	09/06/2019 15:18	WG1341137
trans-1,3-Dichloropropene	U		0.222	0.500	1	09/06/2019 15:18	WG1341137
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	09/06/2019 15:18	WG1341137
2,2-Dichloropropane	U		0.0929	0.500	1	09/06/2019 15:18	WG1341137
Di-isopropyl ether	U		0.0924	0.500	1	09/06/2019 15:18	WG1341137
Ethylbenzene	12.0		0.158	0.500	1	09/06/2019 15:18	WG1341137
Hexachloro-1,3-butadiene	U		0.157	1.00	1	09/06/2019 15:18	WG1341137
2-Hexanone	U		0.757	5.00	1	09/06/2019 15:18	WG1341137



Collected date/time: 08/27/19 16:25

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
n-Hexane	6.17		0.305	5.00	1	09/06/2019 15:18	WG1341137
Iodomethane	U		0.377	10.0	1	09/06/2019 15:18	WG1341137
Isopropylbenzene	12.7		0.126	0.500	1	09/06/2019 15:18	WG1341137
p-Isopropyltoluene	8.59		0.138	0.500	1	09/06/2019 15:18	WG1341137
2-Butanone (MEK)	U		1.28	5.00	1	09/06/2019 15:18	WG1341137
Methylene Chloride	U		1.07	2.50	1	09/06/2019 15:18	WG1341137
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	09/06/2019 15:18	WG1341137
Methyl tert-butyl ether	U		0.102	0.500	1	09/06/2019 15:18	WG1341137
Naphthalene	1.88	L	0.174	2.50	1	09/06/2019 15:18	WG1341137
n-Propylbenzene	15.3		0.162	0.500	1	09/06/2019 15:18	WG1341137
Styrene	U		0.117	0.500	1	09/06/2019 15:18	WG1341137
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	09/06/2019 15:18	WG1341137
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	09/06/2019 15:18	WG1341137
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	09/06/2019 15:18	WG1341137
Tetrachloroethene	U		0.199	0.500	1	09/06/2019 15:18	WG1341137
Toluene	U		0.412	0.500	1	09/06/2019 15:18	WG1341137
1,2,3-Trichlorobenzene	U		0.164	0.500	1	09/06/2019 15:18	WG1341137
1,2,4-Trichlorobenzene	U		0.355	0.500	1	09/06/2019 15:18	WG1341137
1,1,1-Trichloroethane	U		0.0940	0.500	1	09/06/2019 15:18	WG1341137
1,1,2-Trichloroethane	U		0.186	0.500	1	09/06/2019 15:18	WG1341137
Trichloroethene	U		0.153	0.500	1	09/06/2019 15:18	WG1341137
Trichlorofluoromethane	U		0.130	2.50	1	09/06/2019 15:18	WG1341137
1,2,3-Trichloropropane	U		0.247	2.50	1	09/06/2019 15:18	WG1341137
1,2,4-Trimethylbenzene	73.0		0.123	0.500	1	09/06/2019 15:18	WG1341137
1,2,3-Trimethylbenzene	10.2		0.0739	0.500	1	09/06/2019 15:18	WG1341137
1,3,5-Trimethylbenzene	16.5		0.124	0.500	1	09/06/2019 15:18	WG1341137
Vinyl acetate	U		0.645	5.00	1	09/06/2019 15:18	WG1341137
Vinyl chloride	U		0.118	0.500	1	09/06/2019 15:18	WG1341137
Xylenes, Total	13.9		0.316	1.50	1	09/06/2019 15:18	WG1341137
tert-Butyl alcohol	7.02	JO J4	2.40	5.00	1	09/06/2019 15:18	WG1341137
Ethyl tert-butyl ether	U		0.270	1.00	1	09/06/2019 15:18	WG1341137
tert-Amyl Methyl Ether	U		0.260	1.00	1	09/06/2019 15:18	WG1341137
Ethanol	U		42.0	100	1	09/09/2019 15:23	WG1342309
(S) Toluene-d8	110			80.0-120		09/06/2019 15:18	WG1341137
(S) Toluene-d8	98.5			80.0-120		09/09/2019 15:23	WG1342309
(S) 4-Bromofluorobenzene	107			77.0-126		09/06/2019 15:18	WG1341137
(S) 4-Bromofluorobenzene	94.0			77.0-126		09/09/2019 15:23	WG1342309
(S) 1,2-Dichloroethane-d4	108			70.0-130		09/06/2019 15:18	WG1341137
(S) 1,2-Dichloroethane-d4	105			70.0-130		09/09/2019 15:23	WG1342309

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

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00245	0.0102	1.02	09/04/2019 04:26	WG1338717

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)	777		133	400	2	09/04/2019 15:05	WG1338613
Residual Range Organics (RRO)	U		167	500	2	09/04/2019 15:05	WG1338613
(S) o-Terphenyl	70.5			52.0-156		09/04/2019 15:05	WG1338613

Sample Narrative:

L1134377-05 WG1338613: Dilution due to matrix impact during extraction procedure



Collected date/time: 08/27/19 16:25

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Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U	J4	0.00410	0.0500	1	09/03/2019 02:04	WG1338624
Benzo(a)pyrene	U		0.0116	0.0500	1	09/03/2019 02:04	WG1338624
Benzo(b)fluoranthene	U		0.00212	0.0500	1	09/03/2019 02:04	WG1338624
Benzo(k)fluoranthene	U		0.0136	0.0500	1	09/03/2019 02:04	WG1338624
Chrysene	U		0.0108	0.0500	1	09/03/2019 02:04	WG1338624
Dibenz(a,h)anthracene	U	J3	0.00396	0.0500	1	09/03/2019 02:04	WG1338624
Indeno(1,2,3-cd)pyrene	U	J3	0.0148	0.0500	1	09/03/2019 02:04	WG1338624
Naphthalene	0.642		0.0198	0.250	1	09/03/2019 02:04	WG1338624
1-Methylnaphthalene	0.0389	J	0.00821	0.250	1	09/03/2019 02:04	WG1338624
2-Methylnaphthalene	0.140	J	0.00902	0.250	1	09/03/2019 02:04	WG1338624
(S) Nitrobenzene-d5	90.5			31.0-160		09/03/2019 02:04	WG1338624
(S) 2-Fluorobiphenyl	97.4			48.0-148		09/03/2019 02:04	WG1338624
(S) p-Terphenyl-d14	75.3			37.0-146		09/03/2019 02:04	WG1338624

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	9.72		1.90	5.00	1	08/30/2019 13:46	WG1337503

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr

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	2570		31.6	100	1	09/02/2019 16:49	WG1338737
(S) a,a,a-Trifluorotoluene(FID)	97.3			78.0-120		09/02/2019 16:49	WG1338737

⁶ Qc⁷ Gl⁸ Al⁹ Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	09/06/2019 15:38	WG1341137
Acrylonitrile	U		0.873	5.00	1	09/06/2019 15:38	WG1341137
Benzene	U		0.0896	0.500	1	09/06/2019 15:38	WG1341137
Bromobenzene	U		0.133	0.500	1	09/06/2019 15:38	WG1341137
Bromodichloromethane	U		0.0800	0.500	1	09/06/2019 15:38	WG1341137
Bromochloromethane	U		0.145	0.500	1	09/06/2019 15:38	WG1341137
Bromoform	U		0.186	0.500	1	09/06/2019 15:38	WG1341137
Bromomethane	U		0.157	2.50	1	09/06/2019 15:38	WG1341137
n-Butylbenzene	1.27		0.143	0.500	1	09/06/2019 15:38	WG1341137
sec-Butylbenzene	4.04		0.134	0.500	1	09/06/2019 15:38	WG1341137
tert-Butylbenzene	0.446	J	0.183	0.500	1	09/06/2019 15:38	WG1341137
Carbon disulfide	0.345	J	0.101	0.500	1	09/06/2019 15:38	WG1341137
Carbon tetrachloride	U		0.159	0.500	1	09/06/2019 15:38	WG1341137
Chlorobenzene	U		0.140	0.500	1	09/06/2019 15:38	WG1341137
Chlorodibromomethane	U		0.128	0.500	1	09/06/2019 15:38	WG1341137
Chloroethane	U		0.141	2.50	1	09/06/2019 15:38	WG1341137
Chloroform	U		0.0860	0.500	1	09/06/2019 15:38	WG1341137
Chloromethane	U		0.153	1.25	1	09/06/2019 15:38	WG1341137
2-Chlorotoluene	U		0.111	0.500	1	09/06/2019 15:38	WG1341137
4-Chlorotoluene	U		0.0972	0.500	1	09/06/2019 15:38	WG1341137
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	09/06/2019 15:38	WG1341137
1,2-Dibromoethane	U		0.193	0.500	1	09/06/2019 15:38	WG1341137
Dibromomethane	U		0.117	0.500	1	09/06/2019 15:38	WG1341137
1,2-Dichlorobenzene	U		0.101	0.500	1	09/06/2019 15:38	WG1341137
1,3-Dichlorobenzene	U		0.130	0.500	1	09/06/2019 15:38	WG1341137
1,4-Dichlorobenzene	U		0.121	0.500	1	09/06/2019 15:38	WG1341137
Dichlorodifluoromethane	U		0.127	2.50	1	09/06/2019 15:38	WG1341137
1,1-Dichloroethane	U		0.114	0.500	1	09/06/2019 15:38	WG1341137
1,2-Dichloroethane	U		0.108	0.500	1	09/06/2019 15:38	WG1341137
1,1-Dichloroethene	U		0.188	0.500	1	09/06/2019 15:38	WG1341137
cis-1,2-Dichloroethene	U		0.0933	0.500	1	09/06/2019 15:38	WG1341137
trans-1,2-Dichloroethene	U		0.152	0.500	1	09/06/2019 15:38	WG1341137
1,2-Dichloropropane	U		0.190	0.500	1	09/06/2019 15:38	WG1341137
1,1-Dichloropropene	U		0.128	0.500	1	09/06/2019 15:38	WG1341137
1,3-Dichloropropane	U		0.147	1.00	1	09/06/2019 15:38	WG1341137
cis-1,3-Dichloropropene	U		0.0976	0.500	1	09/06/2019 15:38	WG1341137
trans-1,3-Dichloropropene	U		0.222	0.500	1	09/06/2019 15:38	WG1341137
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	09/06/2019 15:38	WG1341137
2,2-Dichloropropane	U		0.0929	0.500	1	09/06/2019 15:38	WG1341137
Di-isopropyl ether	U		0.0924	0.500	1	09/06/2019 15:38	WG1341137
Ethylbenzene	11.5		0.158	0.500	1	09/06/2019 15:38	WG1341137
Hexachloro-1,3-butadiene	U		0.157	1.00	1	09/06/2019 15:38	WG1341137
2-Hexanone	U		0.757	5.00	1	09/06/2019 15:38	WG1341137



Collected date/time: 08/27/19 00:00

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
n-Hexane	4.62	J	0.305	5.00	1	09/06/2019 15:38	WG1341137
Iodomethane	U		0.377	10.0	1	09/06/2019 15:38	WG1341137
Isopropylbenzene	12.2		0.126	0.500	1	09/06/2019 15:38	WG1341137
p-Isopropyltoluene	9.43		0.138	0.500	1	09/06/2019 15:38	WG1341137
2-Butanone (MEK)	U		1.28	5.00	1	09/06/2019 15:38	WG1341137
Methylene Chloride	U		1.07	2.50	1	09/06/2019 15:38	WG1341137
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	09/06/2019 15:38	WG1341137
Methyl tert-butyl ether	U		0.102	0.500	1	09/06/2019 15:38	WG1341137
Naphthalene	2.10	J	0.174	2.50	1	09/06/2019 15:38	WG1341137
n-Propylbenzene	15.7		0.162	0.500	1	09/06/2019 15:38	WG1341137
Styrene	U		0.117	0.500	1	09/06/2019 15:38	WG1341137
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	09/06/2019 15:38	WG1341137
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	09/06/2019 15:38	WG1341137
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	09/06/2019 15:38	WG1341137
Tetrachloroethene	U		0.199	0.500	1	09/06/2019 15:38	WG1341137
Toluene	U		0.412	0.500	1	09/06/2019 15:38	WG1341137
1,2,3-Trichlorobenzene	U		0.164	0.500	1	09/06/2019 15:38	WG1341137
1,2,4-Trichlorobenzene	U		0.355	0.500	1	09/06/2019 15:38	WG1341137
1,1,1-Trichloroethane	U		0.0940	0.500	1	09/06/2019 15:38	WG1341137
1,1,2-Trichloroethane	U		0.186	0.500	1	09/06/2019 15:38	WG1341137
Trichloroethene	U		0.153	0.500	1	09/06/2019 15:38	WG1341137
Trichlorofluoromethane	U		0.130	2.50	1	09/06/2019 15:38	WG1341137
1,2,3-Trichloropropane	U		0.247	2.50	1	09/06/2019 15:38	WG1341137
1,2,4-Trimethylbenzene	72.2		0.123	0.500	1	09/06/2019 15:38	WG1341137
1,2,3-Trimethylbenzene	9.47		0.0739	0.500	1	09/06/2019 15:38	WG1341137
1,3,5-Trimethylbenzene	14.3		0.124	0.500	1	09/06/2019 15:38	WG1341137
Vinyl acetate	U		0.645	5.00	1	09/06/2019 15:38	WG1341137
Vinyl chloride	U		0.118	0.500	1	09/06/2019 15:38	WG1341137
Xylenes, Total	13.1		0.316	1.50	1	09/06/2019 15:38	WG1341137
tert-Butyl alcohol	7.03	JO J4	2.40	5.00	1	09/06/2019 15:38	WG1341137
Ethyl tert-butyl ether	U		0.270	1.00	1	09/06/2019 15:38	WG1341137
tert-Amyl Methyl Ether	U		0.260	1.00	1	09/06/2019 15:38	WG1341137
Ethanol	U		42.0	100	1	09/09/2019 15:44	WG1342309
(S) Toluene-d8	106			80.0-120		09/06/2019 15:38	WG1341137
(S) Toluene-d8	101			80.0-120		09/09/2019 15:44	WG1342309
(S) 4-Bromofluorobenzene	102			77.0-126		09/06/2019 15:38	WG1341137
(S) 4-Bromofluorobenzene	92.6			77.0-126		09/09/2019 15:44	WG1342309
(S) 1,2-Dichloroethane-d4	105			70.0-130		09/06/2019 15:38	WG1341137
(S) 1,2-Dichloroethane-d4	102			70.0-130		09/09/2019 15:44	WG1342309

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

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00245	0.0102	1.02	09/04/2019 04:37	WG1338717

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)	785		133	400	2	09/04/2019 15:25	WG1338613
Residual Range Organics (RRO)	U		167	500	2	09/04/2019 15:25	WG1338613
(S) o-Terphenyl	71.6			52.0-156		09/04/2019 15:25	WG1338613

Sample Narrative:

L1134377-06 WG1338613: Dilution due to matrix impact during extraction procedure



Collected date/time: 08/27/19 00:00

L1134377

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U	J4	0.00410	0.0500	1	09/03/2019 02:24	WG1338624
Benzo(a)pyrene	U		0.0116	0.0500	1	09/03/2019 02:24	WG1338624
Benzo(b)fluoranthene	U		0.00212	0.0500	1	09/03/2019 02:24	WG1338624
Benzo(k)fluoranthene	U		0.0136	0.0500	1	09/03/2019 02:24	WG1338624
Chrysene	U		0.0108	0.0500	1	09/03/2019 02:24	WG1338624
Dibenz(a,h)anthracene	U	J3	0.00396	0.0500	1	09/03/2019 02:24	WG1338624
Indeno(1,2,3-cd)pyrene	U	J3	0.0148	0.0500	1	09/03/2019 02:24	WG1338624
Naphthalene	0.583		0.0198	0.250	1	09/03/2019 02:24	WG1338624
1-Methylnaphthalene	0.0383	J	0.00821	0.250	1	09/03/2019 02:24	WG1338624
2-Methylnaphthalene	0.134	J	0.00902	0.250	1	09/03/2019 02:24	WG1338624
(S) Nitrobenzene-d5	87.9			31.0-160		09/03/2019 02:24	WG1338624
(S) 2-Fluorobiphenyl	95.3			48.0-148		09/03/2019 02:24	WG1338624
(S) p-Terphenyl-d14	73.2			37.0-146		09/03/2019 02:24	WG1338624

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3446070-1 08/30/19 12:50

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Lead	U		1.90	5.00

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

(LCS) R3446070-2 08/30/19 12:52 • (LCSD) R3446070-3 08/30/19 12:55

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	%	%	%			%	%
Lead	1000	995	985	99.5	98.5	80.0-120			1.05	20

L1133848-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1133848-01 08/30/19 12:57 • (MS) R3446070-5 08/30/19 13:03 • (MSD) R3446070-6 08/30/19 13:05

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Lead	1000	13.9	1000	1010	98.6	99.7	1	75.0-125			1.09	20



Method Blank (MB)

(MB) R3447820-3 09/02/19 09:23

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)	106			78.0-120

Laboratory Control Sample (LCS)

(LCS) R3447820-2 09/02/19 08:17

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	5660	103	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			90.3	78.0-120	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3448010-4 09/05/19 00:33

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	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	112			80.0-120
(S) 4-Bromofluorobenzene	96.0			77.0-126
(S) 1,2-Dichloroethane-d4	102			70.0-130

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

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

(LCS) R3448010-1 09/04/19 23:06 • (LCSD) R3448010-2 09/04/19 23:27

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	21.9	24.1	87.6	96.6	70.0-123			9.71	20
1,2-Dichloroethane	25.0	22.0	24.6	87.9	98.3	70.0-128			11.1	20
Ethylbenzene	25.0	20.1	21.3	80.4	85.1	79.0-123			5.72	20
Methyl tert-butyl ether	25.0	22.0	24.6	87.9	98.6	68.0-125			11.4	20
Toluene	25.0	22.0	23.1	88.1	92.2	79.0-120			4.56	20
Xylenes, Total	75.0	58.6	61.8	78.1	82.4	79.0-123	J4		5.32	20
(S) Toluene-d8				97.1	94.5	80.0-120				
(S) 4-Bromofluorobenzene				85.1	84.2	77.0-126				
(S) 1,2-Dichloroethane-d4				105	108	70.0-130				



Method Blank (MB)

(MB) R3448239-2 09/06/19 11:05

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Method Blank (MB)

(MB) R3448239-2 09/06/19 11:05

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
tert-Amyl Methyl Ether	U		0.260	1.00
tert-Butyl alcohol	U		2.40	5.00
Ethyl tert-butyl ether	U		0.270	1.00
(S) Toluene-d8	103			80.0-120
(S) 4-Bromofluorobenzene	98.7			77.0-126
(S) 1,2-Dichloroethane-d4	105			70.0-130

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Laboratory Control Sample (LCS)

(LCS) R3448239-1 09/06/19 10:04

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Acetone	125	185	148	19.0-160	
Acrylonitrile	125	147	118	55.0-149	
Benzene	25.0	24.7	98.7	70.0-123	
Bromobenzene	25.0	27.1	108	73.0-121	
Bromodichloromethane	25.0	26.5	106	75.0-120	
Bromochloromethane	25.0	25.0	100	76.0-122	
Bromoform	25.0	28.0	112	68.0-132	
Bromomethane	25.0	24.3	97.2	10.0-160	
n-Butylbenzene	25.0	25.4	102	73.0-125	
sec-Butylbenzene	25.0	26.5	106	75.0-125	
tert-Butylbenzene	25.0	27.5	110	76.0-124	
Carbon disulfide	25.0	24.2	96.6	61.0-128	
Carbon tetrachloride	25.0	25.1	100	68.0-126	
Chlorobenzene	25.0	25.0	100	80.0-121	
Chlorodibromomethane	25.0	25.5	102	77.0-125	
Chloroethane	25.0	22.9	91.7	47.0-150	
Chloroform	25.0	25.2	101	73.0-120	
Chloromethane	25.0	22.2	88.8	41.0-142	
2-Chlorotoluene	25.0	27.8	111	76.0-123	
4-Chlorotoluene	25.0	28.3	113	75.0-122	
1,2-Dibromo-3-Chloropropane	25.0	26.1	104	58.0-134	
1,2-Dibromoethane	25.0	26.8	107	80.0-122	
Dibromomethane	25.0	25.3	101	80.0-120	
1,2-Dichlorobenzene	25.0	23.9	95.6	79.0-121	
1,3-Dichlorobenzene	25.0	24.8	99.1	79.0-120	
1,4-Dichlorobenzene	25.0	24.8	99.2	79.0-120	
Dichlorodifluoromethane	25.0	29.8	119	51.0-149	
1,1-Dichloroethane	25.0	24.0	96.1	70.0-126	
1,2-Dichloroethane	25.0	26.0	104	70.0-128	
1,1-Dichloroethene	25.0	25.1	101	71.0-124	
cis-1,2-Dichloroethene	25.0	23.8	95.3	73.0-120	
trans-1,2-Dichloroethene	25.0	25.3	101	73.0-120	
1,2-Dichloropropane	25.0	25.1	101	77.0-125	
1,1-Dichloropropene	25.0	25.2	101	74.0-126	
1,3-Dichloropropane	25.0	26.4	106	80.0-120	
cis-1,3-Dichloropropene	25.0	26.5	106	80.0-123	
trans-1,3-Dichloropropene	25.0	27.0	108	78.0-124	
trans-1,4-Dichloro-2-butene	25.0	25.1	100	33.0-144	
2,2-Dichloropropane	25.0	25.5	102	58.0-130	
Di-isopropyl ether	25.0	26.1	105	58.0-138	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Laboratory Control Sample (LCS)

(LCS) R3448239-1 09/06/19 10:04

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Ethylbenzene	25.0	25.1	100	79.0-123	
Hexachloro-1,3-butadiene	25.0	23.4	93.4	54.0-138	
2-Hexanone	125	147	117	67.0-149	
n-Hexane	25.0	25.9	104	57.0-133	
Iodomethane	125	125	100	33.0-147	
Isopropylbenzene	25.0	26.1	104	76.0-127	
p-Isopropyltoluene	25.0	26.5	106	76.0-125	
2-Butanone (MEK)	125	165	132	44.0-160	
Methylene Chloride	25.0	25.2	101	67.0-120	
4-Methyl-2-pentanone (MIBK)	125	147	118	68.0-142	
Methyl tert-butyl ether	25.0	27.3	109	68.0-125	
Naphthalene	25.0	22.3	89.0	54.0-135	
n-Propylbenzene	25.0	28.4	114	77.0-124	
Styrene	25.0	26.4	106	73.0-130	
1,1,1,2-Tetrachloroethane	25.0	25.2	101	75.0-125	
1,1,2,2-Tetrachloroethane	25.0	30.2	121	65.0-130	
1,1,2-Trichlorotrifluoroethane	25.0	26.8	107	69.0-132	
Tetrachloroethene	25.0	25.1	100	72.0-132	
Toluene	25.0	24.4	97.5	79.0-120	
1,2,3-Trichlorobenzene	25.0	23.2	92.9	50.0-138	
1,2,4-Trichlorobenzene	25.0	23.9	95.6	57.0-137	
1,1,1-Trichloroethane	25.0	25.8	103	73.0-124	
1,1,2-Trichloroethane	25.0	26.8	107	80.0-120	
Trichloroethene	25.0	25.3	101	78.0-124	
Trichlorofluoromethane	25.0	26.7	107	59.0-147	
1,2,3-Trichloropropane	25.0	31.9	128	73.0-130	
1,2,4-Trimethylbenzene	25.0	27.7	111	76.0-121	
1,2,3-Trimethylbenzene	25.0	26.0	104	77.0-120	
1,3,5-Trimethylbenzene	25.0	28.5	114	76.0-122	
Vinyl acetate	125	145	116	11.0-160	
Vinyl chloride	25.0	24.9	99.5	67.0-131	
Xylenes, Total	75.0	76.9	103	79.0-123	
tert-Amyl Methyl Ether	25.0	27.8	111	66.0-125	
tert-Butyl alcohol	25.0	230	920	27.0-160	J4
Ethyl tert-butyl ether	25.0	27.3	109	63.0-138	
(S) Toluene-d8			103	80.0-120	
(S) 4-Bromofluorobenzene			99.7	77.0-126	
(S) 1,2-Dichloroethane-d4			110	70.0-130	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Method Blank (MB)

(MB) R3449124-2 09/09/19 13:18

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethanol	U		42.0	100
(S) Toluene-d8	111			80.0-120
(S) 4-Bromofluorobenzene	91.0			77.0-126
(S) 1,2-Dichloroethane-d4	105			70.0-130

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Laboratory Control Sample (LCS)

(LCS) R3449124-1 09/09/19 11:54

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethanol	1000	1040	104	10.0-160	
(S) Toluene-d8			104	80.0-120	
(S) 4-Bromofluorobenzene			87.9	77.0-126	
(S) 1,2-Dichloroethane-d4			109	70.0-130	



Method Blank (MB)

(MB) R3447007-1 09/03/19 21:33

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Ethylene Dibromide	U		0.00240	0.0100

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1134148-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1134148-11 09/03/19 22:22 • (DUP) R3447007-3 09/03/19 22:10

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Ethylene Dibromide	U	0.000	1.02	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3447007-4 09/04/19 00:23

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Ethylene Dibromide	0.250	0.245	98.0	60.0-140	

Laboratory Control Sample (LCS)

(LCS) R3447007-5 09/04/19 02:49

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Ethylene Dibromide	0.250	0.241	96.4	60.0-140	

L1134225-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1134225-03 09/03/19 21:58 • (MS) R3447007-2 09/03/19 21:45

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	ug/l	ug/l	ug/l	%		%	
Ethylene Dibromide	0.101	ND	0.106	105	1.01	64.0-159	



Method Blank (MB)

(MB) R3447008-1 09/04/19 03:13

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Ethylene Dibromide	U		0.00240	0.0100

L1134377-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1134377-03 09/04/19 04:01 • (DUP) R3447008-3 09/04/19 03:49

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Ethylene Dibromide	U	0.000	1.02	0.000		20

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

(LCS) R3447008-4 09/04/19 06:02 • (LCSD) R3447008-5 09/04/19 08:28

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	%	%	%			%	%
Ethylene Dibromide	0.250	0.246	0.240	98.4	96.0	60.0-140			2.47	20

L1134674-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1134674-07 09/04/19 03:37 • (MS) R3447008-2 09/04/19 03:25

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	ug/l	ug/l	ug/l	%		%	
Ethylene Dibromide	0.101	U	0.112	111	1.01	64.0-159	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3447170-1 09/04/19 05:22

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	88.0			52.0-156

Laboratory Control Sample (LCS)

(LCS) R3447170-2 09/04/19 05:42

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	1500	1490	99.3	50.0-150	
(S) o-Terphenyl			91.0	52.0-156	

L1134351-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1134351-11 09/04/19 11:04 • (MS) R3447170-3 09/04/19 11:24 • (MSD) R3447170-4 09/04/19 11:44

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	1500	ND	1620	1540	99.3	94.0	1	50.0-150			5.06	20
(S) o-Terphenyl					89.5	90.5		52.0-156				

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3446545-2 09/02/19 21:33

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzo(a)anthracene	U		0.00410	0.0500
Benzo(a)pyrene	U		0.0116	0.0500
Benzo(b)fluoranthene	U		0.00212	0.0500
Benzo(k)fluoranthene	U		0.0136	0.0500
Chrysene	U		0.0108	0.0500
Dibenz(a,h)anthracene	U		0.00396	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500
Naphthalene	0.0291	J	0.0198	0.250
1-Methylnaphthalene	U		0.00821	0.250
2-Methylnaphthalene	U		0.00902	0.250
(S) Nitrobenzene-d5	123			31.0-160
(S) 2-Fluorobiphenyl	99.0			48.0-148
(S) p-Terphenyl-d14	124			37.0-146

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

(LCS) R3446545-3 09/02/19 22:15 • (LCSD) R3446545-1 09/02/19 21:13

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 %
Benzo(a)anthracene	2.00	2.89	2.38	144	119	61.0-140	J4		19.4	20
Benzo(a)pyrene	2.00	2.77	2.56	138	128	60.0-143			7.88	20
Benzo(b)fluoranthene	2.00	2.68	2.44	134	122	58.0-141			9.37	20
Benzo(k)fluoranthene	2.00	2.63	2.49	132	124	58.0-148			5.47	20
Chrysene	2.00	2.71	2.49	135	124	64.0-144			8.46	20
Dibenz(a,h)anthracene	2.00	2.69	1.23	135	61.5	52.0-155		J3	74.5	20
Indeno(1,2,3-cd)pyrene	2.00	2.70	1.23	135	61.5	54.0-153		J3	74.8	20
Naphthalene	2.00	2.51	2.23	125	111	61.0-137			11.8	20
1-Methylnaphthalene	2.00	2.46	2.17	123	108	66.0-142			12.5	20
2-Methylnaphthalene	2.00	2.36	2.18	118	109	62.0-136			7.93	20
(S) Nitrobenzene-d5				131	120	31.0-160				
(S) 2-Fluorobiphenyl				122	139	48.0-148				
(S) p-Terphenyl-d14				117	74.5	37.0-146				

Sample Narrative:

LCS: QC bias high, reporting BDLs only for the impacted targets, data not impacted.



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.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, 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.
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.
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.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
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

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: The identification of the analyte is acceptable, but the reported concentration is an estimate. The calibration method criteria.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

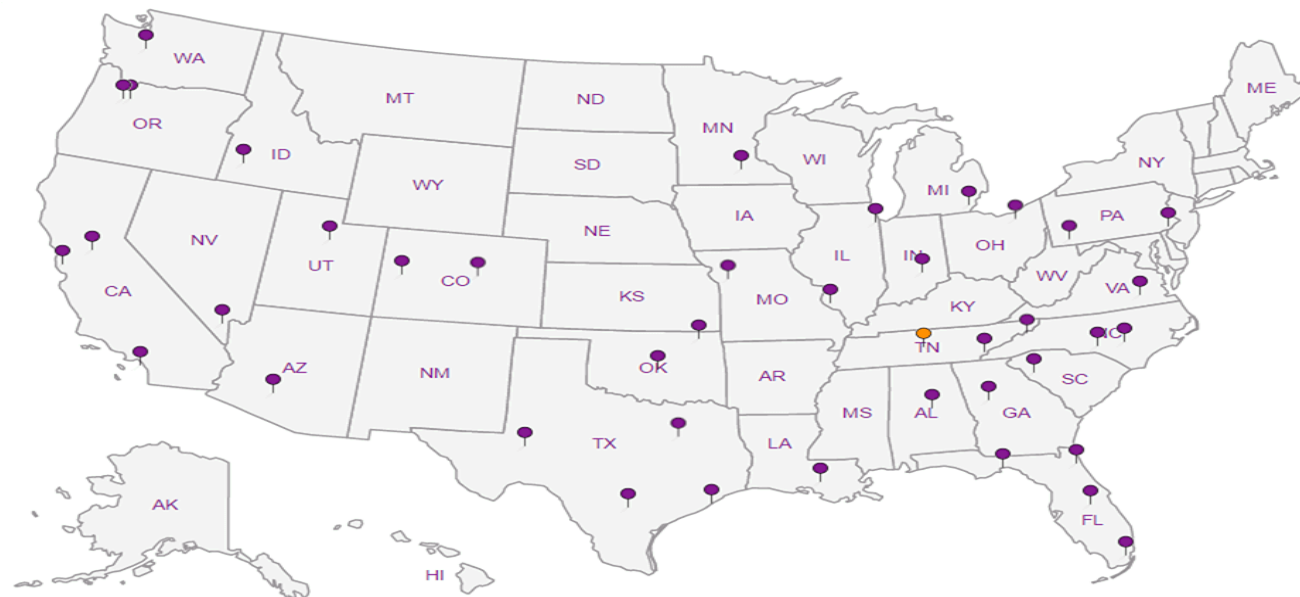
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

Alabama	40660	Nebraska	NE-05-15
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky ^{1 6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Pace National 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. Pace National performs all testing at our central laboratory.



ARCADIS US - Seattle, WA

1100 Olive Way
Suite 800
Seattle WA 98101

Report to:
Ross LaGrandeur

Project
Description: **WA-11060**

Phone: **509-438-9828**
Fax:

Collected by (print):
KILEY ZAUBI

Collected by (signature):

Immediately
Packed on Ice: N ☐ Y ☒

Client Project #
30014464

Site/Facility ID #
4580 FAUNTLEROY WAY SW,

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

Lab Project #
ARCABPWA-WA11060

P.O. #

Quote #

Date Results Needed

Please Circle:
PT MT CT ET

Billing Information:

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

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

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1



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



SDG # **1134377**

Tab **C207**

Acctnum: **ARCABPWA**

Template: **T154503**

Prelogin: **P724831**

PM: **110 - Brian Ford**

PB: **TB 8-9-19**

Shipped Via: **FedEX Ground**

Remarks Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEXM, EDC 8260C 40mIAmb-HCI	EDB (SV8011) 40mIClr-NaThio	HOLD - Diss Pb 6010 250mIHDPE-NoPres	NWTPHDX LVINOSGT 40mIAmb-HCI-BT	NWTPHGX 40mIAmb HCl	PAHs (PAHSIMLVLD) 40mIAmb-NoPres-WT	Total Pb 6010 250mIHDPE-HNO3 L2	VOC+OXYs 8260LLC 40mIAmb-HCI			
MW-9	G	GW		8/27/19	1306	15		X	X	X	X	X	X	X			-01
MW-11	G	GW		8/27/19	1445	15		X	X	X	X	X	X	X			02
MW-16	G	GW		8/27/19	1500	15	X	X	X	X	X	X	X				03
MW-12	G	GW		8/27/19	1600	15		X	X	X	X	X	X	X			04
Gmw-1	G	GW		8/27/19	1625	15		X	X	X	X	X	X	X			05
DUP-1	G	GW		8/27/19	—	15		X	X	X	X	X	X	X			06
		GW															
		GW															
		GW															
		GW															

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

Remarks:

STAT

RAD SCREEN: <0.5 mR/hr

pH Temp

Flow Other

Samples returned via:

___ UPS ___ FedEx ___ Courier

Tracking #

4510 1661 9988

Sample Receipt Checklist

COC Seal Present/Intact: NP ☒ N
COC Signed/Accurate: ☒ N
Bottles arrive intact: ☒ N
Correct bottles used: ☒ N
Sufficient volume sent: ☒ N

If Applicable

VOA Zero Headspace: ☒ N
Preservation Correct/Checked: ☒ N
RAD Screen <0.5 mR/hr: ☒ N

Relinquished by: (Signature)

Date:

8/28/19

Time:

1433

Received by: (Signature)

[Signature]

Trip Blank Received: Yes No

3 MeOH TBR

Relinquished by: (Signature)

Date:

8-28

Time:

1433

Received by: (Signature)

[Signature]

Temp: **APPC** Bottles Received:

0.5h2=07 90

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

8/29

Time:

0845

Received for lab by: (Signature)

[Signature]

Date:

8/29

Time:

0845

Hold:

Condition:

NCF / OK

ARCADIS US - Seattle, WA

Sample Delivery Group: L1165843
Samples Received: 11/29/2019
Project Number: 30014464 N0000
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

Brian Ford
Project Manager

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 Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-2 L1165843-01 GW

Collected by
Daniel Sly Gilbert

Collected date/time
11/26/19 10:10

Received date/time
11/29/19 09:40

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1389043	1	11/30/19 13:25	12/01/19 14:27	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1394762	1	12/12/19 08:24	12/12/19 14:38	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1392510	1	12/07/19 13:24	12/07/19 13:24	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1391981	1	12/06/19 10:07	12/06/19 10:07	BMB	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1389562	1	12/02/19 08:35	12/02/19 23:05	HMH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1389053	1	11/30/19 14:46	12/01/19 03:03	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1389814	1	12/03/19 08:31	12/03/19 17:06	DMM	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

MW-3 L1165843-02 GW

Collected by
Daniel Sly Gilbert

Collected date/time
11/25/19 14:40

Received date/time
11/29/19 09:40

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1389043	1	11/30/19 13:25	12/01/19 14:30	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1392510	1	12/07/19 13:47	12/07/19 13:47	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1391981	1	12/06/19 10:27	12/06/19 10:27	BMB	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1389562	1.02	12/02/19 08:35	12/02/19 20:07	HMH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1389053	1	11/30/19 14:46	12/01/19 03:28	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1389059	1	11/30/19 18:11	12/01/19 07:35	DMG	Mt. Juliet, TN

MW-9 L1165843-03 GW

Collected by
Daniel Sly Gilbert

Collected date/time
11/26/19 09:20

Received date/time
11/29/19 09:40

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1389043	1	11/30/19 13:25	12/01/19 14:38	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1392510	1	12/07/19 14:09	12/07/19 14:09	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1391568	1	12/05/19 19:38	12/05/19 19:38	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1392258	1	12/06/19 17:18	12/06/19 17:18	ACG	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1389562	1	12/02/19 08:35	12/02/19 23:16	HMH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1389053	1	11/30/19 14:46	12/01/19 03:54	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1389466	1	12/01/19 16:53	12/02/19 01:29	AAT	Mt. Juliet, TN

MW-11 L1165843-04 GW

Collected by
Daniel Sly Gilbert

Collected date/time
11/25/19 12:36

Received date/time
11/29/19 09:40

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1389043	1	11/30/19 13:25	12/01/19 14:41	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1392510	1	12/07/19 14:31	12/07/19 14:31	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1391568	1	12/05/19 19:59	12/05/19 19:59	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1392258	1	12/06/19 17:37	12/06/19 17:37	ACG	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1389562	1	12/02/19 08:35	12/02/19 19:45	HMH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1389053	1	11/30/19 14:46	12/01/19 04:20	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1389059	1	11/30/19 18:11	12/01/19 07:59	DMG	Mt. Juliet, TN

MW-12 L1165843-05 GW

Collected by
Daniel Sly Gilbert

Collected date/time
11/25/19 12:40

Received date/time
11/29/19 09:40

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1389043	1	11/30/19 13:25	12/01/19 14:43	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1394762	1	12/12/19 08:24	12/12/19 14:46	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1392510	1	12/07/19 14:54	12/07/19 14:54	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1391568	1	12/05/19 20:20	12/05/19 20:20	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1392258	1	12/06/19 17:57	12/06/19 17:57	ACG	Mt. Juliet, TN

ACCOUNT:

ARCADIS US - Seattle, WA

PROJECT:

30014464 NO000

SDG:

L1165843

DATE/TIME:

12/13/19 15:57

PAGE:

3 of 40



MW-12 L1165843-05 GW

Collected by
Daniel Sly Gilbert

Collected date/time
11/25/19 12:40

Received date/time
11/29/19 09:40

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
EDB / DBCP by Method 8011	WG1389562	1	12/02/19 08:35	12/02/19 23:27	HMH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1389232	1	11/30/19 17:58	12/01/19 13:28	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1389059	1	11/30/19 18:11	12/01/19 08:22	DMG	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

DUP-1 L1165843-06 GW

Collected by
Daniel Sly Gilbert

Collected date/time
11/25/19 00:00

Received date/time
11/29/19 09:40

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1389043	1	11/30/19 13:25	12/01/19 14:46	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1392510	1	12/07/19 15:16	12/07/19 15:16	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1391981	1	12/06/19 10:48	12/06/19 10:48	BMB	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1389562	1.01	12/02/19 08:35	12/02/19 23:38	HMH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1389232	1	11/30/19 17:58	12/01/19 13:49	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1389059	1	11/30/19 18:11	12/01/19 08:46	DMG	Mt. Juliet, TN

TRIP BLANK L1165843-07 GW

Collected by
Daniel Sly Gilbert

Collected date/time
11/25/19 00:00

Received date/time
11/29/19 09:40

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1391612	1	12/05/19 12:46	12/05/19 12:46	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1391568	1	12/05/19 14:09	12/05/19 14:09	BMB	Mt. Juliet, TN



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	79.2		1.90	5.00	1	12/01/2019 14:27	WG1389043
Lead,Dissolved	U		1.90	5.00	1	12/12/2019 14:38	WG1394762

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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	256	<u>B</u>	31.6	100	1	12/07/2019 13:24	WG1392510
(S) a,a,a-Trifluorotoluene(FID)	99.1			78.0-120		12/07/2019 13:24	WG1392510

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	0.883	<u>J</u>	0.331	1.00	1	12/06/2019 10:07	WG1391981
Toluene	U		0.412	1.00	1	12/06/2019 10:07	WG1391981
Ethylbenzene	U		0.384	1.00	1	12/06/2019 10:07	WG1391981
Total Xylenes	U		1.06	3.00	1	12/06/2019 10:07	WG1391981
Methyl tert-butyl ether	U		0.367	1.00	1	12/06/2019 10:07	WG1391981
1,2-Dichloroethane	U		0.361	1.00	1	12/06/2019 10:07	WG1391981
(S) Toluene-d8	109			80.0-120		12/06/2019 10:07	WG1391981
(S) 4-Bromofluorobenzene	105			77.0-126		12/06/2019 10:07	WG1391981
(S) 1,2-Dichloroethane-d4	93.3			70.0-130		12/06/2019 10:07	WG1391981

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00240	0.0100	1	12/02/2019 23:05	WG1389562

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)	414		66.7	200	1	12/01/2019 03:03	WG1389053
Residual Range Organics (RRO)	706		83.3	250	1	12/01/2019 03:03	WG1389053
(S) o-Terphenyl	75.5			52.0-156		12/01/2019 03:03	WG1389053

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	0.00684	<u>B J</u>	0.00410	0.0500	1	12/03/2019 17:06	WG1389814
Benzo(a)pyrene	U		0.0116	0.0500	1	12/03/2019 17:06	WG1389814
Benzo(b)fluoranthene	U		0.00212	0.0500	1	12/03/2019 17:06	WG1389814
Benzo(k)fluoranthene	U		0.0136	0.0500	1	12/03/2019 17:06	WG1389814
Chrysene	U		0.0108	0.0500	1	12/03/2019 17:06	WG1389814
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	12/03/2019 17:06	WG1389814
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	12/03/2019 17:06	WG1389814
Naphthalene	0.0680	<u>B J</u>	0.0198	0.250	1	12/03/2019 17:06	WG1389814
1-Methylnaphthalene	0.0255	<u>B J</u>	0.00821	0.250	1	12/03/2019 17:06	WG1389814
2-Methylnaphthalene	0.0174	<u>B J</u>	0.00902	0.250	1	12/03/2019 17:06	WG1389814
(S) Nitrobenzene-d5	111			31.0-160		12/03/2019 17:06	WG1389814
(S) 2-Fluorobiphenyl	109			48.0-148		12/03/2019 17:06	WG1389814
(S) p-Terphenyl-d14	112			37.0-146		12/03/2019 17:06	WG1389814



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	2.06	J	1.90	5.00	1	12/01/2019 14:30	WG1389043

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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	63.6	B J	31.6	100	1	12/07/2019 13:47	WG1392510
(S) a,a,a-Trifluorotoluene(FID)	102			78.0-120		12/07/2019 13:47	WG1392510

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	12/06/2019 10:27	WG1391981
Toluene	U		0.412	1.00	1	12/06/2019 10:27	WG1391981
Ethylbenzene	U		0.384	1.00	1	12/06/2019 10:27	WG1391981
Total Xylenes	U		1.06	3.00	1	12/06/2019 10:27	WG1391981
Methyl tert-butyl ether	U		0.367	1.00	1	12/06/2019 10:27	WG1391981
1,2-Dichloroethane	U		0.361	1.00	1	12/06/2019 10:27	WG1391981
(S) Toluene-d8	109			80.0-120		12/06/2019 10:27	WG1391981
(S) 4-Bromofluorobenzene	101			77.0-126		12/06/2019 10:27	WG1391981
(S) 1,2-Dichloroethane-d4	95.8			70.0-130		12/06/2019 10:27	WG1391981

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00245	0.0102	1.02	12/02/2019 20:07	WG1389562

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		66.7	200	1	12/01/2019 03:28	WG1389053
Residual Range Organics (RRO)	276		83.3	250	1	12/01/2019 03:28	WG1389053
(S) o-Terphenyl	79.5			52.0-156		12/01/2019 03:28	WG1389053

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	12/01/2019 07:35	WG1389059
Benzo(a)pyrene	U		0.0116	0.0500	1	12/01/2019 07:35	WG1389059
Benzo(b)fluoranthene	U		0.00212	0.0500	1	12/01/2019 07:35	WG1389059
Benzo(k)fluoranthene	U		0.0136	0.0500	1	12/01/2019 07:35	WG1389059
Chrysene	U		0.0108	0.0500	1	12/01/2019 07:35	WG1389059
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	12/01/2019 07:35	WG1389059
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	12/01/2019 07:35	WG1389059
Naphthalene	U		0.0198	0.250	1	12/01/2019 07:35	WG1389059
1-Methylnaphthalene	U		0.00821	0.250	1	12/01/2019 07:35	WG1389059
2-Methylnaphthalene	U		0.00902	0.250	1	12/01/2019 07:35	WG1389059
(S) Nitrobenzene-d5	89.0			31.0-160		12/01/2019 07:35	WG1389059
(S) 2-Fluorobiphenyl	110			48.0-148		12/01/2019 07:35	WG1389059
(S) p-Terphenyl-d14	116			37.0-146		12/01/2019 07:35	WG1389059



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	U		1.90	5.00	1	12/01/2019 14:38	WG1389043

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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	47.0	B J	31.6	100	1	12/07/2019 14:09	WG1392510
(S) a,a,a-Trifluorotoluene(FID)	102			78.0-120		12/07/2019 14:09	WG1392510

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	3.07	B J J0 J4	1.05	25.0	1	12/05/2019 19:38	WG1391568
Acrylonitrile	U		0.873	5.00	1	12/05/2019 19:38	WG1391568
Benzene	U		0.0896	0.500	1	12/05/2019 19:38	WG1391568
Bromobenzene	U		0.133	0.500	1	12/05/2019 19:38	WG1391568
Bromodichloromethane	U		0.0800	0.500	1	12/05/2019 19:38	WG1391568
Bromochloromethane	U		0.145	0.500	1	12/05/2019 19:38	WG1391568
Bromoform	U		0.186	0.500	1	12/05/2019 19:38	WG1391568
Bromomethane	U		0.157	2.50	1	12/05/2019 19:38	WG1391568
n-Butylbenzene	U		0.143	0.500	1	12/05/2019 19:38	WG1391568
sec-Butylbenzene	U		0.134	0.500	1	12/05/2019 19:38	WG1391568
tert-Butylbenzene	U		0.183	0.500	1	12/05/2019 19:38	WG1391568
Carbon disulfide	U		0.101	0.500	1	12/05/2019 19:38	WG1391568
Carbon tetrachloride	U		0.159	0.500	1	12/05/2019 19:38	WG1391568
Chlorobenzene	U		0.140	0.500	1	12/05/2019 19:38	WG1391568
Chlorodibromomethane	U		0.128	0.500	1	12/05/2019 19:38	WG1391568
Chloroethane	U		0.141	2.50	1	12/05/2019 19:38	WG1391568
Chloroform	U		0.0860	0.500	1	12/05/2019 19:38	WG1391568
Chloromethane	U		0.153	1.25	1	12/05/2019 19:38	WG1391568
2-Chlorotoluene	U		0.111	0.500	1	12/05/2019 19:38	WG1391568
4-Chlorotoluene	U		0.0972	0.500	1	12/05/2019 19:38	WG1391568
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	12/05/2019 19:38	WG1391568
1,2-Dibromoethane	U		0.193	0.500	1	12/05/2019 19:38	WG1391568
Dibromomethane	U		0.117	0.500	1	12/05/2019 19:38	WG1391568
1,2-Dichlorobenzene	U		0.101	0.500	1	12/05/2019 19:38	WG1391568
1,3-Dichlorobenzene	U		0.130	0.500	1	12/05/2019 19:38	WG1391568
1,4-Dichlorobenzene	U		0.121	0.500	1	12/05/2019 19:38	WG1391568
Dichlorodifluoromethane	U		0.127	2.50	1	12/05/2019 19:38	WG1391568
1,1-Dichloroethane	U		0.114	0.500	1	12/05/2019 19:38	WG1391568
1,2-Dichloroethane	U		0.108	0.500	1	12/05/2019 19:38	WG1391568
1,1-Dichloroethene	U		0.188	0.500	1	12/05/2019 19:38	WG1391568
cis-1,2-Dichloroethene	U		0.0933	0.500	1	12/05/2019 19:38	WG1391568
trans-1,2-Dichloroethene	U		0.152	0.500	1	12/05/2019 19:38	WG1391568
1,2-Dichloropropane	U		0.190	0.500	1	12/05/2019 19:38	WG1391568
1,1-Dichloropropene	U		0.128	0.500	1	12/05/2019 19:38	WG1391568
1,3-Dichloropropane	U		0.147	1.00	1	12/05/2019 19:38	WG1391568
cis-1,3-Dichloropropene	U		0.0976	0.500	1	12/05/2019 19:38	WG1391568
trans-1,3-Dichloropropene	U		0.222	0.500	1	12/05/2019 19:38	WG1391568
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	12/05/2019 19:38	WG1391568
2,2-Dichloropropane	U		0.0929	0.500	1	12/05/2019 19:38	WG1391568
Ethylbenzene	U		0.158	0.500	1	12/05/2019 19:38	WG1391568
Hexachloro-1,3-butadiene	U		0.157	1.00	1	12/05/2019 19:38	WG1391568
2-Hexanone	U		0.757	5.00	1	12/05/2019 19:38	WG1391568
n-Hexane	U		0.305	5.00	1	12/05/2019 19:38	WG1391568



Collected date/time: 11/26/19 09:20

L1165843

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Iodomethane	U		0.377	10.0	1	12/05/2019 19:38	WG1391568
Isopropylbenzene	U		0.126	0.500	1	12/05/2019 19:38	WG1391568
p-Isopropyltoluene	U		0.138	0.500	1	12/05/2019 19:38	WG1391568
2-Butanone (MEK)	U		1.28	5.00	1	12/05/2019 19:38	WG1391568
Methylene Chloride	U		1.07	2.50	1	12/05/2019 19:38	WG1391568
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	12/05/2019 19:38	WG1391568
Naphthalene	U		0.174	2.50	1	12/05/2019 19:38	WG1391568
n-Propylbenzene	U		0.162	0.500	1	12/05/2019 19:38	WG1391568
Styrene	U		0.117	0.500	1	12/05/2019 19:38	WG1391568
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	12/05/2019 19:38	WG1391568
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	12/05/2019 19:38	WG1391568
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	12/05/2019 19:38	WG1391568
Tetrachloroethene	U		0.199	0.500	1	12/05/2019 19:38	WG1391568
Toluene	U		0.412	0.500	1	12/05/2019 19:38	WG1391568
1,2,3-Trichlorobenzene	U		0.164	0.500	1	12/05/2019 19:38	WG1391568
1,2,4-Trichlorobenzene	U		0.355	0.500	1	12/05/2019 19:38	WG1391568
1,1,1-Trichloroethane	U		0.0940	0.500	1	12/05/2019 19:38	WG1391568
1,1,2-Trichloroethane	U		0.186	0.500	1	12/05/2019 19:38	WG1391568
Trichloroethene	U		0.153	0.500	1	12/05/2019 19:38	WG1391568
Trichlorofluoromethane	U		0.130	2.50	1	12/05/2019 19:38	WG1391568
1,2,3-Trichloropropane	U		0.247	2.50	1	12/05/2019 19:38	WG1391568
1,2,4-Trimethylbenzene	U		0.123	0.500	1	12/05/2019 19:38	WG1391568
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	12/05/2019 19:38	WG1391568
1,3,5-Trimethylbenzene	U		0.124	0.500	1	12/05/2019 19:38	WG1391568
Vinyl acetate	U		0.645	5.00	1	12/05/2019 19:38	WG1391568
Vinyl chloride	U		0.118	0.500	1	12/05/2019 19:38	WG1391568
Xylenes, Total	U		0.316	1.50	1	12/05/2019 19:38	WG1391568
Di-isopropyl ether	U		0.0924	0.500	1	12/05/2019 19:38	WG1391568
Ethanol	54.0	J J4	42.0	100	1	12/05/2019 19:38	WG1391568
Ethyl tert-butyl ether	U		0.270	1.00	1	12/05/2019 19:38	WG1391568
Methyl tert-butyl ether	U		0.102	0.500	1	12/05/2019 19:38	WG1391568
tert-Butyl alcohol	U		2.40	5.00	1	12/06/2019 17:18	WG1392258
tert-Amyl Methyl Ether	U		0.260	1.00	1	12/05/2019 19:38	WG1391568
(S) Toluene-d8	100			80.0-120		12/05/2019 19:38	WG1391568
(S) Toluene-d8	102			80.0-120		12/06/2019 17:18	WG1392258
(S) 4-Bromofluorobenzene	97.8			77.0-126		12/05/2019 19:38	WG1391568
(S) 4-Bromofluorobenzene	100			77.0-126		12/06/2019 17:18	WG1392258
(S) 1,2-Dichloroethane-d4	106			70.0-130		12/05/2019 19:38	WG1391568
(S) 1,2-Dichloroethane-d4	96.7			70.0-130		12/06/2019 17:18	WG1392258

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

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00240	0.0100	1	12/02/2019 23:16	WG1389562

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)	108	J	66.7	200	1	12/01/2019 03:54	WG1389053
Residual Range Organics (RRO)	227	J	83.3	250	1	12/01/2019 03:54	WG1389053
(S) o-Terphenyl	81.5			52.0-156		12/01/2019 03:54	WG1389053



Collected date/time: 11/26/19 09:20

L1165843

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	12/02/2019 01:29	WG1389466
Benzo(a)pyrene	U		0.0116	0.0500	1	12/02/2019 01:29	WG1389466
Benzo(b)fluoranthene	0.00279	<u>B</u> <u>J</u>	0.00212	0.0500	1	12/02/2019 01:29	WG1389466
Benzo(k)fluoranthene	U		0.0136	0.0500	1	12/02/2019 01:29	WG1389466
Chrysene	U		0.0108	0.0500	1	12/02/2019 01:29	WG1389466
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	12/02/2019 01:29	WG1389466
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	12/02/2019 01:29	WG1389466
Naphthalene	0.130	<u>B</u> <u>J</u>	0.0198	0.250	1	12/02/2019 01:29	WG1389466
1-Methylnaphthalene	0.111	<u>J</u>	0.00821	0.250	1	12/02/2019 01:29	WG1389466
2-Methylnaphthalene	0.197	<u>J</u>	0.00902	0.250	1	12/02/2019 01:29	WG1389466
(S) Nitrobenzene-d5	86.5			31.0-160		12/02/2019 01:29	WG1389466
(S) 2-Fluorobiphenyl	88.5			48.0-148		12/02/2019 01:29	WG1389466
(S) p-Terphenyl-d14	106			37.0-146		12/02/2019 01:29	WG1389466

1
Cp2
Tc3
Ss4
Cn5
Sr6
Qc7
Gl8
Al9
Sc



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	U		1.90	5.00	1	12/01/2019 14:41	WG1389043

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr

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	137	<u>B</u>	31.6	100	1	12/07/2019 14:31	WG1392510
(S) a,a,a-Trifluorotoluene(FID)	103			78.0-120		12/07/2019 14:31	WG1392510

⁶ Qc⁷ Gl⁸ Al⁹ Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	3.40	<u>B J J0 J4</u>	1.05	25.0	1	12/05/2019 19:59	WG1391568
Acrylonitrile	U		0.873	5.00	1	12/05/2019 19:59	WG1391568
Benzene	U		0.0896	0.500	1	12/05/2019 19:59	WG1391568
Bromobenzene	U		0.133	0.500	1	12/05/2019 19:59	WG1391568
Bromodichloromethane	U		0.0800	0.500	1	12/05/2019 19:59	WG1391568
Bromochloromethane	U		0.145	0.500	1	12/05/2019 19:59	WG1391568
Bromoform	U		0.186	0.500	1	12/05/2019 19:59	WG1391568
Bromomethane	U		0.157	2.50	1	12/05/2019 19:59	WG1391568
n-Butylbenzene	U		0.143	0.500	1	12/05/2019 19:59	WG1391568
sec-Butylbenzene	0.822		0.134	0.500	1	12/05/2019 19:59	WG1391568
tert-Butylbenzene	U		0.183	0.500	1	12/05/2019 19:59	WG1391568
Carbon disulfide	U		0.101	0.500	1	12/05/2019 19:59	WG1391568
Carbon tetrachloride	U		0.159	0.500	1	12/05/2019 19:59	WG1391568
Chlorobenzene	U		0.140	0.500	1	12/05/2019 19:59	WG1391568
Chlorodibromomethane	U		0.128	0.500	1	12/05/2019 19:59	WG1391568
Chloroethane	U		0.141	2.50	1	12/05/2019 19:59	WG1391568
Chloroform	U		0.0860	0.500	1	12/05/2019 19:59	WG1391568
Chloromethane	U		0.153	1.25	1	12/05/2019 19:59	WG1391568
2-Chlorotoluene	U		0.111	0.500	1	12/05/2019 19:59	WG1391568
4-Chlorotoluene	U		0.0972	0.500	1	12/05/2019 19:59	WG1391568
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	12/05/2019 19:59	WG1391568
1,2-Dibromoethane	U		0.193	0.500	1	12/05/2019 19:59	WG1391568
Dibromomethane	U		0.117	0.500	1	12/05/2019 19:59	WG1391568
1,2-Dichlorobenzene	0.133	<u>J</u>	0.101	0.500	1	12/05/2019 19:59	WG1391568
1,3-Dichlorobenzene	U		0.130	0.500	1	12/05/2019 19:59	WG1391568
1,4-Dichlorobenzene	U		0.121	0.500	1	12/05/2019 19:59	WG1391568
Dichlorodifluoromethane	U		0.127	2.50	1	12/05/2019 19:59	WG1391568
1,1-Dichloroethane	U		0.114	0.500	1	12/05/2019 19:59	WG1391568
1,2-Dichloroethane	U		0.108	0.500	1	12/05/2019 19:59	WG1391568
1,1-Dichloroethene	U		0.188	0.500	1	12/05/2019 19:59	WG1391568
cis-1,2-Dichloroethene	U		0.0933	0.500	1	12/05/2019 19:59	WG1391568
trans-1,2-Dichloroethene	U		0.152	0.500	1	12/05/2019 19:59	WG1391568
1,2-Dichloropropane	U		0.190	0.500	1	12/05/2019 19:59	WG1391568
1,1-Dichloropropene	U		0.128	0.500	1	12/05/2019 19:59	WG1391568
1,3-Dichloropropane	U		0.147	1.00	1	12/05/2019 19:59	WG1391568
cis-1,3-Dichloropropene	U		0.0976	0.500	1	12/05/2019 19:59	WG1391568
trans-1,3-Dichloropropene	U		0.222	0.500	1	12/05/2019 19:59	WG1391568
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	12/05/2019 19:59	WG1391568
2,2-Dichloropropane	U		0.0929	0.500	1	12/05/2019 19:59	WG1391568
Ethylbenzene	U		0.158	0.500	1	12/05/2019 19:59	WG1391568
Hexachloro-1,3-butadiene	U		0.157	1.00	1	12/05/2019 19:59	WG1391568
2-Hexanone	U		0.757	5.00	1	12/05/2019 19:59	WG1391568
n-Hexane	U		0.305	5.00	1	12/05/2019 19:59	WG1391568



Collected date/time: 11/25/19 12:36

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Iodomethane	U		0.377	10.0	1	12/05/2019 19:59	WG1391568
Isopropylbenzene	U		0.126	0.500	1	12/05/2019 19:59	WG1391568
p-Isopropyltoluene	U		0.138	0.500	1	12/05/2019 19:59	WG1391568
2-Butanone (MEK)	U		1.28	5.00	1	12/05/2019 19:59	WG1391568
Methylene Chloride	U		1.07	2.50	1	12/05/2019 19:59	WG1391568
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	12/05/2019 19:59	WG1391568
Naphthalene	U		0.174	2.50	1	12/05/2019 19:59	WG1391568
n-Propylbenzene	U		0.162	0.500	1	12/05/2019 19:59	WG1391568
Styrene	U		0.117	0.500	1	12/05/2019 19:59	WG1391568
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	12/05/2019 19:59	WG1391568
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	12/05/2019 19:59	WG1391568
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	12/05/2019 19:59	WG1391568
Tetrachloroethene	U		0.199	0.500	1	12/05/2019 19:59	WG1391568
Toluene	U		0.412	0.500	1	12/05/2019 19:59	WG1391568
1,2,3-Trichlorobenzene	U		0.164	0.500	1	12/05/2019 19:59	WG1391568
1,2,4-Trichlorobenzene	U		0.355	0.500	1	12/05/2019 19:59	WG1391568
1,1,1-Trichloroethane	U		0.0940	0.500	1	12/05/2019 19:59	WG1391568
1,1,2-Trichloroethane	U		0.186	0.500	1	12/05/2019 19:59	WG1391568
Trichloroethene	U		0.153	0.500	1	12/05/2019 19:59	WG1391568
Trichlorofluoromethane	U		0.130	2.50	1	12/05/2019 19:59	WG1391568
1,2,3-Trichloropropane	U		0.247	2.50	1	12/05/2019 19:59	WG1391568
1,2,4-Trimethylbenzene	U		0.123	0.500	1	12/05/2019 19:59	WG1391568
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	12/05/2019 19:59	WG1391568
1,3,5-Trimethylbenzene	U		0.124	0.500	1	12/05/2019 19:59	WG1391568
Vinyl acetate	U		0.645	5.00	1	12/05/2019 19:59	WG1391568
Vinyl chloride	U		0.118	0.500	1	12/05/2019 19:59	WG1391568
Xylenes, Total	U		0.316	1.50	1	12/05/2019 19:59	WG1391568
Di-isopropyl ether	U		0.0924	0.500	1	12/05/2019 19:59	WG1391568
Ethanol	U	J4	42.0	100	1	12/05/2019 19:59	WG1391568
Ethyl tert-butyl ether	U		0.270	1.00	1	12/05/2019 19:59	WG1391568
Methyl tert-butyl ether	0.771		0.102	0.500	1	12/05/2019 19:59	WG1391568
tert-Butyl alcohol	5.98		2.40	5.00	1	12/06/2019 17:37	WG1392258
tert-Amyl Methyl Ether	U		0.260	1.00	1	12/05/2019 19:59	WG1391568
(S) Toluene-d8	94.8			80.0-120		12/05/2019 19:59	WG1391568
(S) Toluene-d8	103			80.0-120		12/06/2019 17:37	WG1392258
(S) 4-Bromofluorobenzene	95.1			77.0-126		12/05/2019 19:59	WG1391568
(S) 4-Bromofluorobenzene	102			77.0-126		12/06/2019 17:37	WG1392258
(S) 1,2-Dichloroethane-d4	105			70.0-130		12/05/2019 19:59	WG1391568
(S) 1,2-Dichloroethane-d4	97.4			70.0-130		12/06/2019 17:37	WG1392258

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

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00240	0.0100	1	12/02/2019 19:45	WG1389562

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)	220		66.7	200	1	12/01/2019 04:20	WG1389053
Residual Range Organics (RRO)	408		83.3	250	1	12/01/2019 04:20	WG1389053
(S) o-Terphenyl	81.5			52.0-156		12/01/2019 04:20	WG1389053



Collected date/time: 11/25/19 12:36

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Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	12/01/2019 07:59	WG1389059
Benzo(a)pyrene	U		0.0116	0.0500	1	12/01/2019 07:59	WG1389059
Benzo(b)fluoranthene	U		0.00212	0.0500	1	12/01/2019 07:59	WG1389059
Benzo(k)fluoranthene	U		0.0136	0.0500	1	12/01/2019 07:59	WG1389059
Chrysene	U		0.0108	0.0500	1	12/01/2019 07:59	WG1389059
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	12/01/2019 07:59	WG1389059
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	12/01/2019 07:59	WG1389059
Naphthalene	0.141	U	0.0198	0.250	1	12/01/2019 07:59	WG1389059
1-Methylnaphthalene	U		0.00821	0.250	1	12/01/2019 07:59	WG1389059
2-Methylnaphthalene	0.0104	U	0.00902	0.250	1	12/01/2019 07:59	WG1389059
(S) Nitrobenzene-d5	93.5			31.0-160		12/01/2019 07:59	WG1389059
(S) 2-Fluorobiphenyl	109			48.0-148		12/01/2019 07:59	WG1389059
(S) p-Terphenyl-d14	124			37.0-146		12/01/2019 07:59	WG1389059

1
Cp2
Tc3
Ss4
Cn5
Sr6
Qc7
Gl8
Al9
Sc



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	25.8		1.90	5.00	1	12/01/2019 14:43	WG1389043
Lead,Dissolved	U		1.90	5.00	1	12/12/2019 14:46	WG1394762

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	855		31.6	100	1	12/07/2019 14:54	WG1392510
(S) a,a,a-Trifluorotoluene(FID)	99.6			78.0-120		12/07/2019 14:54	WG1392510

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	1.05	25.0	1	12/05/2019 20:20	WG1391568
Acrylonitrile	U		0.873	5.00	1	12/05/2019 20:20	WG1391568
Benzene	2.79		0.0896	0.500	1	12/05/2019 20:20	WG1391568
Bromobenzene	U		0.133	0.500	1	12/05/2019 20:20	WG1391568
Bromodichloromethane	U		0.0800	0.500	1	12/05/2019 20:20	WG1391568
Bromochloromethane	U		0.145	0.500	1	12/05/2019 20:20	WG1391568
Bromoform	U		0.186	0.500	1	12/05/2019 20:20	WG1391568
Bromomethane	U		0.157	2.50	1	12/05/2019 20:20	WG1391568
n-Butylbenzene	0.307	J	0.143	0.500	1	12/05/2019 20:20	WG1391568
sec-Butylbenzene	1.45		0.134	0.500	1	12/05/2019 20:20	WG1391568
tert-Butylbenzene	0.196	J	0.183	0.500	1	12/05/2019 20:20	WG1391568
Carbon disulfide	0.173	J	0.101	0.500	1	12/05/2019 20:20	WG1391568
Carbon tetrachloride	U		0.159	0.500	1	12/05/2019 20:20	WG1391568
Chlorobenzene	U		0.140	0.500	1	12/05/2019 20:20	WG1391568
Chlorodibromomethane	U		0.128	0.500	1	12/05/2019 20:20	WG1391568
Chloroethane	U		0.141	2.50	1	12/05/2019 20:20	WG1391568
Chloroform	U		0.0860	0.500	1	12/05/2019 20:20	WG1391568
Chloromethane	U		0.153	1.25	1	12/05/2019 20:20	WG1391568
2-Chlorotoluene	U		0.111	0.500	1	12/05/2019 20:20	WG1391568
4-Chlorotoluene	U		0.0972	0.500	1	12/05/2019 20:20	WG1391568
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	12/05/2019 20:20	WG1391568
1,2-Dibromoethane	U		0.193	0.500	1	12/05/2019 20:20	WG1391568
Dibromomethane	U		0.117	0.500	1	12/05/2019 20:20	WG1391568
1,2-Dichlorobenzene	U		0.101	0.500	1	12/05/2019 20:20	WG1391568
1,3-Dichlorobenzene	U		0.130	0.500	1	12/05/2019 20:20	WG1391568
1,4-Dichlorobenzene	U		0.121	0.500	1	12/05/2019 20:20	WG1391568
Dichlorodifluoromethane	U		0.127	2.50	1	12/05/2019 20:20	WG1391568
1,1-Dichloroethane	U		0.114	0.500	1	12/05/2019 20:20	WG1391568
1,2-Dichloroethane	U		0.108	0.500	1	12/05/2019 20:20	WG1391568
1,1-Dichloroethene	U		0.188	0.500	1	12/05/2019 20:20	WG1391568
cis-1,2-Dichloroethene	U		0.0933	0.500	1	12/05/2019 20:20	WG1391568
trans-1,2-Dichloroethene	U		0.152	0.500	1	12/05/2019 20:20	WG1391568
1,2-Dichloropropane	U		0.190	0.500	1	12/05/2019 20:20	WG1391568
1,1-Dichloropropene	U		0.128	0.500	1	12/05/2019 20:20	WG1391568
1,3-Dichloropropane	U		0.147	1.00	1	12/05/2019 20:20	WG1391568
cis-1,3-Dichloropropene	U		0.0976	0.500	1	12/05/2019 20:20	WG1391568
trans-1,3-Dichloropropene	U		0.222	0.500	1	12/05/2019 20:20	WG1391568
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	12/05/2019 20:20	WG1391568
2,2-Dichloropropane	U		0.0929	0.500	1	12/05/2019 20:20	WG1391568
Ethylbenzene	1.06		0.158	0.500	1	12/05/2019 20:20	WG1391568
Hexachloro-1,3-butadiene	U		0.157	1.00	1	12/05/2019 20:20	WG1391568
2-Hexanone	U		0.757	5.00	1	12/05/2019 20:20	WG1391568





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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
n-Hexane	1.82	U	0.305	5.00	1	12/05/2019 20:20	WG1391568
Iodomethane	U		0.377	10.0	1	12/05/2019 20:20	WG1391568
Isopropylbenzene	4.19		0.126	0.500	1	12/05/2019 20:20	WG1391568
p-Isopropyltoluene	0.836		0.138	0.500	1	12/05/2019 20:20	WG1391568
2-Butanone (MEK)	U		1.28	5.00	1	12/05/2019 20:20	WG1391568
Methylene Chloride	U		1.07	2.50	1	12/05/2019 20:20	WG1391568
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	12/05/2019 20:20	WG1391568
Naphthalene	0.371	U	0.174	2.50	1	12/05/2019 20:20	WG1391568
n-Propylbenzene	1.79		0.162	0.500	1	12/05/2019 20:20	WG1391568
Styrene	U		0.117	0.500	1	12/05/2019 20:20	WG1391568
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	12/05/2019 20:20	WG1391568
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	12/05/2019 20:20	WG1391568
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	12/05/2019 20:20	WG1391568
Tetrachloroethene	U		0.199	0.500	1	12/05/2019 20:20	WG1391568
Toluene	U		0.412	0.500	1	12/05/2019 20:20	WG1391568
1,2,3-Trichlorobenzene	U		0.164	0.500	1	12/05/2019 20:20	WG1391568
1,2,4-Trichlorobenzene	U		0.355	0.500	1	12/05/2019 20:20	WG1391568
1,1,1-Trichloroethane	U		0.0940	0.500	1	12/05/2019 20:20	WG1391568
1,1,2-Trichloroethane	3.39		0.186	0.500	1	12/05/2019 20:20	WG1391568
Trichloroethene	U		0.153	0.500	1	12/05/2019 20:20	WG1391568
Trichlorofluoromethane	U		0.130	2.50	1	12/05/2019 20:20	WG1391568
1,2,3-Trichloropropane	U		0.247	2.50	1	12/05/2019 20:20	WG1391568
1,2,4-Trimethylbenzene	1.22		0.123	0.500	1	12/05/2019 20:20	WG1391568
1,2,3-Trimethylbenzene	0.359	U	0.0739	0.500	1	12/05/2019 20:20	WG1391568
1,3,5-Trimethylbenzene	0.935		0.124	0.500	1	12/05/2019 20:20	WG1391568
Vinyl acetate	U		0.645	5.00	1	12/05/2019 20:20	WG1391568
Vinyl chloride	U		0.118	0.500	1	12/05/2019 20:20	WG1391568
Xylenes, Total	0.464	U	0.316	1.50	1	12/05/2019 20:20	WG1391568
Di-isopropyl ether	U		0.0924	0.500	1	12/05/2019 20:20	WG1391568
Ethanol	U	J4	42.0	100	1	12/05/2019 20:20	WG1391568
Ethyl tert-butyl ether	U		0.270	1.00	1	12/05/2019 20:20	WG1391568
Methyl tert-butyl ether	U		0.102	0.500	1	12/05/2019 20:20	WG1391568
tert-Butyl alcohol	3.32	U	2.40	5.00	1	12/06/2019 17:57	WG1392258
tert-Amyl Methyl Ether	U		0.260	1.00	1	12/05/2019 20:20	WG1391568
(S) Toluene-d8	93.0			80.0-120		12/05/2019 20:20	WG1391568
(S) Toluene-d8	107			80.0-120		12/06/2019 17:57	WG1392258
(S) 4-Bromofluorobenzene	96.1			77.0-126		12/05/2019 20:20	WG1391568
(S) 4-Bromofluorobenzene	103			77.0-126		12/06/2019 17:57	WG1392258
(S) 1,2-Dichloroethane-d4	106			70.0-130		12/05/2019 20:20	WG1391568
(S) 1,2-Dichloroethane-d4	99.1			70.0-130		12/06/2019 17:57	WG1392258

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

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00240	0.0100	1	12/02/2019 23:27	WG1389562

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)	349		66.7	200	1	12/01/2019 13:28	WG1389232
Residual Range Organics (RRO)	183	U	83.3	250	1	12/01/2019 13:28	WG1389232
(S) o-Terphenyl	101			52.0-156		12/01/2019 13:28	WG1389232



Collected date/time: 11/25/19 12:40

L1165843

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	12/01/2019 08:22	WG1389059
Benzo(a)pyrene	U		0.0116	0.0500	1	12/01/2019 08:22	WG1389059
Benzo(b)fluoranthene	U		0.00212	0.0500	1	12/01/2019 08:22	WG1389059
Benzo(k)fluoranthene	U		0.0136	0.0500	1	12/01/2019 08:22	WG1389059
Chrysene	U		0.0108	0.0500	1	12/01/2019 08:22	WG1389059
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	12/01/2019 08:22	WG1389059
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	12/01/2019 08:22	WG1389059
Naphthalene	0.659		0.0198	0.250	1	12/01/2019 08:22	WG1389059
1-Methylnaphthalene	0.244	U	0.00821	0.250	1	12/01/2019 08:22	WG1389059
2-Methylnaphthalene	0.0269	U	0.00902	0.250	1	12/01/2019 08:22	WG1389059
(S) Nitrobenzene-d5	95.5			31.0-160		12/01/2019 08:22	WG1389059
(S) 2-Fluorobiphenyl	111			48.0-148		12/01/2019 08:22	WG1389059
(S) p-Terphenyl-d14	127			37.0-146		12/01/2019 08:22	WG1389059

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	U		1.90	5.00	1	12/01/2019 14:46	WG1389043

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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	47.9	<u>B</u>	31.6	100	1	12/07/2019 15:16	WG1392510
(S) a,a,a-Trifluorotoluene(FID)	103			78.0-120		12/07/2019 15:16	WG1392510

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	12/06/2019 10:48	WG1391981
Toluene	U		0.412	1.00	1	12/06/2019 10:48	WG1391981
Ethylbenzene	U		0.384	1.00	1	12/06/2019 10:48	WG1391981
Total Xylenes	U		1.06	3.00	1	12/06/2019 10:48	WG1391981
Methyl tert-butyl ether	U		0.367	1.00	1	12/06/2019 10:48	WG1391981
1,2-Dichloroethane	U		0.361	1.00	1	12/06/2019 10:48	WG1391981
(S) Toluene-d8	111			80.0-120		12/06/2019 10:48	WG1391981
(S) 4-Bromofluorobenzene	99.4			77.0-126		12/06/2019 10:48	WG1391981
(S) 1,2-Dichloroethane-d4	93.5			70.0-130		12/06/2019 10:48	WG1391981

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00242	0.0101	1.01	12/02/2019 23:38	WG1389562

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)	66.9	<u>J</u>	66.7	200	1	12/01/2019 13:49	WG1389232
Residual Range Organics (RRO)	98.7	<u>J</u>	83.3	250	1	12/01/2019 13:49	WG1389232
(S) o-Terphenyl	88.5			52.0-156		12/01/2019 13:49	WG1389232

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	12/01/2019 08:46	WG1389059
Benzo(a)pyrene	U		0.0116	0.0500	1	12/01/2019 08:46	WG1389059
Benzo(b)fluoranthene	U		0.00212	0.0500	1	12/01/2019 08:46	WG1389059
Benzo(k)fluoranthene	U		0.0136	0.0500	1	12/01/2019 08:46	WG1389059
Chrysene	U		0.0108	0.0500	1	12/01/2019 08:46	WG1389059
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	12/01/2019 08:46	WG1389059
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	12/01/2019 08:46	WG1389059
Naphthalene	U		0.0198	0.250	1	12/01/2019 08:46	WG1389059
1-Methylnaphthalene	U		0.00821	0.250	1	12/01/2019 08:46	WG1389059
2-Methylnaphthalene	U		0.00902	0.250	1	12/01/2019 08:46	WG1389059
(S) Nitrobenzene-d5	88.5			31.0-160		12/01/2019 08:46	WG1389059
(S) 2-Fluorobiphenyl	110			48.0-148		12/01/2019 08:46	WG1389059
(S) p-Terphenyl-d14	116			37.0-146		12/01/2019 08:46	WG1389059



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	35.2	<u>B_J</u>	31.6	100	1	12/05/2019 12:46	WG1391612
(S) a,a,a-Trifluorotoluene(FID)	95.4			78.0-120		12/05/2019 12:46	WG1391612

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U	<u>J4</u>	1.05	25.0	1	12/05/2019 14:09	WG1391568
Acrylonitrile	U		0.873	5.00	1	12/05/2019 14:09	WG1391568
Benzene	U		0.0896	0.500	1	12/05/2019 14:09	WG1391568
Bromobenzene	U		0.133	0.500	1	12/05/2019 14:09	WG1391568
Bromodichloromethane	U		0.0800	0.500	1	12/05/2019 14:09	WG1391568
Bromochloromethane	U		0.145	0.500	1	12/05/2019 14:09	WG1391568
Bromoform	U		0.186	0.500	1	12/05/2019 14:09	WG1391568
Bromomethane	U		0.157	2.50	1	12/05/2019 14:09	WG1391568
n-Butylbenzene	U		0.143	0.500	1	12/05/2019 14:09	WG1391568
sec-Butylbenzene	U		0.134	0.500	1	12/05/2019 14:09	WG1391568
tert-Butylbenzene	U		0.183	0.500	1	12/05/2019 14:09	WG1391568
Carbon disulfide	U		0.101	0.500	1	12/05/2019 14:09	WG1391568
Carbon tetrachloride	U		0.159	0.500	1	12/05/2019 14:09	WG1391568
Chlorobenzene	U		0.140	0.500	1	12/05/2019 14:09	WG1391568
Chlorodibromomethane	U		0.128	0.500	1	12/05/2019 14:09	WG1391568
Chloroethane	U		0.141	2.50	1	12/05/2019 14:09	WG1391568
Chloroform	U		0.0860	0.500	1	12/05/2019 14:09	WG1391568
Chloromethane	U		0.153	1.25	1	12/05/2019 14:09	WG1391568
2-Chlorotoluene	U		0.111	0.500	1	12/05/2019 14:09	WG1391568
4-Chlorotoluene	U		0.0972	0.500	1	12/05/2019 14:09	WG1391568
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	12/05/2019 14:09	WG1391568
1,2-Dibromoethane	U		0.193	0.500	1	12/05/2019 14:09	WG1391568
Dibromomethane	U		0.117	0.500	1	12/05/2019 14:09	WG1391568
1,2-Dichlorobenzene	U		0.101	0.500	1	12/05/2019 14:09	WG1391568
1,3-Dichlorobenzene	U		0.130	0.500	1	12/05/2019 14:09	WG1391568
1,4-Dichlorobenzene	U		0.121	0.500	1	12/05/2019 14:09	WG1391568
Dichlorodifluoromethane	U		0.127	2.50	1	12/05/2019 14:09	WG1391568
1,1-Dichloroethane	U		0.114	0.500	1	12/05/2019 14:09	WG1391568
1,2-Dichloroethane	U		0.108	0.500	1	12/05/2019 14:09	WG1391568
1,1-Dichloroethene	U		0.188	0.500	1	12/05/2019 14:09	WG1391568
cis-1,2-Dichloroethene	U		0.0933	0.500	1	12/05/2019 14:09	WG1391568
trans-1,2-Dichloroethene	U		0.152	0.500	1	12/05/2019 14:09	WG1391568
1,2-Dichloropropane	U		0.190	0.500	1	12/05/2019 14:09	WG1391568
1,1-Dichloropropene	U		0.128	0.500	1	12/05/2019 14:09	WG1391568
1,3-Dichloropropane	U		0.147	1.00	1	12/05/2019 14:09	WG1391568
cis-1,3-Dichloropropene	U		0.0976	0.500	1	12/05/2019 14:09	WG1391568
trans-1,3-Dichloropropene	U		0.222	0.500	1	12/05/2019 14:09	WG1391568
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	12/05/2019 14:09	WG1391568
2,2-Dichloropropane	U		0.0929	0.500	1	12/05/2019 14:09	WG1391568
Ethylbenzene	U		0.158	0.500	1	12/05/2019 14:09	WG1391568
Hexachloro-1,3-butadiene	U		0.157	1.00	1	12/05/2019 14:09	WG1391568
2-Hexanone	U		0.757	5.00	1	12/05/2019 14:09	WG1391568
n-Hexane	U		0.305	5.00	1	12/05/2019 14:09	WG1391568
Iodomethane	U		0.377	10.0	1	12/05/2019 14:09	WG1391568
Isopropylbenzene	U		0.126	0.500	1	12/05/2019 14:09	WG1391568
p-Isopropyltoluene	U		0.138	0.500	1	12/05/2019 14:09	WG1391568
2-Butanone (MEK)	U		1.28	5.00	1	12/05/2019 14:09	WG1391568
Methylene Chloride	U		1.07	2.50	1	12/05/2019 14:09	WG1391568

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Collected date/time: 11/25/19 00:00

L1165843

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	12/05/2019 14:09	WG1391568
Naphthalene	U		0.174	2.50	1	12/05/2019 14:09	WG1391568
n-Propylbenzene	U		0.162	0.500	1	12/05/2019 14:09	WG1391568
Styrene	U		0.117	0.500	1	12/05/2019 14:09	WG1391568
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	12/05/2019 14:09	WG1391568
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	12/05/2019 14:09	WG1391568
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	12/05/2019 14:09	WG1391568
Tetrachloroethene	U		0.199	0.500	1	12/05/2019 14:09	WG1391568
Toluene	U		0.412	0.500	1	12/05/2019 14:09	WG1391568
1,2,3-Trichlorobenzene	U		0.164	0.500	1	12/05/2019 14:09	WG1391568
1,2,4-Trichlorobenzene	U		0.355	0.500	1	12/05/2019 14:09	WG1391568
1,1,1-Trichloroethane	U		0.0940	0.500	1	12/05/2019 14:09	WG1391568
1,1,2-Trichloroethane	U		0.186	0.500	1	12/05/2019 14:09	WG1391568
Trichloroethene	U		0.153	0.500	1	12/05/2019 14:09	WG1391568
Trichlorofluoromethane	U		0.130	2.50	1	12/05/2019 14:09	WG1391568
1,2,3-Trichloropropane	U		0.247	2.50	1	12/05/2019 14:09	WG1391568
1,2,4-Trimethylbenzene	U		0.123	0.500	1	12/05/2019 14:09	WG1391568
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	12/05/2019 14:09	WG1391568
1,3,5-Trimethylbenzene	U		0.124	0.500	1	12/05/2019 14:09	WG1391568
Vinyl acetate	U		0.645	5.00	1	12/05/2019 14:09	WG1391568
Vinyl chloride	U		0.118	0.500	1	12/05/2019 14:09	WG1391568
Xylenes, Total	U		0.316	1.50	1	12/05/2019 14:09	WG1391568
Di-isopropyl ether	U		0.0924	0.500	1	12/05/2019 14:09	WG1391568
Ethanol	U	J4	42.0	100	1	12/05/2019 14:09	WG1391568
Ethyl tert-butyl ether	U		0.270	1.00	1	12/05/2019 14:09	WG1391568
Methyl tert-butyl ether	U		0.102	0.500	1	12/05/2019 14:09	WG1391568
tert-Butyl alcohol	U	J4	2.40	5.00	1	12/05/2019 14:09	WG1391568
tert-Amyl Methyl Ether	U		0.260	1.00	1	12/05/2019 14:09	WG1391568
(S) Toluene-d8	99.4			80.0-120		12/05/2019 14:09	WG1391568
(S) 4-Bromofluorobenzene	98.1			77.0-126		12/05/2019 14:09	WG1391568
(S) 1,2-Dichloroethane-d4	105			70.0-130		12/05/2019 14:09	WG1391568

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



Method Blank (MB)

(MB) R3478092-1 12/02/19 11:10

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Lead	U		1.90	5.00

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

(LCS) R3478092-2 12/02/19 11:12 • (LCSD) R3478092-3 12/02/19 11:15

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 %
Lead	1000	962	957	96.2	95.7	80.0-120			0.472	20

L1165068-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1165068-05 12/01/19 13:43 • (MS) R3478103-2 12/01/19 13:48 • (MSD) R3478103-3 12/01/19 13:50

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead	1000	ND	999	971	99.9	97.1	1	75.0-125			2.86	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3481967-1 12/12/19 14:13

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Lead,Dissolved	U		1.90	5.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

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

(LCS) R3481967-2 12/12/19 14:15 • (LCSD) R3481967-3 12/12/19 14:18

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	%	%	%			%	%
Lead,Dissolved	1000	918	918	91.8	91.8	80.0-120			0.00512	20

L1169312-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1169312-01 12/12/19 14:21 • (MS) R3481967-5 12/12/19 14:27 • (MSD) R3481967-6 12/12/19 14:29

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Lead,Dissolved	1000	ND	940	930	94.0	93.0	1	75.0-125			1.05	20



Method Blank (MB)

(MB) R3479546-2 12/05/19 12:24

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	41.9	J	31.6	100
(S) a,a,a-Trifluorotoluene(FID)	95.4			78.0-120

Laboratory Control Sample (LCS)

(LCS) R3479546-1 12/05/19 11:26

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	5810	106	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			100	78.0-120	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

[L1165843-01,02,03,04,05,06](#)

Method Blank (MB)

(MB) R3480131-2 12/07/19 08:56

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	53.0	J	31.6	100
(S) a,a,a-Trifluorotoluene(FID)	103			78.0-120

Laboratory Control Sample (LCS)

(LCS) R3480131-3 12/07/19 09:49

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	6330	115	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			105	78.0-120	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3479576-3 12/05/19 13:07

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	3.09	U	1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Method Blank (MB)

(MB) R3479576-3 12/05/19 13:07

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylbenzene	U		0.158	0.500
Ethanol	U		42.0	100
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
tert-Amyl Methyl Ether	U		0.260	1.00
Ethyl tert-butyl ether	U		0.270	1.00
tert-Butyl alcohol	U		2.40	5.00
(S) Toluene-d8	98.0			80.0-120
(S) 4-Bromofluorobenzene	102			77.0-126
(S) 1,2-Dichloroethane-d4	107			70.0-130

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS)

(LCS) R3479576-1 12/05/19 12:05

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Acetone	25.0	50.9	204	19.0-160	J4
Acrylonitrile	25.0	37.0	148	55.0-149	
Benzene	5.00	4.95	99.0	70.0-123	
Bromobenzene	5.00	4.87	97.4	73.0-121	
Bromodichloromethane	5.00	5.28	106	75.0-120	
Bromochloromethane	5.00	5.16	103	76.0-122	
Bromoform	5.00	4.92	98.4	68.0-132	
Bromomethane	5.00	5.02	100	10.0-160	
n-Butylbenzene	5.00	5.59	112	73.0-125	
sec-Butylbenzene	5.00	5.09	102	75.0-125	
tert-Butylbenzene	5.00	4.99	99.8	76.0-124	
Carbon disulfide	5.00	4.54	90.8	61.0-128	
Carbon tetrachloride	5.00	5.11	102	68.0-126	
Chlorobenzene	5.00	4.94	98.8	80.0-121	
Chlorodibromomethane	5.00	5.17	103	77.0-125	
Chloroethane	5.00	5.10	102	47.0-150	
Chloroform	5.00	4.85	97.0	73.0-120	
Chloromethane	5.00	5.41	108	41.0-142	
2-Chlorotoluene	5.00	4.94	98.8	76.0-123	
4-Chlorotoluene	5.00	5.02	100	75.0-122	
1,2-Dibromo-3-Chloropropane	5.00	5.96	119	58.0-134	
1,2-Dibromoethane	5.00	5.19	104	80.0-122	
Dibromomethane	5.00	5.35	107	80.0-120	
1,2-Dichlorobenzene	5.00	5.14	103	79.0-121	
1,3-Dichlorobenzene	5.00	5.18	104	79.0-120	
1,4-Dichlorobenzene	5.00	4.97	99.4	79.0-120	
Dichlorodifluoromethane	5.00	4.69	93.8	51.0-149	
1,1-Dichloroethane	5.00	5.13	103	70.0-126	
1,2-Dichloroethane	5.00	5.12	102	70.0-128	
1,1-Dichloroethene	5.00	4.76	95.2	71.0-124	
cis-1,2-Dichloroethene	5.00	5.01	100	73.0-120	
trans-1,2-Dichloroethene	5.00	5.00	100	73.0-120	
1,2-Dichloropropane	5.00	5.41	108	77.0-125	
1,1-Dichloropropene	5.00	5.16	103	74.0-126	
1,3-Dichloropropane	5.00	5.20	104	80.0-120	
cis-1,3-Dichloropropene	5.00	5.37	107	80.0-123	
trans-1,3-Dichloropropene	5.00	5.13	103	78.0-124	
trans-1,4-Dichloro-2-butene	5.00	5.06	101	33.0-144	
2,2-Dichloropropane	5.00	5.10	102	58.0-130	
Di-isopropyl ether	5.00	5.26	105	58.0-138	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3479576-1 12/05/19 12:05

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Ethylbenzene	5.00	4.89	97.8	79.0-123	
Hexachloro-1,3-butadiene	5.00	6.14	123	54.0-138	
2-Hexanone	25.0	28.5	114	67.0-149	
n-Hexane	5.00	5.31	106	57.0-133	
Iodomethane	25.0	24.5	98.0	33.0-147	
Isopropylbenzene	5.00	4.94	98.8	76.0-127	
p-Isopropyltoluene	5.00	5.16	103	76.0-125	
2-Butanone (MEK)	25.0	36.7	147	44.0-160	
Methylene Chloride	5.00	5.17	103	67.0-120	
4-Methyl-2-pentanone (MIBK)	25.0	30.2	121	68.0-142	
Methyl tert-butyl ether	5.00	5.55	111	68.0-125	
Naphthalene	5.00	5.76	115	54.0-135	
n-Propylbenzene	5.00	4.85	97.0	77.0-124	
Styrene	5.00	4.97	99.4	73.0-130	
1,1,1,2-Tetrachloroethane	5.00	5.06	101	75.0-125	
1,1,2,2-Tetrachloroethane	5.00	5.38	108	65.0-130	
1,1,2-Trichlorotrifluoroethane	5.00	4.41	88.2	69.0-132	
Tetrachloroethene	5.00	4.89	97.8	72.0-132	
Toluene	5.00	4.99	99.8	79.0-120	
1,2,3-Trichlorobenzene	5.00	6.22	124	50.0-138	
1,2,4-Trichlorobenzene	5.00	5.90	118	57.0-137	
1,1,1-Trichloroethane	5.00	4.93	98.6	73.0-124	
1,1,2-Trichloroethane	5.00	5.21	104	80.0-120	
Trichloroethene	5.00	5.17	103	78.0-124	
Trichlorofluoromethane	5.00	4.78	95.6	59.0-147	
1,2,3-Trichloropropane	5.00	5.32	106	73.0-130	
1,2,4-Trimethylbenzene	5.00	4.76	95.2	76.0-121	
1,2,3-Trimethylbenzene	5.00	4.81	96.2	77.0-120	
1,3,5-Trimethylbenzene	5.00	4.67	93.4	76.0-122	
Vinyl acetate	25.0	30.6	122	11.0-160	
Vinyl chloride	5.00	4.86	97.2	67.0-131	
Xylenes, Total	15.0	14.7	98.0	79.0-123	
tert-Butyl alcohol	25.0	72.6	290	27.0-160	J4
Ethanol	250	2750	1100	10.0-160	J4
tert-Amyl Methyl Ether	5.00	5.35	107	66.0-125	
Ethyl tert-butyl ether	5.00	5.48	110	63.0-138	
(S) Toluene-d8			95.4	80.0-120	
(S) 4-Bromofluorobenzene			100	77.0-126	
(S) 1,2-Dichloroethane-d4			105	70.0-130	

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc



Method Blank (MB)

(MB) R3480185-2 12/06/19 05:18

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	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	108			80.0-120
(S) 4-Bromofluorobenzene	96.1			77.0-126
(S) 1,2-Dichloroethane-d4	93.3			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3480185-1 12/06/19 04:37

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	5.00	5.19	104	70.0-123	
1,2-Dichloroethane	5.00	4.92	98.4	70.0-128	
Ethylbenzene	5.00	5.69	114	79.0-123	
Methyl tert-butyl ether	5.00	5.19	104	68.0-125	
Toluene	5.00	5.31	106	79.0-120	
Xylenes, Total	15.0	16.0	107	79.0-123	
(S) Toluene-d8			104	80.0-120	
(S) 4-Bromofluorobenzene			100	77.0-126	
(S) 1,2-Dichloroethane-d4			91.6	70.0-130	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3480188-3 12/06/19 13:55

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
tert-Butyl alcohol	U		2.40	5.00
(S) Toluene-d8	101			80.0-120
(S) 4-Bromofluorobenzene	100			77.0-126
(S) 1,2-Dichloroethane-d4	98.6			70.0-130

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

(LCS) R3480188-1 12/06/19 12:57 • (LCSD) R3480188-2 12/06/19 13:16

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 %
tert-Butyl alcohol	25.0	21.1	23.1	84.4	92.4	27.0-160			9.05	30
(S) Toluene-d8				102	99.4	80.0-120				
(S) 4-Bromofluorobenzene				102	98.6	77.0-126				
(S) 1,2-Dichloroethane-d4				99.6	102	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3478950-1 12/02/19 19:23

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Ethylene Dibromide	U		0.00240	0.0100

L1165843-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1165843-02 12/02/19 20:07 • (DUP) R3478950-3 12/02/19 19:56

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Ethylene Dibromide	U	0.000	1.02	0.000		20

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

(LCS) R3478950-4 12/02/19 21:59 • (LCSD) R3478950-5 12/03/19 00:12

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	%	%	%			%	%
Ethylene Dibromide	0.250	0.206	0.211	82.4	84.4	60.0-140			2.40	20

L1165843-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1165843-04 12/02/19 19:45 • (MS) R3478950-2 12/02/19 19:34

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	ug/l	ug/l	ug/l	%		%	
Ethylene Dibromide	0.101	U	0.0852	84.4	1.01	64.0-159	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT [L1165843-01,02,03,04](#)

Method Blank (MB)

(MB) R3477748-1 11/30/19 21:28

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Residual Range Organics (RRO)	U		83.3	250
Diesel Range Organics (DRO)	U		66.7	200
(S) o-Terphenyl	85.0			52.0-156

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

(LCS) R3477748-2 11/30/19 21:53 • (LCSD) R3477748-3 11/30/19 22:19

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)	1500	1420	1440	94.7	96.0	50.0-150			1.40	20
(S) o-Terphenyl				89.5	84.0	52.0-156				

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3477792-1 12/01/19 12:25

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Residual Range Organics (RRO)	U		83.3	250
Diesel Range Organics (DRO)	U		66.7	200
(S) o-Terphenyl	75.0			52.0-156

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

(LCS) R3477792-2 12/01/19 12:46 • (LCSD) R3477792-3 12/01/19 13:07

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Diesel Range Organics (DRO)	1500	1440	1470	96.0	98.0	50.0-150			2.06	20
(S) o-Terphenyl				109	112	52.0-156				

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3477808-3 12/01/19 01:20

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzo(a)anthracene	U		0.00410	0.0500
Benzo(a)pyrene	U		0.0116	0.0500
Benzo(b)fluoranthene	U		0.00212	0.0500
Benzo(k)fluoranthene	U		0.0136	0.0500
Chrysene	U		0.0108	0.0500
Dibenz(a,h)anthracene	U		0.00396	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500
Naphthalene	U		0.0198	0.250
1-Methylnaphthalene	U		0.00821	0.250
2-Methylnaphthalene	U		0.00902	0.250
(S) Nitrobenzene-d5	86.0			31.0-160
(S) 2-Fluorobiphenyl	94.5			48.0-148
(S) p-Terphenyl-d14	107			37.0-146

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

(LCS) R3477808-1 12/01/19 00:33 • (LCSD) R3477808-2 12/01/19 00:57

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 %
Benzo(a)anthracene	2.00	1.99	1.92	99.5	96.0	61.0-140			3.58	20
Benzo(a)pyrene	2.00	1.91	1.89	95.5	94.5	60.0-143			1.05	20
Benzo(b)fluoranthene	2.00	1.83	1.85	91.5	92.5	58.0-141			1.09	20
Benzo(k)fluoranthene	2.00	2.01	1.91	100	95.5	58.0-148			5.10	20
Chrysene	2.00	1.92	1.89	96.0	94.5	64.0-144			1.57	20
Dibenz(a,h)anthracene	2.00	1.79	1.76	89.5	88.0	52.0-155			1.69	20
Indeno(1,2,3-cd)pyrene	2.00	1.88	1.85	94.0	92.5	54.0-153			1.61	20
Naphthalene	2.00	1.72	1.65	86.0	82.5	61.0-137			4.15	20
1-Methylnaphthalene	2.00	1.83	1.79	91.5	89.5	66.0-142			2.21	20
2-Methylnaphthalene	2.00	1.71	1.64	85.5	82.0	62.0-136			4.18	20
(S) Nitrobenzene-d5				89.5	86.5	31.0-160				
(S) 2-Fluorobiphenyl				99.0	93.5	48.0-148				
(S) p-Terphenyl-d14				109	106	37.0-146				

Method Blank (MB)

(MB) R3477926-3 12/01/19 22:56

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzo(a)anthracene	U		0.00410	0.0500
Benzo(a)pyrene	U		0.0116	0.0500
Benzo(b)fluoranthene	0.00284	J	0.00212	0.0500
Benzo(k)fluoranthene	U		0.0136	0.0500
Chrysene	U		0.0108	0.0500
Dibenz(a,h)anthracene	U		0.00396	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500
Naphthalene	0.0222	J	0.0198	0.250
1-Methylnaphthalene	0.00880	J	0.00821	0.250
2-Methylnaphthalene	0.0136	J	0.00902	0.250
(S) Nitrobenzene-d5	107			31.0-160
(S) 2-Fluorobiphenyl	111			48.0-148
(S) p-Terphenyl-d14	132			37.0-146

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3477963-1 12/02/19 08:30

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzo(a)anthracene	U		0.00410	0.0500
Benzo(a)pyrene	U		0.0116	0.0500
Benzo(b)fluoranthene	U		0.00212	0.0500
Benzo(k)fluoranthene	U		0.0136	0.0500
Chrysene	U		0.0108	0.0500
Dibenz(a,h)anthracene	U		0.00396	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500
Naphthalene	0.0262	J	0.0198	0.250
1-Methylnaphthalene	0.0105	J	0.00821	0.250
2-Methylnaphthalene	0.0157	J	0.00902	0.250
(S) Nitrobenzene-d5	108			31.0-160
(S) 2-Fluorobiphenyl	127			48.0-148
(S) p-Terphenyl-d14	136			37.0-146

Method Blank (MB)

(MB) R3478004-1 12/02/19 10:06

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzo(a)anthracene	U		0.00410	0.0500
Benzo(a)pyrene	U		0.0116	0.0500
Benzo(b)fluoranthene	U		0.00212	0.0500
Benzo(k)fluoranthene	U		0.0136	0.0500
Chrysene	U		0.0108	0.0500
Dibenz(a,h)anthracene	U		0.00396	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500
Naphthalene	0.0283	J	0.0198	0.250
1-Methylnaphthalene	0.00972	J	0.00821	0.250
2-Methylnaphthalene	0.0139	J	0.00902	0.250
(S) Nitrobenzene-d5	88.0			31.0-160
(S) 2-Fluorobiphenyl	126			48.0-148
(S) p-Terphenyl-d14	123			37.0-146

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3478073-1 12/02/19 10:02

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzo(a)anthracene	U		0.00410	0.0500
Benzo(a)pyrene	U		0.0116	0.0500
Benzo(b)fluoranthene	0.00303	J	0.00212	0.0500
Benzo(k)fluoranthene	U		0.0136	0.0500
Chrysene	U		0.0108	0.0500
Dibenz(a,h)anthracene	U		0.00396	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500
Naphthalene	0.0282	J	0.0198	0.250
1-Methylnaphthalene	0.0119	J	0.00821	0.250
2-Methylnaphthalene	0.0165	J	0.00902	0.250
(S) Nitrobenzene-d5	124			31.0-160
(S) 2-Fluorobiphenyl	115			48.0-148
(S) p-Terphenyl-d14	120			37.0-146

Method Blank (MB)

(MB) R3478342-1 12/02/19 21:54

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzo(a)anthracene	U		0.00410	0.0500
Benzo(a)pyrene	U		0.0116	0.0500
Benzo(b)fluoranthene	U		0.00212	0.0500
Benzo(k)fluoranthene	U		0.0136	0.0500
Chrysene	U		0.0108	0.0500
Dibenz(a,h)anthracene	U		0.00396	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500
Naphthalene	0.0366	U	0.0198	0.250
1-Methylnaphthalene	0.0101	U	0.00821	0.250
2-Methylnaphthalene	0.0147	U	0.00902	0.250
(S) Nitrobenzene-d5	132			31.0-160
(S) 2-Fluorobiphenyl	123			48.0-148
(S) p-Terphenyl-d14	122			37.0-146

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

(LCS) R3477926-1 12/01/19 22:12 • (LCSD) R3477926-2 12/01/19 22:34

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 %
Benzo(a)anthracene	2.00	1.80	1.68	90.0	84.0	61.0-140			6.90	20
Benzo(a)pyrene	2.00	1.76	1.66	88.0	83.0	60.0-143			5.85	20
Benzo(b)fluoranthene	2.00	1.72	1.64	86.0	82.0	58.0-141			4.76	20
Benzo(k)fluoranthene	2.00	1.86	1.74	93.0	87.0	58.0-148			6.67	20
Chrysene	2.00	1.81	1.70	90.5	85.0	64.0-144			6.27	20
Dibenz(a,h)anthracene	2.00	1.76	1.70	88.0	85.0	52.0-155			3.47	20
Indeno(1,2,3-cd)pyrene	2.00	1.71	1.65	85.5	82.5	54.0-153			3.57	20
Naphthalene	2.00	1.84	1.72	92.0	86.0	61.0-137			6.74	20
1-Methylnaphthalene	2.00	1.85	1.72	92.5	86.0	66.0-142			7.28	20
2-Methylnaphthalene	2.00	1.71	1.60	85.5	80.0	62.0-136			6.65	20
(S) Nitrobenzene-d5				95.5	85.0	31.0-160				
(S) 2-Fluorobiphenyl				91.5	84.5	48.0-148				
(S) p-Terphenyl-d14				112	102	37.0-146				

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

L1165843-01

Method Blank (MB)

(MB) R3478676-3 12/03/19 16:01

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzo(a)anthracene	0.00664	⬇	0.00410	0.0500
Benzo(a)pyrene	U		0.0116	0.0500
Benzo(b)fluoranthene	0.00249	⬇	0.00212	0.0500
Benzo(k)fluoranthene	U		0.0136	0.0500
Chrysene	U		0.0108	0.0500
Dibenz(a,h)anthracene	U		0.00396	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500
Naphthalene	0.0252	⬇	0.0198	0.250
1-Methylnaphthalene	0.0119	⬇	0.00821	0.250
2-Methylnaphthalene	0.0172	⬇	0.00902	0.250
(S) Nitrobenzene-d5	107			31.0-160
(S) 2-Fluorobiphenyl	112			48.0-148
(S) p-Terphenyl-d14	124			37.0-146

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

(LCS) R3478676-1 12/03/19 15:17 • (LCSD) R3478676-2 12/03/19 15:39

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 %
Benzo(a)anthracene	2.00	2.14	2.04	107	102	61.0-140			4.78	20
Benzo(a)pyrene	2.00	2.07	1.97	103	98.5	60.0-143			4.95	20
Benzo(b)fluoranthene	2.00	2.03	1.89	102	94.5	58.0-141			7.14	20
Benzo(k)fluoranthene	2.00	2.04	2.00	102	100	58.0-148			1.98	20
Chrysene	2.00	2.10	1.99	105	99.5	64.0-144			5.38	20
Dibenz(a,h)anthracene	2.00	2.17	2.06	108	103	52.0-155			5.20	20
Indeno(1,2,3-cd)pyrene	2.00	2.10	1.99	105	99.5	54.0-153			5.38	20
Naphthalene	2.00	2.15	2.06	108	103	61.0-137			4.28	20
1-Methylnaphthalene	2.00	2.14	2.06	107	103	66.0-142			3.81	20
2-Methylnaphthalene	2.00	2.04	1.95	102	97.5	62.0-136			4.51	20
(S) Nitrobenzene-d5				108	103	31.0-160				
(S) 2-Fluorobiphenyl				111	105	48.0-148				
(S) p-Terphenyl-d14				124	118	37.0-146				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



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.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, 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.
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.
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.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
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

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: The identification of the analyte is acceptable, but the reported concentration is an estimate. The calibration method criteria.
J4	The associated batch QC was outside the established quality control range for accuracy.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Pace National 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.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

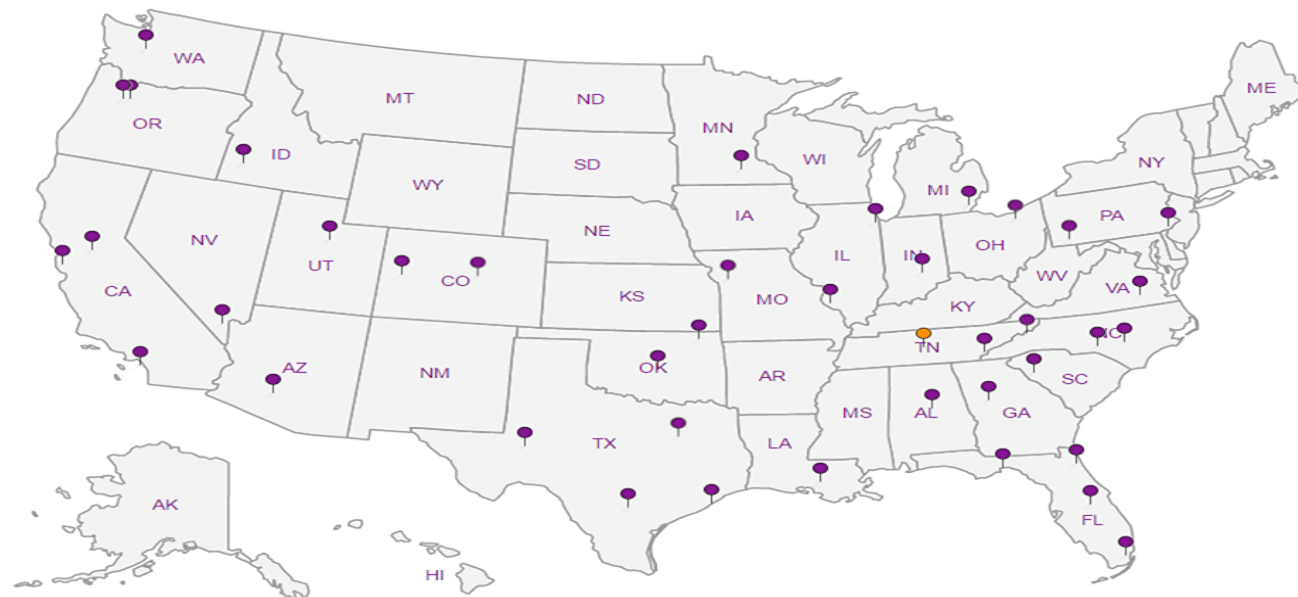
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National 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. Pace National performs all testing at our central laboratory.



ATTACHMENT C

Puget Sound Clean Air Agency Permit



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.

Order of Approval for NC No. 10813

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

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