



July 23, 2019

1413.001.05

Washington Department of Ecology
Northwest Regional Office Toxics Control Program
3190 – 160th Ave. SE
Bellevue, WA 98008-5452
Attn: Ms. Tamara Cardona

BY EMAIL ONLY

**GROUNDWATER AND SOIL VAPOR DATA SUMMARY, SECOND QUARTER 2019
AMERICAN LINEN SUPPLY CO-DEXTER AVE SITE
AGREED ORDER NO. DE 14302**

Dear Ms. Cardona:

PES Environmental, Inc. (“PES”) has prepared this data submittal on behalf of BMR-Dexter LLC (“BMRD”) for the American Linen Supply Co—Dexter Avenue Site (the “Site”) located at 700 Dexter Avenue North, Seattle, Washington. This submittal documents the second quarter 2019 sampling of interim action performance monitoring wells at the 700 Dexter Avenue North property (the “Property”). Consistent with the Final Interim Action Work Plan (“IAWP”)¹ and the Final Contingent Action Addendum (“CAA”) to the Final IAWP², PES measured groundwater levels, collected groundwater samples, and collected soil vapor samples during the quarter to document the chlorinated volatile organic compound (“CVOC”) concentrations in groundwater and soil vapor during implementation of the interim action. This technical memorandum summarizes the procedures and results of the second quarter monitoring event.

Interim action and construction activities were being performed on the Property concurrently with groundwater monitoring event. The construction activities were related to the installation of the shoring system required for the soil excavation and included installation of the soldier piles, installation of tie-backs and lagging, exporting of soil generated during the shoring system installation work, and exporting of clean fill used to construct working benches for soldier pile installation. Other activities included beginning demolition of the former building slab, footings, and other subsurface structures and construction of the water treatment system for construction stormwater and dewatering water. Dewatering was not occurring during the second quarter 2019 monitoring event.

GROUNDWATER MONITORING PROCEDURES

PES measured one round of groundwater levels in all available monitoring wells at the Site on April 22, 2019. In addition, PES collected groundwater samples from 43 monitoring wells outside of

¹ PES Environmental, Inc. 2018. *Final Interim Action Work Plan, American Linen Supply Co-Dexter Avenue Site, 700 Dexter Avenue North, Seattle, Washington*. Prepared for BMR-Dexter LLC. August.

² PES Environmental, Inc. 2019. Letter from D. Balbiani and B. O’Neal to T. Cardona (Ecology) re: *Final Contingent Action Addendum to the Final Interim Action Work Plan, Former American Linen Supply Co-Dexter Ave Site, Agreed Order No. DE 14302*. February 14.

the Property between April 22 and May 3, 2019, including 8 Shallow Zone wells, 12 Intermediate A Zone wells, 10 Intermediate B Zone wells, and 13 Deep Zone wells. Monitoring wells on the Property were decommissioned after they were sampled in March 2019. Figure 1 shows the monitoring well locations. The monitoring wells were sampled consistent with the performance monitoring plan specified in the IAWP and CAA, except for the following:

- Intermediate A Zone monitoring well GEI-1 and Deep Zone monitoring wells FMW-131 and GEI-2 (all located at 630 Westlake Avenue North) and FMW-129 (located on the Seattle Department of Transportation property south of Roy Street) were added to the performance monitoring well network to provide current groundwater data, since they had last been sampled in June 2017; and
- Intermediate A Zone monitoring wells MW115 and MW116 and Deep Zone monitoring well MW113 (all located on the west side of the 9th Avenue North right-of-way) were not sampled due to lack of a City of Seattle permit to access the wells in the newly created bike lane.

PES used an electronic water level probe to measure depth to groundwater in the wells, and either a peristaltic or bladder pump to purge and sample the wells. Wells were purged at pumping rates of 200 mL/min or less. One primary groundwater sample was collected from each monitoring well, with duplicate samples collected from MW120, MW-153, MW-156, and MW-159. One equipment rinsate blank and nine trip blanks were also collected. All samples were shipped to Pace Analytical in Mount Juliet, Tennessee, for analysis of VOCs by Environmental Protection Agency (“EPA”) Method 8260C. Groundwater samples from wells near the Property were also analyzed for gasoline-range organics (“GRO”) by Washington State Department of Ecology (“Ecology”) Method NWTPH-Gx, and groundwater samples from a subset of wells across the Site were also analyzed for geochemical parameters as described in the Final IAWP and CAA. Groundwater sampling, sample analysis, and health and safety procedures were performed consistent with the Sampling and Analysis Plan, Quality Assurance/Quality Control Plan, and Health and Safety Plan provided in the Final IAWP.

VAPOR PROBE SAMPLING PROCEDURES

PES collected soil vapor samples on April 29, 2019, from three soil vapor probes (SV01, SV02, and SV03) located on the east side of 8th Avenue North across from the Property (Figure 1). The vapor probes were sampled consistent with the performance monitoring plan specified in the IAWP. The soil vapor samples were collected in the vadose zone just above the groundwater capillary fringe, at depths ranging from 11.75 to 12.75 feet bgs, and analyzed for VOCs, including tetrachloroethene (“PCE”), trichloroethene (“TCE”), cis-1,2-dichloroethene (“cDCE”), trans-1,2-dichloroethene (“tDCE”), and vinyl chloride (“VC”). Soil vapor sampling, sample analysis, and health and safety procedures were performed consistent with the Sampling and Analysis Plan, Quality Assurance/Quality Control Plan, and Health and Safety Plan provided in the Final IAWP.

RESULTS

Groundwater Elevations and Flow Directions. Table 1 provides the March 14, 2019, depth to groundwater measurements and calculated groundwater elevations. Depth to groundwater varied from 7.6 feet bgs in SCL-MW101 to 39.6 feet bgs in MW-138, and groundwater elevations (relative to NAVD 88) ranged from 17.2 feet in MW-153 to 38.2 feet in R-MW5.

Figure 2 presents groundwater contours for the Shallow, Intermediate A, Intermediate B, and Deep Zones using data measured on April 22, 2019. The groundwater flow direction in the Shallow and Intermediate A Zones was to the east-northeast, similar to the March 2019 groundwater level event. The general groundwater flow direction in the Intermediate B Zone was also to the east-northeast, although relatively high groundwater elevations near the eastern part of the Property indicate a westward component of flow in the Intermediate B Zone on the western part of the Property. This condition may be a residual effect of the interim action injections in the low-permeability Intermediate B Zone. Similar to the March 2019 groundwater level event, the groundwater flow direction in the Deep Zone was westward to the west of 9th Avenue North, and eastward to the east of 9th Avenue North. In locations with co-located wells in different zones, the vertical gradient was generally downward (e.g., at the MW121/MW-142/MW-143 well nest). Comparing the March 2017, March 2019, and April 2019 groundwater elevation contours for the Shallow, Intermediate A, and Deep Zones suggests that the interim action activities have not significantly affected groundwater flow in these zones. Groundwater elevation contours for the Intermediate B Zone were not prepared for March 2017, so a direct comparison between the March 2017 and 2019 Intermediate B Zone events cannot be made.

Groundwater Analytical Results. Tables 2 through 6 provide the groundwater results for all wells monitored historically at the Site. Table 2 presents the field parameter measurements. Tables 3, 4, and 5 provide the results for GRO; benzene, toluene, ethylbenzene, and total xylenes (“BTEX”); and PCE, TCE, cDCE, tDCE, and VC in the Shallow, Intermediate A and B, and Deep Zones, respectively. Table 6 presents the geochemical parameter results. Attachment A presents time-trend plots for the primary chlorinated VOCs (PCE, TCE, cDCE, and VC) in wells sampled historically at the Site. In the second quarter sampling event, the analytical laboratory reported all sample results to the method detection limit (“MDL”) to provide VC detection limits below the VC screening level. To evaluate the laboratory’s performance in meeting EPA’s quality control criteria, PES has reviewed the second quarter analytical reports and has added data qualifiers as necessary. Attachment B provides the analytical laboratory reports and data validation memorandum. The data collected in the second quarter were uploaded to Ecology’s Environmental Information Management database on June 19, 2019.

In the eight sampled Shallow Zone wells, GRO, BTEX, and tDCE were not detected above their respective screening levels in the second quarter 2019 sampling event. PCE, TCE, cDCE, and VC were detected at least once above their respective screening levels in the Shallow Zone wells, with the highest concentrations in MW-9. MW125 and R-MW5 did not have detections of these CVOCs above the screening levels.

In the 12 sampled Intermediate A Zone wells, toluene, ethylbenzene, total xylenes, and tDCE were not detected above their respective screening levels in the second quarter 2019 sampling event. Benzene was detected once above the screening level (MW108), and PCE, TCE, cDCE, and VC were detected above the screening levels in multiple Intermediate A Zone wells. Following are the highest detected concentrations of the primary CVOCs:

- PCE: 1,500 µg/L in MW110;
- TCE: 717 µg/L in MW-156;
- cDCE: 1,760 µg/L in MW-156; and

- VC: 125J µg/L in MW108.

Intermediate A Zone well GEI-1 did not have detections of GRO, BTEX, or the five primary CVOCs above the MDLs.

In the 10 sampled Intermediate B Zone wells, BTEX and tDCE were not detected above their respective screening levels in the second quarter 2019 sampling event. PCE was detected once above the screening level (MW-157), and TCE, cDCE, and VC were detected above the screening levels in multiple Intermediate B Zone wells. Following are the highest detected concentrations of the PCE breakdown products:

- TCE: 40.1 µg/L in W-MW-02;
- cDCE: 3,550 µg/L in MW-157; and
- VC: 622 µg/L in MW-157.

Intermediate B Zone wells MW112, MW126, and MW-143 did not have detections of GRO, BTEX, or the five primary CVOCs above the MDLs.

In the 13 sampled Deep Zone wells, toluene, ethylbenzene, total xylenes, and tDCE were not detected above their respective screening levels in the second quarter 2019 sampling event. Benzene was detected once above the screening level (GEI-2), and PCE, TCE, cDCE, and VC were detected above the screening levels in multiple Deep Zone wells. Following are the highest detected concentrations of the primary CVOCs:

- PCE: 101 µg/L in FMW-129;
- TCE: 166 µg/L in FMW-129;
- cDCE: 372 µg/L in FMW-129; and
- VC: 57.7J µg/L in GEI-2.

FMW-131 and MW-160 did not have detections of GRO, BTEX, or the five primary CVOCs above the screening levels, and MW102, MW106, MW122, and MW-138 did not have detections of GRO, BTEX, or the five primary CVOCs above the MDLs.

GRO was also detected in groundwater samples at concentrations exceeding the screening level (Tables 4 and 5); these were qualified, however, as a result of the data quality review. The data validation review of the laboratory reports indicated that the GRO concentrations above the screening levels in two wells (MW-156 and MW-157) were likely biased high due to the presence of CVOCs in the samples. The data validation review of the laboratory reports also indicated that the GRO results below the screening levels in six wells (MW-9, MW104, MW107, MW120, MW-147, and W-MW-02) were also biased high due to the presence of CVOCs in the samples. None of the unqualified GRO results exceeded the GRO screening level.

Soil Vapor Analytical Results. Table 7 provides the analytical results for PCE, TCE, cDCE, tDCE, and VC, none of which were detected above the laboratory reporting limit in April 2019. These results are consistent with the September 2018 and February 2019 results.

Ms. Tamara Cardona

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PES Environmental, Inc.

Please call if you have any questions or comments regarding information included in this data submittal.

Sincerely,

PES ENVIRONMENTAL, INC.



Daniel A. Balbiani, P.E.
Principal Engineer



William R. Haldeman, LHG, R.G.
Associate Hydrogeologist

cc: John Moshy, BMRD

Attachments

Table 1 – Summary of Groundwater Elevations, April 22, 2019

Table 2 – Groundwater Field Parameters

Table 3 – Groundwater Analytical Data, Shallow Zone Wells

Table 4 – Groundwater Analytical Data, Intermediate Zone Wells

Table 5 – Groundwater Analytical Data, Deep Zone Wells

Table 6 – Groundwater Geochemical Parameters

Table 7 – Soil Vapor Analytical Results

Figure 1 – Site-Wide Exploration Location Map

Figure 2 – Groundwater Elevation Contours, April 22, 2019

Attachment A – CVOC Time-Trend Plots

Attachment B – Laboratory Reports and Data Validation Memorandum

Table 1

Summary of Groundwater Elevations, April 22, 2019
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Property	Screen Interval (ft below TOC)	Top of Casing Elevation (feet)	Depth to Groundwater ^a	Groundwater Elevation ^b
Shallow Zone					
MW-8	800 Aloha Street Parcel	4.5 to 19	33.19	11.18	22.01
MW-9	8th Avenue N ROW	7 to 22	40.81	13.93	26.88
MW121	8th Avenue N ROW	15 to 25	41.72	11.58	30.14
MW125	Valley Street ROW	15 to 30	43.55	14.95	28.60
MW-154	Roy Street ROW	25 to 35	52.57	22.40	30.17
MW-155	Roy Street ROW	20 to 30	44.05	17.95	26.10
MW-159	8th Avenue N ROW	20 to 30	42.79	15.67	27.12
MW214	Valley Street ROW	TD = 15	27.32	9.03	18.29
R-MW5	Dexter Avenue N ROW	15 to 30	57.03	18.83	38.20
R-MW6	Property	12 to 22	45.28	Not accessible	—
SCL-MW101	Alley E of 800 Aloha St	--	30.46	7.55	22.91
SCL-MW105	Alley E of 800 Aloha St	--	31.26	7.98	23.28
SCS-2	800 Aloha Street Parcel	Unknown	39.16	16.29	22.87
SMW-3	Valley Street ROW	Unknown	26.57	8.71	17.86
Intermediate A Zone					
BB-8	Roy Street ROW	30 to 40	43.69	15.36	28.33
GEI-1	Block 37	26.8 to 36.8	27.95	9.28	18.67
MW107	8th Avenue N ROW	35 to 45	43.82	13.35	30.47
MW108	Alley	40 to 50	32.78	13.19	19.59
MW109	Alley	35 to 45	34.97	15.62	19.35
MW110	Alley	35 to 45	39.67	20.08	19.59
MW115	9th Avenue N ROW	35 to 45	34.10	15.42	18.68
MW116	9th Avenue N ROW	35 to 45	31.34	12.41	18.93
MW119	9th Avenue N ROW	35 to 45	37.42	18.64	18.78
MW120	8th Avenue N ROW	40 to 50	40.00	15.79	24.21
MW-142	8th Avenue N ROW	40-50	42.12	15.75	26.37
MW-144	8th Avenue N ROW	40-50	43.50	15.73	27.77
MW-146	Roy Street ROW	40-50	52.34	22.15	30.19
MW-156	8th Avenue N ROW	40-50	41.24	16.06	25.18
Intermediate B Zone					
MW111	Alley	70 to 80	36.48	17.44	19.04
MW112	Dexter Avenue N ROW	75 to 85	57.45	34.71	22.74
MW126	Alley	85 to 95	30.94	12.62	18.32
W-MW-01	8th Avenue N ROW	70 to 80	44.88	Not accessible	—

Table 1

Summary of Groundwater Elevations, April 22, 2019
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Property	Screen Interval (ft below TOC)	Top of Casing Elevation (feet)	Depth to Groundwater ^a	Groundwater Elevation ^b
MW-143	8th Avenue N ROW	70-80	42.04	18.42	23.62
MW-145	8th Avenue N ROW	70 to 80	43.46	20.62	22.84
MW-147	Roy Street ROW	70 to 80	51.85	27.14	24.71
MW-148	Roy Street ROW	70 to 80	43.91	24.26	19.65
MW-157	8th Avenue N ROW	70 to 80	41.22	15.32	25.90
W-MW-02	8th Avenue N ROW	70 to 80	43.46	16.13	27.33
Deep Zone					
FMW-131	Block 37	63 to 73	27.85	9.82	18.03
GEI-2	Block 37	50.5 to 60.5	29.38	11.26	18.12
MW102	Valley Street ROW	115 to 125	49.19	31.78	17.41
MW103	Alley	103.5 to 113.5	35.92	17.50	18.42
MW104	8th Avenue N ROW	119 to 129	42.68	24.86	17.82
MW105	Roy Street ROW	130 to 140	44.17	26.06	18.11
MW106	SDOT Property S of Roy St	130 to 140	51.99	34.53	17.46
MW113	9th Avenue N ROW	70 to 80	32.90	14.21	18.69
MW122	Alley	105 to 119	30.03	11.60	18.43
MW123	Westlake Avenue N ROW	70 to 80	27.51	8.89	18.62
MW124	Valley Street ROW	110 to 120	56.24	38.81	17.43
MW128	Westlake Avenue N ROW	60 to 70	28.59	10.43	18.16
FMW-129	SDOT Property S of Roy St	84 to 89	38.31	19.72	18.59
MW-138	Dexter Ave N	105 to 115	57.06	39.64	17.42
MW-153	Roy Street ROW	120 to 130	54.35	37.12	17.23
MW-158A	8th Avenue N ROW	90 to 100	41.09	23.29	17.80
MW-160	8th Avenue N ROW	118 to 128	43.46	24.56	18.90
MW-161	8th Avenue N ROW	130 to 140	43.82	26.33	17.49
NOTES:					
^a As measured in feet below a fixed spot on the well casing rim.					
^b Calculated by subtracting the depth to groundwater from the casing elevation.					
-- = unknown					
ROW = right-of-way					
TOC = top of casing (PVC)					
TD = Total Depth					

Table 2

**Groundwater Field Parameters
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	pH	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	ORP (mv)	Ferrous Iron (mg/L)
Shallow Zone									
F13	Property	03/27/17	6.80	756	15.4	3.4	0.86	-139	1.0
		06/22/17	7.00	865	20.2	—	0.27	-148	1.5
		04/05/18	6.84	491	16.6	—	0.50	67	—
		Decommissioned March 2019							
F5	Property	03/28/17	6.05	1,001	10.9	5.8	0.99	-50.5	—
		06/22/17	6.38	1,080	19.5	—	0.80	-87.1	—
		Decommissioned March 2019							
F9	Property	03/27/17	6.69	1,270	16.6	3.1	0.74	-151	—
		06/22/17	6.76	1,309	27.5	—	0.24	-149	—
		Decommissioned March 2019							
G12	Property	03/27/17	7.34	1,296	20.7	—	0.41	150	1.25
		06/30/17	6.88	1,239	29.1	—	1.30	-87	—
		Decommissioned March 2019							
J5	Property	03/21/17	6.95	251	15.1	4.6	0.70	-114	0.6
		06/26/17	6.94	484	19.8	—	0.42	-143	—
		04/05/18	6.85	286	14.1	—	0.50	77	—
		Decommissioned March 2019							
J15	Property	03/27/17	7.42	935	14.1	—	0.48	141	2.0
		06/26/17	6.86	920	20.8	—	0.44	-99	1.5
		04/05/18	6.83	716	18.1	—	0.40	103	—
		Decommissioned March 2019							
K8	Property	03/21/17	7.70	251	18.3	-0.3	0.80	-121	0.0
		06/26/17	7.76	257	22.3	—	0.25	-4	0.0
		04/05/18	9.45	220	16.7	—	0.70	56	—
		Decommissioned March 2019							
M15	Property	03/27/17	7.16	1,544	18.7	—	0.60	140	2.75
		06/26/17	6.71	1,440	25.6	—	0.70	-84	—
		04/05/18	6.90	1,034	18.0	—	0.40	86	—
		Decommissioned March 2019							
MW121	8th Ave N ROW	12/26/13	6.89	1,610	—	—	4.16	-30	1.9
		03/28/17	6.63	2,608	14.4	2.9	0.99	-122	2.0
		06/20/17	8.29	2,437	19.9	—	0.52	-88	3.0
		04/05/18	6.64	2,028	17.2	—	0.60	120	—
		01/31/19	6.87	2,396	15.3	—	0.42	-3	—
		04/29/19	6.75	2,521	18.1	—	0.30	9	—
MW125	Valley Street ROW	12/26/13	6.28	1,414	—	—	8.68	22	1.47
		03/22/17	6.62	1,296	14.6	3.7	1.00	-116	—
		06/28/17	6.71	984	17.1	—	1.91*	-101	—
		04/06/18	6.89	831	17.5	—	0.30	-68	—
		01/21/19	6.67	912	15.8	—	0.48	122	—
		04/23/19	6.74	987	16.3	—	0.65	65	—

Table 2

Groundwater Field Parameters
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Property	Sample Date	pH	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	ORP (mv)	Ferrous Iron (mg/L)
MW-154	Roy St ROW	04/30/18	7.26	469	16.3	—	0.40	72	—
		01/21/19	7.25	523	14.4	—	0.61	99	—
		04/24/19	7.09	459	18.6	—	0.48	103	—
MW-155	Roy St ROW	04/27/18	6.79	479	13.3	—	3.20	94	—
		01/21/19	6.52	500	12.3	—	2.43	119	—
		04/23/19	6.51	663	14.7	—	1.80	41	0.00
MW-159	8th Ave N ROW	04/26/18	6.92	928	18.9	—	0.70	109	—
		01/21/19	6.92	1,125	14.1	—	0.59	126	—
		04/26/19	6.83	1,279	14.5	—	0.54	79	—
MW214 (dry)	Valley Street ROW	03/30/17	7.47	467	11.0	3.6	5.91	-70.1	—
		06/21/17	—	—	—	—	—	—	—
		04/09/18	8.94	380	13.7	—	8.00	401.2	—
MW-8 (dry)	800 Aloha Street Parcel	03/20/17	6.47	1,080	14.2	11.4	1.30	-4.0	—
		06/27/17	—	—	—	—	—	—	—
		04/13/18	5.99	540	13.1	—	0.80	261	—
MW-9	8th Ave N ROW	12/16/13	6.72	132	—	—	0.20	263	3.41
		03/20/17	6.64	1,203	13.0	0.0	1.00	-109	—
		06/20/17	6.41	1,391	20.8	—	0.76	-93	—
		04/05/18	6.73	1,299	13.4	—	0.80	128	—
		01/21/19	6.63	1,179	12.5	—	0.71	143	—
		04/26/19	6.68	632	16.6	—	0.50	62	—
N7	Property	03/30/17	6.82	350	15.9	2.8	1.11	-73.8	0.0
		06/27/17	6.83	505	24.9	1.7	1.74*	-3.5	0.25
		Decommissioned March 2019							
R-MW2	Property	03/21/17	7.00	723	11.4	17.6	0.80	-161	—
		06/15/17	6.78	766	15.5	—	0.43	-161	—
		04/02/18	6.68	737	14.5	—	0.70	49	—
		Decommissioned March 2019							
R-MW3	Property	03/21/17	7.06	1,616	16.7	4.1	0.90	-38.7	—
		06/28/17	7.11	1,258	23.5	—	1.01	#####	—
		04/04/18	6.96	1,241	16.8	—	0.50	98.3	—
		Decommissioned March 2019							
R-MW5	8th Ave N ROW	03/23/17	6.12	537	17.1	—	0.80	-36.6	1.0
		06/16/17	5.85	516	17.6	—	1.12	#####	—
		04/11/18	9.57 ^(a)	504	15.5	—	0.50	213.2	—
		01/03/19	5.96	533	14.7	—	0.81	71.1	—
		04/22/19	6.14	410	15.9	—	0.54	100.2	—
R-MW6	8th Ave N ROW	03/21/17	6.56	1,280	14.8	6.6	0.80	-38.5	—
		06/20/17	6.57	1,407	18.0	—	0.84	-55.5	1.5
		04/06/18	6.72	1,137	16.8	—	0.70	113.1	—
		01/25/19	6.75	1,055	14.9	—	0.33	#####	—
		04/25/19	6.77	1,295	17.5	—	0.40	18.0	—

Table 2

Groundwater Field Parameters
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Property	Sample Date	pH	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	ORP (mv)	Ferrous Iron (mg/L)
SCL-MW101	Alley Between 8th & 9th Ave N	03/28/17	7.34	834	11.8	—	0.35	118	—
		06/14/17	6.35	628	17.9	—	0.12	-49	—
		04/06/18	6.61	654	14.3	—	0.30	66	—
SCL-MW105	Alley Between 8th & 9th Ave N	03/28/17	7.19	1,049	12.6	—	0.50	136	—
		06/15/17	6.45	1,086	15.8	—	1.11	-95	—
		04/06/18	6.73	968	15.4	—	0.40	76	—
SCS-2	800 Aloha Street Parcel	03/20/17	6.50	947	13.0	1.6	1.00	-142	—
		06/12/17	6.41	761	17.3	—	0.59	-31	—
		04/13/18	10.72 ^(a)	199	10.5	—	0.80	215	—
SMW-3	Valley Street ROW	03/30/17	6.48	743	11.8	2.9	0.98	-85.7	—
		06/21/17	6.35	589	20.9	—	0.41	-57.3	—
		04/09/18	7.79 ^(a)	807	14.9	—	0.60	-17.8	—
Intermediate A Zone									
BB-8	Roy Street ROW	12/29/13	6.56	8,560	—	—	0.72	224	0.01
		03/22/17	6.74	621	14.6	-0.6	1.80	-22.9	0.0
		06/14/17	6.29	649	14.5	—	1.12	187.9	0.0
		04/11/18	6.96	512	14.5	—	0.70	84.9	0.0
		01/23/19	6.80	700	12.9	—	0.76	154.2	0.0
		04/23/19	6.94	649	14.2	—	1.28	33.8	0.0
GEI-1	Block 37	03/24/17	6.41	1,127	12.0	24.1	0.80	-103	1.0
		06/13/17	6.65	553	14.9	—	0.56	-38	—
		04/22/19	6.35	1,099	13.3	—	0.68	-46	—
MW107	8th Ave N ROW	12/16/13	6.62	900	—	—	1.14	22	0.43
		03/27/17	7.10	1,434	13.7	—	0.50	141	2.0
		06/19/17	6.24	1,434	22.5	—	0.77	-30	1.5
		04/09/18	6.73	1,193	18.4	—	0.30	49	4.0
		01/30/19	6.99	1,299	11.0	—	0.74	127	—
		05/01/19	6.85	1,216	16.9	—	0.33	24	2.0
MW108	Alley Between 8th & 9th Ave N	12/17/13	6.36	1,570	—	—	0.50	-72	21.7
		03/28/17	6.65	1,410	13.6	2.0	0.97	-99	2.5
		06/27/17	6.72	1,252	16.3	—	4.45*	-108	2.0
		04/06/18	6.69	1,026	14.6	—	0.60	136	—
		01/22/19	6.77	1,053	11.9	—	0.80	132	—
		04/29/19	6.61	1,296	14.4	—	0.42	-18	—
MW109	Alley Between 8th & 9th Ave N	12/17/13	6.68	1,540	—	—	0.31	-78	16.2
		03/29/17	6.59	916	14.9	2.8	0.77	-115	1.5
		06/27/17	6.72	1,129	16.9	—	3.85*	-107	1.5
		04/06/18	6.71	1,112	14.3	—	0.50	136	—
		01/23/19	6.97	1,203	15.7	—	0.59	143	—
		04/29/19	6.52	1,128	14.2	—	0.45	40	—

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Groundwater Field Parameters
Former American Linen Supply
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Sample Location	Property	Sample Date	pH	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	ORP (mv)	Ferrous Iron (mg/L)
MW110	Alley Between 8th & 9th Ave N	12/19/13	8.82	888	—	—	0.52	291	0.04
		03/23/17	6.66	1,109	13.1	0.4	1.05	-46.5	0.1
		06/27/17	7.13	1,010	17.2	—	1.42*	56.7	0.0
		04/09/18	6.22	895	16.1	—	0.70	431.4	—
		01/23/19	6.74	1,020	14.5	—	0.41	103.2	—
		04/26/19	6.67	998	16.7	—	0.49	135.0	—
MW115	9th Ave N ROW	12/19/13	6.80	1,220	—	—	0.71	-61	6.69
		03/22/17	7.28	880	14.8	—	0.51	160	1.5
		06/22/17	6.85	778	20.2	—	0.39	-102	1.5
		04/11/18	6.91	860	13.1	—	0.40	89	—
		01/30/19	7.03	912	12.7	—	0.57	116	—
MW116	9th Ave N ROW	12/19/13	6.84	498	—	—	0.67	75	2.65
		03/21/17	7.05	814	13.3	6.2	0.80	-127	3.9
		06/16/17	6.86	749	18.7	—	0.41	-641	1.8
		04/11/18	7.11	830	13.3	—	0.40	75	—
		01/30/19	7.09	771	15.5	—	0.65	-122	2.0
MW119	9th Ave N ROW	12/19/13	9.56	579	—	—	0.34	295	18.6
		03/29/17	6.41	631	13.4	2.4	0.85	-90.7	2.0
		06/28/17	6.29	676	17.4	—	4.88*	11.0	1.5
		04/05/18	6.30	517	13.1	—	0.60	119.1	—
		01/21/19	6.76	67	12.6	—	6.76	114.4	—
		04/29/19	6.33	652	15.1	—	0.42	-2.7	—
MW120	8th Ave N ROW	12/19/13	6.63	743	—	—	1.30	-13	0.17
		03/28/17	7.93	622	9.5	—	0.75	123	—
		06/28/17	6.60	568	17.8	—	1.33*	91	—
		04/09/18	6.96	423	15.1	—	0.40	37	0.00
		01/24/19	6.66	649	14.0	—	0.73	110	—
		05/03/19	6.46	533	14.6	—	0.36	253	NR
MW131	Property	03/27/17	7.01	2,045	19.5	2.4	0.85	-134	1.9
		06/20/17	15.39 ^(a)	2,071	21.9	—	0.62	-86	—
		04/16/18	6.96	1,610	17.3	—	0.30	18	1.8
		10/25/18	6.66	1,546	18.9	—	0.39	-55	—
		12/12/18	6.78	1,899	14.5	—	0.44	129	—
		01/29/19	6.86	1,948	9.2	—	0.77	137	—
		03/11/19	6.70	1,849	14.0	—	1.30	-21	—
		Decommissioned March 2019							
MW-142	8th Ave N ROW	04/27/18	6.96	1,349	18.9	—	0.50	133	1.50
		01/28/19	6.94	1,528	11.7	7.9	0.75	152	2.00
		04/24/19	7.00	1,541	15.6	—	0.70	121	1.20
MW-144	8th Ave N ROW	04/27/18	7.34	1,739	16.4	—	0.40	100	0.50
		01/28/19	7.44	1,798	13.1	5.3	0.57	125	—
		04/23/19	7.39	1,749	16.8	—	0.45	67	1.2

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MW-146	Roy St ROW	04/30/18	7.27	694	17.0	—	0.40	95	1.25
		01/22/19	7.56	621	12.1	—	0.48	122	2.00
		04/24/19	7.20	564	16.5	—	0.76	11	2.50
MW-149	Property	04/10/18	6.57	895	16.1	64.2 ^(b)	0.70	201	1.8
		10/25/18	6.41	814	19.3	—	0.17	-31	—
		12/13/18	6.56	1,354	16.5	—	1.79	132	0.5
		01/29/19	6.67	1,209	17.1	2.9	17.05	121	0.0
		03/13/19	6.29	1,648	17.2	—	0.12	-178	—
		Decommissioned March 2019							
MW-151	Property	04/10/18	6.69	809	15.1	23.5 ^(b)	0.60	64	0.8
		10/25/18	6.26	3,599	18.5	—	0.06	-135	—
		12/14/18	6.74	2,314	11.0	—	0.13	-122	—
		01/31/19	6.86	2,151	13.0	—	0.18	21	—
		03/12/19	6.40	1,430	12.3	—	0.23	-278	—
		Decommissioned March 2019							
MW-156	8th Ave N ROW	04/26/18	6.72	996	18.3	—	0.60	116	0.00
		01/24/19	6.70	1,263	16.1	78.1	0.54	131	0.00
		04/24/19	6.73	1,481	16.8	—	0.57	103	0.40
Intermediate B Zone									
MW111	Alley Between 8th & 9th Ave N	12/17/13	7.58	498	—	—	1.19	-99	0.18
		03/23/17	7.62	447	14.0	-0.5	1.19	-147	0.1
		06/14/17	7.29	431	19.7	—	1.15	-33	—
		04/06/18	7.75	605	15.3	—	0.60	83	—
		01/23/19	7.86	528	14.2	—	0.50	-124	—
		04/22/19	7.84	384	13.7	—	0.58	-46	—
MW112	Dexter Ave N ROW	12/26/13	7.79	378	—	—	2.58	223	0.23
		03/22/17	7.96	419	14.9	—	0.93	132	—
		06/16/17	7.11	49	22.0	—	5.22	-457	—
		04/12/18	7.07	41	14.8	—	1.10	35	0.00
		12/21/18	6.88	108	13.9	—	0.77	68	—
		04/22/19	7.52	196	17.0	—	0.38	-70	1.00
MW126	Alley Between 8th & 9th Ave N	03/28/17	7.41	397	12.8	2.0	1.37	-112	—
		06/15/17	7.69	385	15.9	—	0.70	-64	—
		04/06/18	7.87	353	14.3	—	0.30	99	—
		01/22/19	7.88	432	10.7	—	1.25	115	—
		04/29/19	7.34	427	14.7	—	0.42	7	—
MW130	Property	03/29/17	7.18	751	9.6	—	2.66	132	1.0
		06/30/17	7.32	858	29.7	—	0.99	-70	0.0
		05/21/18	7.69	571	26.3	—	1.07	-72	0.0
		12/17/18	7.74	1,183	16.5	—	44.9	—	0.0
		01/31/19	7.40	1,176	21.4	—	59.05	112	0.0
		Decommissioned March 2019							

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MW-132	Property	09/25/17	8.52 ^(a)	652	27.3	39.7 ^(b)	0.70	#####	—
		04/26/18	7.70	466	25.9	—	3.50	81.6	—
		10/25/18	7.58	568	19.1	—	1.10	16.7	—
		12/13/18	7.60	668	14.2	—	0.93	117.0	—
		01/31/19	7.66	712	14.9	—	0.74	-40.3	—
		03/11/19	7.62	592	17.2	—	0.99	-24	—
	Decommissioned March 2019								
MW-134	Property	09/22/17	13.08 ^(a)	565	19.0	MAX ^(b)	0.91	-47.7	—
		04/16/18	7.10	598	15.7	—	0.10	#####	0.00
		10/25/18	7.41	748	18.3	—	0.30	157.3	—
		12/12/18	7.56	649	17.0	—	0.50	#####	—
		01/28/19	7.74	747	17.1	—	0.53	#####	—
		03/12/19	7.06	759	16.8	—	0.38	171	—
	Decommissioned March 2019								
MW-135	Property	09/25/17	9.11 ^(a)	871	25.3	208 ^(b)	1.10	-24.8	—
		04/25/18	7.38	837	19.5	—	0.80	99.2	1.50
		10/25/18	7.19	1034	17.6	—	0.77	-68.3	—
		12/13/18	7.41	1341	15.4	—	0.47	124.0	0.75
		01/31/19	7.34	1269	21.1	—	0.13	#####	—
		03/13/19	7.13	1,661	15.0	—	0.18	194	—
	Decommissioned March 2019								
MW-136	Property	09/25/17	10.07 ^(a)	465	24.2	MAX ^(b)	0.60	-61.0	—
		04/16/18	7.94	447	21.9	—	0.40	-77.2	0.60
		10/29/18	7.57	521	20.8	—	0.62	10.6	—
		12/13/18	7.56	539	18.6	—	0.34	#####	—
		02/01/19	7.41	546	18.7	—	1.42	-53.6	—
		03/12/19	7.36	687	14.2	—	0.50	172	—
	Decommissioned March 2019								
MW-139	Property	09/25/17	9.65 ^(a)	340	26.4	MAX ^(b)	0.60	-163	—
		04/25/18	7.79	432	20.3	—	0.40	89	0.75
		10/25/18	7.70	445	18.5	—	0.84	-13	—
		12/13/18	7.56	531	12.5	—	0.91	120	—
		01/28/19	7.92	534	13.4	—	1.19	-134	—
		03/11/19	7.11	703	18.4	—	0.70	-56	—
	Decommissioned March 2019								
MW-143	8th Ave ROW	04/30/18	7.83	905	15.4	—	0.60	97	0.50
		01/29/19	7.64	950	18.1	80.4	0.23	-148	0.75
		04/24/19	7.29	965	14.7	—	0.83	100	0.30
MW-145	8th Ave ROW	04/27/18	8.01	718	17.0	—	0.30	101	0.00
		01/29/19	7.60	740	17.4	94.9	0.98	-101	0.00
		04/26/19	7.89	722	16.5	—	0.36	-43	0.00

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MW-147	Roy St ROW	05/01/18	7.85	911	16.8	—	0.40	79	—
		01/22/19	7.60	892	8.6	—	0.79	118	1.00
		04/23/19	7.07	685	17.3	—	0.42	-103	1.50
MW-148	Roy St ROW	05/01/18	8.06	499	13.7	—	0.40	107	0.25
		01/23/19	7.80	706	12.0	—	0.66	116	—
		04/26/19	6.94	717	13.8	—	0.43	82	0.40
MW-150	Property	04/10/18	7.11	845	17.5	73.5 ^(b)	0.60	315	0.00
		10/25/18	6.79	1,282	18.6	—	0.05	-114	—
		12/12/18	6.95	1,812	15.0	—	0.39	134	—
		01/29/19	6.88	1,959	15.8	—	0.15	123	—
		03/13/19	6.39	2,489	16.5	—	0.19	-214	—
		Decommissioned March 2019							
MW-152	Property	04/10/18	7.45	846	15.2	15.8 ^(b)	0.60	372	0.00
		10/26/18	6.83	894	17.0	—	0.62	-85	—
		12/14/18	6.47	1,207	14.5	—	0.75	116	1.00
		01/31/19	7.26	1632	11.6	—	9.10	125	—
		03/12/19	6.47	1,922	12.9	—	0.29	-186	—
		Decommissioned March 2019							
MW-157	8th Ave N ROW	04/26/18	6.92	867	20.7	—	0.70	97	—
		01/24/19	6.86	885	14.3	—	0.71	-64	3.00
		04/24/19	6.90	1296	17.9	—	0.31	74	3.00
W-MW-01	8th Ave N ROW	04/13/18	7.91	539	14.5	—	0.40	67	0.8
		10/29/18	7.50	565	16.6	—	0.67	-91	—
		12/13/18	7.36	583	17.9	—	0.34	-123	—
		01/25/19	7.46	703	12.4	MAX ^(b)	0.51	127	1.5
		03/11/19	7.36	737	15.4		0.36	198	—
		04/25/19	7.64	758	16.7		0.61	32	0.6
W-MW-02	8th Ave N ROW	12/16/13	7.05	999	—	—	0.30	-84	0.87
		03/27/17	6.53	1,239	17.8	—	0.41	135	1.75
		06/19/17	6.02	1,326	20.0	—	1.45*	-11	1.50
		06/12/18	6.80	1,594	16.1	—	0.75	23	3.40
		10/26/18	6.32	1,763	19.2	—	0.41	-63	—
		12/12/18	6.51	2,025	15.7	—	0.44	125	—
		01/25/19	6.49	1,687	16.9	25.2	0.53	-52	2.00
		03/11/19	6.50	1,832	14.8	—	0.95	-9	—
		04/23/19	6.68	1,688	13.7	—	0.72	52	0.50
Deep Zone									
FMW-129	SDOT Property S of Roy	04/10/17	8.88	891	12.4	—	0.82	-116	0.0
		06/23/17	6.82	703	20.2	—	0.60	-31	1.0
		05/01/19	6.83	666	15.9	—	0.44	7	—
FMW-131	Block 37	03/24/17	6.73	342	13.3	2.9	0.84	-41.6	0.5
		06/23/17	6.71	552	15.4	—	0.78	25.1	0.25
		04/22/19	6.44	224	12.6	—	0.41	-22.3	—

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FMW-3D	Block 31	03/24/17	6.85	302	13.7	16.9	1.06	-74.7	—
		06/23/17	6.81	356	19.9	—	0.48	-16.5	—
		Decommissioned							
GEI-2	Block 37	03/24/17	6.43	890	12.6	0.5	0.84	-77.6	0.25
		06/23/17	6.68	804	16.0	—	0.45	-80.0	1.0
		04/22/19	6.61	933	13.0	—	0.37	-44.6	—
MW102	Valley Street ROW	03/29/17	7.87	417	11.6	—	1.55	148	—
		06/15/17	7.89	292	16.8	—	0.69	-88	—
		04/25/18	7.89	297	19.5	—	0.40	66	1.00
		01/24/19	8.01	314	11.5	—	0.63	-124	0.00
		05/01/19	8.32	303	16.9	—	0.64	97	0.50
MW103	Alley Between 8th & 9th Ave N	12/18/13	10.45	735	—	—	0.26	267	1.39
		03/23/17	7.49	799	13.4	—	0.91	155	0.25
		06/12/17	7.35	648	17.0	—	0.31	-88	1.75
		04/06/18	7.52	521	15.1	—	0.60	91	—
		01/23/19	9.60	359	13.8	—	0.55	126	—
		04/22/19	7.21	693	13.4	—	0.60	6	—
MW104	8th Ave N ROW	12/17/13	8.49	591	—	—	0.48	245	5.03
		03/30/17	6.28	667	8.7	—	1.84	131	—
		06/30/17	7.70	383	25.5	—	0.23	-131	0.0
		04/09/18	8.47	425	20.9	—	0.20	33	0.3
		10/25/18	11.48	750	19.2	—	0.63	131	—
		12/13/18	9.33	334	19.6	—	0.20	-259	—
		02/01/19	9.65	153	20.2	MAX ^(b)	0.11	-205	0.0
		03/13/19	9.03	407	18.6		0.24	122	—
		04/23/19	9.10	376	18.6		0.21	-100	0.0
MW105	Roy Street ROW	12/29/13	7.49	1,165	—	—	1.26	216	2.01
		04/21/17	7.47	785	17.1	105	2.34	-36.8	—
		06/12/17	7.37	734	17.1	—	0.70	-64.1	—
		04/11/18	9.48 ^(a)	469	14.4	—	1.40	42.0	0.75
		01/23/19	7.66	570	13.4	—	0.67	107.1	—
		04/23/19	7.82	580	15.3	—	0.39	-57.7	0.50
MW106	SDOT Property S of Roy	04/14/17	9.47	726	15.1	457	2.00	1.7	0.0
		06/30/17	7.69	566	19.7	—	0.40	#####	0.0
		05/04/18	7.91	482	16.0	—	0.50	100.1	0.0
		04/26/19	7.79	507	15.6	—	0.53	-19.9	0.0
MW113	9th Ave N ROW	12/19/13	10.0	267	—	—	0.26	264	0.03
		03/22/17	6.54	1,426	15.2	2.1	1.10	-79.1	4.0
		06/16/17	6.52	1,145	12.9	—	0.57	-5.7	1.5
		04/11/18	9.44 ^(a)	946	15.0	—	0.60	62.5	—
		02/07/19	6.64	1,219	9.9	2.4	0.80	75.9	2.5
MW122	Alley Between 8th & 9th Ave N	03/28/17	7.89	519	13.5	—	0.64	109	—
		06/14/17	7.72	374	16.7	—	0.46	-69	—
		04/06/18	7.93	336	14.9	—	0.60	77	—

Table 2

**Groundwater Field Parameters
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	pH	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	ORP (mv)	Ferrous Iron (mg/L)
MW123	Westlake Ave N ROW	04/01/17	6.85	795	13.1	14.5	1.10	-117	—
		06/24/17	6.89	737	17.3	—	1.07	-89	—
		04/14/18	6.82	888	14.5	—	0.50	166	—
MW124	Valley Street ROW	12/26/13	7.84	285	—	—	1.43	217	0.39
		03/29/17	7.96	306	13.9	—	1.06	117	—
		06/15/17	7.64	292	16.5	—	0.50	9	—
		04/13/18	7.57	281	14.3	—	1.30	327	0.5
MW128	Westlake Ave N ROW	03/29/17	6.62	800	12.5	7.0	0.99	-88.0	1.80
		06/21/17	6.74	1588	17.8	—	0.56	-78.8	—
		04/09/18	7.57	850	17.9	—	0.40	-44.7	—
MW-133	Property	09/25/17	9.85 ^(a)	372	24.0	—	0.80	#####	—
		04/25/18	7.79	344	21.7	—	0.30	-24.8	1.25
		10/26/18	8.16	403	19.6	—	0.71	125.0	—
		12/12/18	7.69	362	17.3	—	0.90	-74.1	—
		02/01/19	7.76	362	19.4	—	0.34	#####	—
		03/13/19	6.99	413	12.1	—	0.91	181	—
		Decommissioned March 2019							
MW-137	Property	09/25/17	9.22 ^(a)	342	26.0	223 ^(b)	0.60	#####	—
		04/12/18	9.29	386	22.1	—	0.10	#####	0.75
		10/26/18	7.54	469	24.2	—	8.74	140.8	—
		12/12/18	7.27	398	18.8	—	0.74	#####	—
		02/01/19	9.26	437	18.8	—	0.21	#####	—
		03/11/19	7.39	493	18.1	—	0.50	180	—
		Decommissioned March 2019							
MW-138	Dexter Ave N ROW	09/21/17	8.32 ^(a)	390	18.1	MAX ^(b)	0.52	#####	—
		04/11/18	7.89	350	17.4	—	0.20	33.5	0.0
		10/29/18	7.43	346	16.5	—	0.38	121.9	—
		12/17/18	7.82	424	15.7	—	0.49	#####	—
		01/03/19	7.33	358	16.2	—	2.41	49.8	0.0
		03/14/19	6.76	426	14.2	—	0.44	149.2	—
		04/22/19	7.47	359	17.1	—	0.34	-64.7	3.5
MW-140	Roy St ROW	09/22/17	7.99 ^(a)	560	21.6	200 ^(b)	0.73	#####	—
		04/12/18	7.74	421	14.0	—	0.30	49.6	0.3
		Decommissioned							
MW-141	Property	09/22/17	9.90 ^(a)	398	24.0	MAX ^(b)	0.40	#####	—
		04/12/18	7.39	337	20.9	—	0.20	37.9	—
		10/25/18	7.25	376	19.5	—	0.41	149.5	—
		12/12/18	7.20	339	17.0	—	0.92	#####	—
		01/30/19	7.35	411	20.5	—	0.28	#####	—
		03/11/19	7.29	427	16.4	—	0.55	185	—
MW-153	Roy St ROW	05/01/18	8.91	369	16.5	—	0.40	87.2	—
		01/22/19	8.91	391	15.2	—	0.67	93.5	0.0
		04/24/19	8.62	327	18.0	—	0.45	92.6	0.0

Table 2

Groundwater Field Parameters
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Property	Sample Date	pH	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	ORP (mv)	Ferrous Iron (mg/L)
MW-158	8th Ave N ROW	04/30/18	8.20	1,306	14.8	—	0.40	102.3	0.5
		01/24/19	7.91	707	13.8	MAX ^(b)	0.53	#####	0.0
		04/25/19	7.58	775	17.7	—	0.48	37.5	NR
MW-160	8th Ave N ROW	05/21/18	7.96	323	23.2	—	0.42	#####	0.0
		01/25/19	7.57	404	18.4	MAX ^(b)	0.40	94.8	0.5
		05/01/19	7.71	359	24.0	—	0.32	#####	0.0
MW-161	8th Ave N ROW	05/21/18	7.59	544	21.6	—	0.48	#####	0.0
		01/25/19	7.49	661	17.9	MAX ^(b)	0.61	99.2	0.0
		04/29/19	7.27	662	18.4	—	0.31	24.2	0.0
MW-162	Property	02/05/19	7.68	541	12.7	7.5	0.29	109.6	—
		03/12/19	7.52	402	17.8	—	0.31	-81.9	—
		Decommissioned March 2019							
MW-163	Property	02/05/19	7.67	394	15.5	4.5	3.73	-44.7	—
		03/12/19	7.45	392	15.6	—	0.59	145.3	—
		Decommissioned March 2019							
MW-164	Property	02/05/19	7.63	462	14.6	10.5	0.56	-35.4	—
		03/12/19	7.30	686	15.4	—	0.23	148.7	—
		Decommissioned March 2019							
Treatment Zone A Injection Wells									
IW-4A	Property	03/28/18	6.49	540	17.1	—	0.50	65	—
IW-7A	Property	04/02/18	7.07	1,096	15.7	—	0.60	122.7	—
IW-9A	Property	03/29/18	6.58	528	16.8	—	1.40	88	—
IW-18A	Property	03/30/18	6.47	928	17.7	—	0.50	117	—
		12/13/18	6.26	2199	17.0	—	1.11	—	—
IW-22A	Property	04/02/18	6.96	1,005	18.6	—	0.60	92.5	—
IW-37A	Property	03/28/18	8.17	319	15.9	—	0.70	10	—
IW-38A	Property	12/14/18	6.60	1945	15.8	—	0.26	143.7	—
IW-41A	Property	04/10/18	8.12	364	17.4	—	0.30	58.7	—
IW-42A	Property	04/10/18	7.53	590	14.2	—	0.40	73	—
IW-45A	Property	04/04/18	7.18	573	13.3	—	0.70	68.7	—
IW-46A	Property	03/28/18	6.78	1564	14.7	—	0.50	89	—
IW-48A	Property	04/02/18	6.88	2,007	15.4	—	0.70	72.6	—
Treatment Zone B Injection Wells									
IW-3B	Property	03/28/18	6.65	669	16.0	—	0.70	66	—
IW-6B	Property	04/02/18	6.69	884	15.9	—	1.10	110.0	—
IW-8B	Property	03/30/18	7.66	471	13.6	—	0.80	111	—
IW-17B	Property	03/30/18	6.80	142	16.5	—	0.70	-6.3	—
		12/13/18	6.43	1,640	17.1	—	1.61	47.9	—
IW-21B	Property	04/02/18	7.01	1709	17.9	—	0.50	74	—
IW-22B	Property	04/25/18	7.09	693	19.4	—	0.60	98.1	—

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**Groundwater Field Parameters
Former American Linen Supply
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Sample Location	Property	Sample Date	pH	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	ORP (mv)	Ferrous Iron (mg/L)
IW-24B	Property	03/30/18	6.92	1279	17.8	—	0.70	72	—
IW-28B	Property	04/09/18 12/14/18	6.85 ^(a) 6.55	1,028 2,448	20.4 18.1	— —	0.40 0.55	-54.5 128.9	— —
IW-33B	Property	04/02/18	7.03	1425	16.7	—	0.70	87	—
IW-37B	Property	03/29/18	7.31	1,156	19.6	—	0.60	76.2	—
IW-45B	Property	03/28/18	7.40	949	18.0	—	0.70	64	—
IW-47B	Property	04/10/18	7.52	1,080	20.6	—	0.30	70.3	—
IW-49B	Property	03/28/18	6.98	1551	15.6	—	0.60	88	—
IW-51B	Property	03/28/18	7.69	1,100	15.7	—	0.30	#####	—
Treatment Zone C Injection Wells									
IW-1C	Property	03/29/18	7.71	578	14.5	—	0.80	104	—
IW-4C	Property	04/26/18 12/14/18	7.91 6.37	725 3,590	17.8 18.5	— —	0.70 34.50	109.1 185.1	— —
IW-8C	Property	04/04/18	9.13	1062	15.8	—	2.10	79	—
IW-9C	Property	04/02/18	7.36	967	18.5	—	0.80	85.3	—
IW-13C	Property	04/25/18	7.68	754	20.7	—	0.70	91	—
IW-15C	Property	03/30/18 12/13/18	7.32 6.59	1,343 2,448	19.8 14.7	— —	0.30 22.06	1.9 138.3	— —
IW-19C	Property	03/29/18	7.59	1122	19.3	—	0.80	98	—
IW-20C	Property	03/30/18	7.49	751	19.7	—	0.40	50.5	—
Treatment Zone D Injection Wells									
IW-1D	Property	04/03/18 12/13/18	8.96 6.72	591 2188	20.4 13.1	— —	0.40 0.28	-228 -34	— —
IW-3D	Property	04/03/18	7.58	761	21.8	—	0.50	72.3	—
IW-4D	Property	03/29/18	8.42	407	13.8	—	0.90	90	—
IW-6D	Property	04/03/18 12/13/18	7.73 6.31	366 2,952	18.1 15.1	— —	0.40 34.30	14.3 247.3	— —
IW-8D	Property	04/04/18	7.33	722	20.5	—	0.50	81	—
IW-9D	Property	04/04/18	7.63	505	18.5	—	5.50	85.7	—
IW-11D	Property	05/01/18	7.96	757	20.9	—	0.60	55.9	—
Notes:									
1. — = not measured									
2. ^(a) = pH meter not giving stable/reliable reading									
3. ^(b) = Turbidity reading collected and read with a turbidimeter after water sample collection.									
4. * =									
5. MAX = Turbidity greater than instrument upper detection limit.									

Table 3

Groundwater Analytical Data for Shallow Zone Wells
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

Sample Location	Well Screen Elevation (ft)	Sample Area	Sample Date	Sampled By	Sampling Method	Analytical Results (micrograms per liter)																
						GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC					
Screening Level						800	500	500	0.5	72	29	10,000	2.4	1	16	100	0.2					
On Property																						
F5	-	Property	07/19/13	SES	Peristaltic	-	-	-	-	-	-	-	120,000	1,100	700	5.20	4.2					
			10/24/13	SES	Peristaltic	-	-	-	-	-	-	-	21,000	1,200	1,000	1,000	200 U					
			03/28/17	PES	Peristaltic	234	-	-	0.515	0.727	U	0.158	U	0.316	U	0.241 J	4.31	90.6				
			06/22/17	PES	Peristaltic	31.6	U	-	0.374 J	0.708	U	0.158	U	0.316	U	0.485	10.4	0.485 J 63.9				
			Decommissioned March 2019																			
F9	-	Property	07/19/13	SES	Peristaltic	-	-	-	-	-	-	-	140,000	3,400	1,100	8.6	78					
			06/16/15	SES	Peristaltic	-	-	-	-	-	-	-	3.7	1.8	680	12	74					
			10/19/15	SES	Peristaltic	-	-	-	-	-	-	-	15.0	6.6	840	13	75					
			02/01/16	SES	Peristaltic	-	-	-	-	-	-	-	2.9	1 U	1.3	1 U	20					
			03/27/17	PES	Peristaltic	31.6	U	-	0.529	2.04	U	0.158	U	0.316	U	0.153 J	0.539	0.118 U				
			06/22/17	PES	Peristaltic	31.6	U	-	0.471 J	1.70	U	0.158	U	0.316	U	0.153 U	6.10	0.485 3.57				
			Decommissioned March 2019																			
F13	-	Property	07/19/13	SES	Peristaltic	-	-	-	-	-	-	-	2,900	280	370	100 U	49					
			10/24/13	SES	Peristaltic	-	-	-	-	-	-	-	7,300	3,100	490	50 U	10 U					
			11/18/13	SES	Peristaltic	-	-	-	-	-	-	-	67,000	6,600	3,200	85	48					
			12/12/13	SES	Peristaltic	-	-	-	-	-	-	-	1,100	340	670	10 U	20					
			03/07/14	SES	Peristaltic	-	-	-	-	-	-	-	84	11	10	1 U	0.36					
			06/16/15	SES	Peristaltic	-	-	-	-	-	-	-	8.4	1 U	1.8	1 U	0.31					
			10/19/15	SES	Peristaltic	-	-	-	-	-	-	-	1 U	2.0	210	2.3	4.1					
			02/02/16	SES	Peristaltic	-	-	-	-	-	-	-	3.4	1 U	1 U	1 U	0.97					
			03/27/17	PES	Peristaltic	31.6	U	-	0.0896 U	0.412 U	U	0.158	U	0.316	U	0.153 U	0.218 J	0.152 U 0.936				
			06/22/17	PES	Peristaltic	31.6	U	-	0.0896 U	0.412 U	U	0.158	U	0.316	U	0.153 U	0.194 J	0.152 U 1.32				
			04/05/18	PES	Peristaltic	31.6	U	-	0.0896 U	0.412 U	U	0.158	U	0.316	U	0.346 J	0.375 J	0.152 U 0.843				
			Decommissioned March 2019																			
G12	-	Property	07/19/13	SES	Peristaltic	-	-	-	-	-	-	-	64,000	3,100	9,200	88	130					
			10/24/13	SES	Peristaltic	-	-	-	-	-	-	-	1,700	150	100 U	100 U	20 U					
			11/18/13	SES	Peristaltic	-	-	-	-	-	-	-	760	84	42	10 U	2 U					
			03/27/17	PES	Peristaltic	-	-	-	0.243 J	0.412 U	U	0.158	U	0.316	U	0.233 J	95.9	1.97 28.4				
			06/30/17	PES	Peristaltic	-	-	-	0.282 J	0.412 U	U	0.158	U	0.316	U	0.323 J	115	2.94 31.5				
			Decommissioned March 2019																			
G-MW2	31 to 21	Property	07/24/01	GeoE	Peristaltic	-	-	-	0.375	48.3	E	2.01	12.88	176,000	237 g	129 g	1.02	0.457				
			01/29/09	DOF	Peristaltic	39,600 qp	-	-	20.0 U	20.0 U	U	20.0 U	48.9	59,000 f	210	373	1.33	0.200 U				
			06/02/11	SES	Peristaltic	59,000 xy	200	250	U	350 U	1,000 U	1,000 U	3,000 U	150,000	1000 U	1000 U	1000 U	200 U				
			09/06/12	SES	Peristaltic	-	-	-	0.35 U	12	U	1.1	4.7	150,000	320	260	1.4	0.2 U				
			Decommissioned																			
J5	-	Property	07/19/13	SES	Peristaltic	-	-	-	-	-	-	-	46,000	660	100 U	100 U	20 U					
			10/24/13	SES	Peristaltic	-	-	-	-	-	-	-	48,000	13,000	1,400	100 U	20 U					
			06/16/15	SES	Peristaltic	-	-	-	-	-	-	-	1,100	340	250	51	1.0					
			10/19/15	SES	Peristaltic	-	-	-	-	-	-	-	1,400	470	890	51	1.3					
			02/02/16	SES	Peristaltic	-	-	-	-	-	-	-	1,500	110	280	14	0.31					
			03/21/17	PES	Peristaltic	-	-	-	0.580	0.412 U	U	0.158	U	0.316	U	285	253	1.73 29.6				
			06/26/17	PES	Peristaltic	-	-	-	0.252 J	0.506	U	0.158	U	0.316	U	36.1	37.1	1.94 77.7				
			04/05/18	PES	Peristaltic	207	-	-	0.638													

Table 3

Groundwater Analytical Data for Shallow Zone Wells
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

Sample Location	Well Screen Elevation (ft)	Sample Area	Sample Date	Sampled By	Sampling Method	Analytical Results (micrograms per liter)												
						GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC	
					Screening Level	800	500	500	0.5	72	29	10,000	2.4	1	16	100	0.2	
J15 (duplicate)	—	Property	07/19/13	SES	Peristaltic	—	—	—	—	—	—	—	4,100	220	580	6.8	20	
			10/24/13	SES	Peristaltic	—	—	—	—	—	—	—	10,000	1,100	680	100	U	
			03/07/14	SES	Peristaltic	—	—	—	—	—	—	—	2,200	170	120	50	U	
			06/16/15	SES	Peristaltic	—	—	—	—	—	—	—	9.0	12	310	8.8	3.1	
			10/19/15	SES	Peristaltic	—	—	—	—	—	—	—	3.6	1	110	3.0	1.7	
			02/02/16	SES	Peristaltic	—	—	—	—	—	—	—	2.4	1	35	1	U	
			03/27/17	PES	Peristaltic	—	—	—	0.188 J	0.495 J	0.158 U	0.316 U	0.199 U	0.153 U	43.3	1.18	6.99	
			06/26/17	PES	Peristaltic	—	—	—	0.173 J	0.459 J	0.158 U	0.316 U	0.199 U	0.153 U	39.8	1.06	6.30	
			06/26/17	PES	Peristaltic	—	—	—	0.173 J	0.551	0.158 U	0.316 U	0.199 U	0.153 U	39.3	1.03	6.73	
			04/05/18	PES	Peristaltic	41.2	J	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.358 J	26.3	0.709	6.07	
Decommissioned March 2019																		
K8	—	Property	07/19/13	SES	Peristaltic	—	—	—	—	—	—	—	8,700	330	1,400	5.6	6.3	
			06/17/15	SES	Peristaltic	—	—	—	—	—	—	—	63	16	500	67	2 U	
			10/19/15	SES	Peristaltic	—	—	—	—	—	—	—	360	82	43	3.2	0.44	
			02/01/16	SES	Peristaltic	—	—	—	—	—	—	—	250	44	82	1.8	0.31	
			03/21/17	PES	Peristaltic	—	—	—	0.239 J	0.412 U	0.158 U	0.316 U	82.5	22.0	123	0.680	0.461 J	
			06/26/17	PES	Peristaltic	—	—	—	0.246 J	0.412 U	0.158 U	0.316 U	67.9	28.7	140	0.750	0.456 J	
			04/05/18	PES	Peristaltic	156	—	—	0.251 J	0.412 U	0.158 U	0.316 U	229	26.3	104	0.750	1.45	
			Decommissioned March 2019															
(duplicate)	—	Property	07/19/13	SES	Peristaltic	—	—	—	—	—	—	—	3,200	110	180	1.7	0.22	
			10/24/13	SES	Peristaltic	—	—	—	—	—	—	—	56,000	1,100	770	50	U	
			03/07/14	SES	Peristaltic	—	—	—	—	—	—	—	2,100	190	290	2.9	2.60	
			06/16/15	SES	Peristaltic	—	—	—	—	—	—	—	58	44	76	2.7	1.1	
			10/19/15	SES	Peristaltic	—	—	—	—	—	—	—	48	29	110	2.3	0.74	
			02/02/16	SES	Peristaltic	—	—	—	—	—	—	—	11	10	84	1.8	0.39	
			03/27/17	PES	Peristaltic	—	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.733	32.7	0.561	13.2	
			03/27/17	PES	Peristaltic	—	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.670	31.7	0.513	12.0	
			06/26/17	PES	Peristaltic	—	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.233 J	1.80	25.8	0.523	15.0	
			04/05/18	PES	Peristaltic	31.6	U	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.563	8.89	0.300 J	11.1	
Decommissioned March 2019																		
N7	—	Property	07/19/13	SES	Peristaltic	—	—	—	—	—	—	—	640	50	18	1	U	
			10/19/15	SES	Peristaltic	—	—	—	—	—	—	—	2,900	99	9.9	1	U	
			02/02/16	SES	Peristaltic	—	—	—	—	—	—	—	230	79	1,700	2.9	0.92	
			03/30/17	PES	Peristaltic	—	—	—	0.178 J	0.412 U	0.158 U	0.316 U	280	50.4	125	0.396 J	0.310 J	
			06/27/17	PES	Peristaltic	—	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	205	85.1	153	0.955	0.386 J	
			Decommissioned March 2019															
R-MW1	33.78 to 23.78	Property	10/24/92	Roux	Unknown	57	1,345	6,000	1	1	0.5	U	0.5	U	5	U	100	
			10/24/92	DOF	Unknown	53	26,000	12,000	0.61	0.83	0.50	U	1.0	U	4.2	0.82	170	
			10/24/92	Roux	Unknown	54	290	5,000	0.58	1	0.5	U	0.5	U	2.3	NA	140	
			01/29/09	DOF	Peristaltic	50.0	U	—	0.500 U	0.500 U	0.500 U	U	1.00	U	17.1	4.26	1.60	
			06/02/11	SES	Peristaltic	100	U	1,000 x	740	0.35 U	1 U	1 U	3 U	7.9	2.7	1.9	1 U	0.68
			09/05/12	SES	Peristaltic	—	—	—	0.35 U	1 U	1 U	1 U	3 U	16	3.6	2.1	1 U	2.20
			Decommissioned															

Table 3

Groundwater Analytical Data for Shallow Zone Wells
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

Sample Location	Well Screen Elevation (ft)	Sample Area	Sample Date	Sampled By	Sampling Method	Analytical Results (micrograms per liter)																
						GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC					
					Screening Level	800	500	500	0.5	72	29	10,000	2.4	1	16	100	0.2					
R-MW2	36.74 to 26.74	Property	10/24/92	Roux	Unknown	4,200	34	2,000	684	17	301	403	5	U	5	U	5	U				
			10/24/92	DOF	Unknown	4,000	16,000	25,000	310	0.50	140	180	—	—	—	—	—	—				
			01/29/09	DOF	Peristaltic	657	—	—	0.500	U	0.557	0.513	2.08	5.05	0.200	U	0.200	U				
			06/02/11	SES	Peristaltic	1,700	3,100	290	x	19	1	U	1	U	1	U	1	U				
			09/04/12	SES	Peristaltic	—	—	—	0.35	U	1	U	3	U	1	U	1	U				
			03/21/17	PES	Peristaltic	—	—	—	0.272	J	0.412	U	0.158	U	0.199	U	0.153	U				
			06/15/17	PES	Peristaltic	—	—	—	0.694	U	0.412	U	0.158	U	0.199	U	0.153	U				
			04/02/18	PES	Peristaltic	38.0	U	—	—	0.568	0.412	U	0.158	U	0.316	U	0.866	0.620				
			Decommissioned March 2019																			
R-MW3	34.74 to 24.74	Property	10/24/92	Roux	Unknown	87	U	3,015	1,200	0.5	U	0.5	U	0.5	U	5	U	5	U	5	U	
			10/24/92	DOF	Unknown	50	U	—	—	0.50	U	0.50	U	0.50	U	1.0	U	—	—	—	—	
			01/29/09	DOF	Peristaltic	50.0	U	—	—	0.500	U	0.500	U	0.500	U	1.00	U	4.26	0.200	U	0.200	U
			06/02/11	SES	Peristaltic	100	U	240	x	250	U	0.35	U	1	U	1	U	1	U	1	U	
			09/04/12	SES	Peristaltic	—	—	—	0.35	U	1	U	1	U	3	U	6.4	1	U	1	U	
			03/21/17	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	1.38	0.714	0.575	0.152	U
			06/28/17	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.834	0.582	0.735	0.152	U
			04/04/18	PES	Peristaltic	33.7	J	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	16.4	0.972	1.35	0.152	U
			Decommissioned March 2019																			
Off Property																						
MW-6	31.2 to 16.2	800 Aloha St Parcel	10/12/93	Retec	Unknown	150,000	—	—	9,100	6,800	2,600	7,300	—	—	—	—	—	—				
			10/26/93	Retec	Unknown	100,000	—	—	17,000	14,000	1,400	11,000	—	—	—	—	—	—				
			01/25/94	Retec	Unknown	66,000	—	—	8,800	4,600	1,500	8,100	—	—	—	—	—	—				
			04/25/94	Retec	Unknown	120,000	—	—	15,000	7,200	2,600	13,300	—	—	—	—	—	—				
			09/15/94	Retec	Unknown	56,000	—	—	15,000	2,000	1,500	7,100	—	—	—	—	—	—				
			06/20/02	Urban	Unknown	8,500	—	—	1,900	14	250	53	—	—	—	—	—	—				
(duplicate)	26.09 to 16.09	800 Aloha St Parcel	10/12/93	Retec	Unknown	75,000	—	—	20,000	22,000	3,000	15,000	—	—	—	—	—	—				
			10/26/93	Retec	Unknown	74,000	—	—	8,300	7,400	1,100	8,300	—	—	—	—	—	—				
			01/25/94	Retec	Unknown	53,000	—	—	1,600	2,700	1,400	5,100	—	—	—	—	—	—				
			04/25/94	Retec	Unknown	140,000	—	—	3,900	7,400	3,100	14,100	—	—	—	—	—	—				
			09/15/94	Retec	Unknown	66,000	—	—	3,400	2,700	1,900	7,700	—	—	—	—	—	—				
			09/15/94	Retec	Unknown	77,000	—	—	3,600	3,000	2,100	8,700	—	—	—	—	—	—				
			06/20/02	Urban	Unknown	8,400	—	—	650	37	470	150	—	—	—	—	—	—				
(dry)	28.69 to 14.19	800 Aloha St Parcel	10/26/93	Retec	Unknown	280	—	—	19	1	U	48	—	—	—	—	—	—				
			01/25/94	Retec	Unknown	230	J	—	13	0.7	J	1	U	4.5	—	—	—	—				
			01/25/94	Retec	Unknown	210	J	—	12	0.6	J	1	U	3.7	—	—	—	—				
			04/25/94	Retec	Unknown	250	U	—	2.2	1	U	1	U	1.7	—	—	—	—				
			09/15/94	Retec	Unknown	210	J	—	1	U	0.5	J	1	U	1.6	J	—	—				
			09/15/94	Retec	Unknown	250	—	—	1	U	0.5	J	1	U	1.7	J	—	—				
			06/21/02	Urban	Unknown	50	U	—	1	U	1	U	1	U	1	U	—	—				
			03/20/17	PES	Peristaltic	—	—	—	0.145	J	0.412	U	0.175	J	0.316	U	0.199	U				
			06/27/17	PES	Peristaltic	—</td																

Table 3

Groundwater Analytical Data for Shallow Zone Wells
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

Sample Location	Well Screen Elevation (ft)	Sample Area	Sample Date	Sampled By	Sampling Method	Analytical Results (micrograms per liter)											
						GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC
Screening Level						800	500	500	0.5	72	29	10,000	2.4	1	16	100	0.2
MW-9 (duplicate)	33.81 to 18.81	8th Ave North ROW	10/26/93	Retec	Unknown	210	J	—	—	9.5	1.3	1	U	2	U	—	—
			01/25/94	Retec	Unknown	250	U	—	—	5.7	1.1	1	U	2	U	—	—
			04/25/94	Retec	Unknown	250	U	—	—	0.001	U	1	U	2	U	—	—
			09/15/94	Retec	Unknown	250	U	—	—	3.5	0.6	J	1	U	2	U	—
			06/20/02	Urban	Unknown	50	U	—	—	1	U	1	U	2	U	1	U
			06/02/11	SES	Peristaltic	100	U	150	x	250	U	1	U	1	U	1	U
			09/04/12	SES	Peristaltic	—	—	—	—	0.35	U	1	U	3	U	1	U
			12/16/13	SES	Peristaltic	100	U	50	U	250	U	0.35	U	1	U	1	U
			03/20/17	PES	Peristaltic	52.8	J	—	—	0.0896	U	0.412	U	0.158	U	0.316	U
			06/20/17	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.562	U	0.158	U	0.316	U
			06/20/17	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.548	U	0.158	U	0.316	U
			04/05/18	PES	Peristaltic	32.9	J	—	—	0.0896	U	0.412	U	0.158	U	0.316	U
			01/21/19	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U
			04/26/19	PES	Peristaltic	121	J+	—	—	0.0896	U	0.412	U	0.158	U	0.316	U
										0.0896	U	0.412	U	0.158	U	0.316	U
MW-10	30.95 to 15.95	800 Aloha St Parcel	10/26/93	Retec	Unknown	250	U	—	—	1	U	1.3	U	1	U	2	U
			01/25/94	Retec	Unknown	190	J	—	—	1	U	3.2	U	1	U	2	U
			04/25/94	Retec	Unknown	250	U	—	—	1	U	2.5	U	1	U	2	U
			09/15/94	Retec	Unknown	250	U	—	—	1	U	0.9	J	1	U	2	U
			06/20/02	Urban	Unknown	50	U	—	—	1	U	1	U	1	U	1	U
MW121	26.72 to 16.72	8th Ave North ROW	12/26/13	SES	Peristaltic	100	U	200	x	250	U	0.35	U	1	U	1	U
			03/28/17	PES	Peristaltic	—	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U
			06/20/17	PES	Peristaltic	—	—	—	—	0.186	J	0.774	U	0.158	U	0.316	U
			04/05/18	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U
			01/31/19	PES	Peristaltic	38.0	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U
			04/29/19	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U
MW125	28.55 to 13.55	Valley St ROW	12/26/13	SES	Peristaltic	100	U	300	x	250	U	1.4	U	1	U	3	U
			03/22/17	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U
			06/28/17	PES	Bladder	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U
			04/06/18	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U
			01/21/19	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U
			04/23/19	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U
MW-154	27.57 to 13.55	Roy St ROW	04/30/18	PES	Bladder	32.1	J	—	—	0.0896	U	0.412	U	0.158	U	0.316	U
			01/21/19	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U
			04/24/19	PES	Bladder	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U
MW-155	24.05 to 13.55	Roy Street ROW	04/27/18	PES	Peristaltic	60.9	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U
			01/21/19	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U
			04/23/19	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U
MW-159	22.39 to 13.55	8th Ave N ROW	04/26/18	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U
			01/21/19	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U
			04/26/19	PES	Bladder	31.6	U	—	—	0.179	J	0.412	U	0.158	U	0.316	U
			04/26/19	PES	Bladder	31.6	U	—	—	0.193	J	0.412	U	0.158	U	0.316	U
(duplicate)																	

Table 3

Groundwater Analytical Data for Shallow Zone Wells
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

Sample Location	Well Screen Elevation (ft)	Sample Area	Sample Date	Sampled By	Sampling Method	Analytical Results (micrograms per liter)												
						GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC	
Screening Level						800	500	500	0.5	72	29	10,000	2.4	1	16	100	0.2	
MW-214 (duplicate) (dry)	–	Valley St ROW	03/30/17	PES	Peristaltic	–	–	–	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.153 U	0.0933 U	0.152 U	0.118 U	
			03/30/17	PES	Peristaltic	–	–	–	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.153 U	0.0933 U	0.152 U	0.118 U	
			06/21/17	PES	Peristaltic	–	–	–	–	–	–	–	–	–	–	–	–	
			04/09/18	PES	Peristaltic	–	–	–	0.0896 U	0.412 U	0.158 U	0.316 U	0.725	0.153 U	0.0933 U	0.152 U	0.118 U	
R-MW5	42.03 to 27.03	Dexter Ave North ROW	10/28/92	Roux	Unknown	93	U	86	1000 U	0.5 U	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
			01/29/09	DOF	Peristaltic	50	U	–	0.500 U	0.500 U	0.500 U	1.00 U	0.800	0.200 U	0.200 U	0.200 U	0.200 U	
			06/02/11	SES	Peristaltic	100	U	50	U	0.35 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U	
			09/05/12	SES	Peristaltic	–	–	–	0.35 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U	0.2 U	
			12/18/13	SES	Peristaltic	100	U	50	U	0.35 U	1 U	1 U	3 U	1 U	1 U	1 U	0.2 U	
			03/23/17	PES	Peristaltic	–	–	–	0.0896 U	0.412 U	0.158 U	0.316 U	0.338 J	0.186 J	0.0933 U	0.152 U	0.118 U	
			06/16/17	PES	Bladder	–	–	–	0.0896 U	0.412 U	0.158 U	0.316 U	0.257 J	0.245 J	0.0933 U	0.152 U	0.118 U	
			04/11/18	PES	Bladder	31.6	U	–	–	0.0896 U	0.412 U	0.158 U	0.316 U	0.621	0.153 U	0.0933 U	0.152 U	0.118 U
			01/03/19	PES	Peristaltic	81.5	J	–	–	0.0896 U	0.412 U	0.158 U	0.316 U	0.477 J	0.153 U	0.0933 U	0.152 U	0.118 U
			04/22/19	PES	Peristaltic	31.6	U	–	–	0.0896 U	0.428 J	0.158 U	0.316 U	0.499 J	0.155 J	0.0933 U	0.152 U	0.118 UJ
R-MW6	33.28 to 23.28	8th Ave North ROW	10/28/92	Roux	Unknown	50	U	50	U	1000 U	0.5 U	2	0.5 U	2	4,500	920	2,600	240
			11/03/92	DOF	Unknown	–	–	–	–	–	–	–	–	–	690	160	–	40 U
			01/29/09	DOF	Peristaltic	50.0	U	–	–	0.500 U	0.500 U	0.500 U	1.00 U	1.78	0.200 U	2.64	0.200 U	2.75
			05/03/10	SES	Peristaltic	–	–	–	–	–	–	–	–	–	1 U	1 U	1 U	2.8
			06/02/11	SES	Peristaltic	100	U	120	x	250	U	0.35 U	1 U	1 U	3 U	1 U	1 U	2.1
			09/05/12	SES	Peristaltic	–	–	–	–	0.35 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U	0.2 U
			03/21/17	PES	Peristaltic	42.8	J	–	–	0.0896 U	0.412 U	0.158 U	0.316 U	1.08	3.17	20.0	0.242 J	8.65
			06/20/17	PES	Peristaltic	38.5	–	–	–	0.167 J	0.619	0.158 U	0.316 U	1.19	0.878	37.3	0.445 J	43.9
			04/06/18	PES	Peristaltic	31.6	U	–	–	0.0896 U	0.412 U	0.158 U	0.316 U	1.85	2.24	19.4	0.277 J	26.9
			01/25/19	PES	Peristaltic	–	–	–	–	0.142 J	0.412 U	0.158 U	0.316 U	0.328 J	1.07	12.5	0.152 U	9.14
			04/25/19	PES	Peristaltic	31.6	U	–	–	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.370 J	11.8	0.168 J	7.16 J
SCL-MW101	–	Alley Between 8th & 9th Ave N	03/28/17	PES	Peristaltic	–	–	–	6.74	0.624 U	0.598	2.08	0.199 U	0.153 U	0.0933 U	0.152 U	0.118 U	
			06/14/17	PES	Peristaltic	–	–	–	18.6	1.68	17.1	3.50	0.199 U	0.153 U	0.0933 U	0.152 U	0.118 U	
			04/06/18	PES	Peristaltic	–	–	–	10.6	1.24	11.7	3.32	0.199 U	0.153 U	0.0933 U	0.152 U	0.118 U	
SCL-MW105	–	Alley Between 8th & 9th Ave N	03/28/17	PES	Peristaltic	–	–	–	257	16.3	26.5	33.9	0.995 U	0.765 U	0.466 U	0.760 U	0.590 U	
			06/15/17	PES	Peristaltic	–	–	–	208	14.3	109	40.8	0.199 U	0.153 U	0.0933 U	0.152 U	0.118 U	
			04/06/18	PES	Peristaltic	–	–	–	181	12.1	26.6	28.4	1.99 U	1.53 U	0.933 U	1.52 U	1.18 U	
SCS-2	–	800 Aloha St Parcel	03/20/17	PES	Peristaltic	1,660	–	–	51.8	9.54	155	181	0.199 U	0.153 U	0.0933 U	0.152 U	0.118 U	
			06/12/17	PES	Peristaltic	901	–	–	58.9	4.49	141	70.4	0.199 U	0.153 U	0.0933 U	0.152 U	0.118 U	
			04/13/18	PES	Peristaltic	–	–	–	44.3	5.18	37.3	47.7	0.199 U	0.153 U	0.0933 U	0.152 U	0.118 U	
SMW-3	–	Valley St ROW	03/30/17	PES	Peristaltic	–	–	–	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.153 U	0.0933 U	0.152 U	0.118 U	
			06/21/17	PES	Peristaltic	–	–	–	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.153 U	0.0933 U	0.152 U	0.118 U	
			04/09/18	PES	Peristaltic	–	–	–	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.153 U	0.0933 U	0.152 U	0.118 U	
Decommissioned Wells																		
R-MW4	2																	

Table 3

Groundwater Analytical Data for Shallow Zone Wells
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

Sample Location	Well Screen Elevation (ft)	Sample Area	Sample Date	Sampled By	Sampling Method	Analytical Results (micrograms per liter)													
						GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC		
					Screening Level	800	500	500	0.5	72	29	10,000	2.4	1	16	100	0.2		
MW-1	-	800 Aloha St Parcel	03/22/93 06/17/93 Decommissioned on October 12, 1993	EPJ Retec	Bailer Unknown	5,100 -	500 U -	1000 U -	10,000 20,000	270 14,000	480 840	427 6,700	-	-	-	-	-		
MW-2	-	8th Ave North ROW	03/22/93 06/17/93 Decommissioned on October 12, 1993	EPJ Retec	Bailer Unknown	650 -	500 U -	1000 U -	100 28	42 7.2	24 1 U	67 2 U	-	-	-	-	-		
MW-3	-	800 Aloha St Parcel	03/22/93 06/17/93 Decommissioned on October 12, 1993	EPJ Retec	Bailer Unknown	27,000 -	500 U -	1000 U -	1,500 4,800	3,300 21,000	690 1,900	3,500 12,300	-	-	-	-	-		
MW-4	-	800 Aloha St Parcel	03/22/93 06/17/93 Decommissioned on October 12, 1993	EPJ Retec	Bailer Unknown	940 -	500 U -	1000 U -	82 1 U	390 1 U	39 1 U	108 2 U	-	-	-	-	-		
MW-5	-	8th Ave North ROW	03/22/93 06/17/93 Decommissioned on October 12, 1993	EPJ Retec	Bailer Unknown	670 -	500 U -	1000 U -	49 1 U	140 1 U	9.8 1 U	80 2 U	-	-	-	-	-		
						Number of Analytes Measured	106	25	25	152	152	152	158	158	154	152	158		
						Number of Analytes Detected	49	16	8	66	60	35	41	97	85	105	53	89	
						Frequency of Detection	46%	64%	32%	43%	39%	23%	27%	61%	54%	68%	35%	56%	
						Maximum Detection	150,000	26,000	25,000	20,000	22,000	3,100	15,000	176,000	13,000	9,300	1,000	1,100	
						Minimum Detection	31.6	U	34.0	250 U	0.001 U	0.412 U	0.158 U	0.316 U	0.199 U	0.153 U	0.0933 U	0.152 U	0.118 U

Notes:

VOCs analyzed by EPA Methods 8015, 8020, 8021B, 8240, 8260B, or 8260C or by Purge and Trap

Gas Chromatogram/Mass Spectrometry or EPA Method 601, 8010S, 8240, 8260B, or 8260C.

* = Monitoring well was installed at a 25 degree angle from the vertical point of penetration.

(dup) = duplicate

cDCE = cis-1,2-dichloroethene

DOF = Dalton, Olmsted & Fuglevand, Inc.

DRO = diesel-range organics

GeoE = GeoEngineers, Inc.

GRO = gasoline-range organics

MTCA = Washington State Model Toxics Control Act

ORO = oil-range organics

PCE = perchloroethylene (tetrachloroethene)

Roux = Roux Associates

SES = SoundEarth Strategies, Inc.

TCE = trichloroethene

tDCE = trans-1,2-dichloroethene

VC = vinyl chloride

WAC = Washington Administrative Code

WW = Windward Environmental LLC

Laboratory and Results Notes:

Detected results shown in bold, detections above the

screening level highlighted in gray

- = Not analyzed or results not available

B = the same analyte is found in the associated blank

c = Reported as total 1,2-DCE (sum of cis,-1,2- and trans,1,2-DCE isomers)

E = Estimated value. The reported range exceeds the calibration range of the analysis

f = Analyte was detected in the associated method blank. Analyte concentration in the sample is greater than 10x the concentration found in the method blank

g = Estimated value. The reported range exceeds the calibration range of the analysis

J = the identification of the analyte is acceptable; the reported value is an estimate

qp = Hydrocarbon result partly due to individual peak(s) in quantitation range

U = not detected at or above the laboratory method detection limit (MDL)

x = The sample chromatographic pattern does not resemble the fuel standard

used for quantitation

y = The GRO result in the sample is due to a pattern of peaks that is consistent with

the chlorinated volatiles detected by the 8260C analysis

Table 4

Groundwater Analytical Data for Intermediate Water-Bearing Zone Wells
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

Sample Location	Area Location	Sample Date	Sampled By	Sampling Method	Analytical Results (micrograms per liter)																	
					GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC						
					Screening Level	800	500	500	0.5	72	29	10,000	2.4	1	16	100	0.2					
Intermediate A Water-Bearing Zone, On Property																						
G-MW1 (9.01 to 4.01) (duplicate)	The Property	07/24/01	Geo	Peristaltic	—	—	—	0.449	E	0.798	5.52	85,500	f	1,130	23.3	g	0.956	74.5	g			
		01/29/09	DOF	Peristaltic	41,300	qp	—	20.0	U	20.0	28.6	55.1	78,400	f	1,160	34.4	1.49	0.200	U			
		06/03/11	SES	Peristaltic	29,000	x	92	x	250	U	—	—	—	—	78,000	1,100	22	—	33			
		09/06/12	SES	Peristaltic	—	—	—	0.35	U	7.4	1	U	1.1	66,000	1,100	32	1.5	35				
		09/06/12	SES	Peristaltic	—	—	—	0.35	U	7.6	1	U	1.0	64,000	1,100	30	1.4	33				
		Decommissioned																				
G-MW3 (13.55 to 3.55)	The Property	07/24/01	Geo	Peristaltic	—	—	—	0.524	E	6.93	0.459	2.10	47,700	f	385	g	0.200	U	3.71	42.5	g	
		12/10/04	DOF	Bailer	—	—	—	2	U	7	2	U	2	220,000	1,200	570	6	19				
		01/29/09	DOF	Peristaltic	26,600	qp	—	—	12.5	U	12.5	U	25.0	U	64,000	f	1,580	4,050	13.9	0.200	U	
		06/02/11	SES	Peristaltic	19,000	xy	210	x	250	U	350	U	1,000	U	3,000	U	33,000	1,400	1,500	1000	U	
		09/06/12	SES	Peristaltic	—	—	—	0.35	U	1.5	1	U	3	U	31,000	1,200	1,600	5.9	290			
		Decommissioned																				
MW131 (-4.61 to -14.61)	Property	03/27/17	SES	Peristaltic	91.9	J	—	—	0.199	J	0.462	J	0.158	U	0.316	U	0.199	U	243	0.981	804	
		06/20/17	PES	Peristaltic	31.6	U	—	—	0.448	U	2.06	U	0.790	U	1.58	U	0.995	U	2.55	0.760	U	
		04/16/18	PES	Peristaltic	55.3	U	—	—	0.142	J	0.412	U	0.158	U	0.316	U	7.05	3.25	10.4	0.276	J	
		10/25/18	PES	Peristaltic	57.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.895	0.347	J	1.65	J+	
		12/12/18	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.172	J	1.2	
		1/29/19	PES	Peristaltic	43.7	J	—	—	0.182	J	0.516	J+	0.158	U	0.316	U	0.199	U	0.774	0.152	U	
		3/11/19	PES	Peristaltic	31.6	U	—	—	0.152	J	0.412	U	0.158	U	0.316	U	0.199	U	0.250	J	0.152	U
		Decommissioned March 2019																	0.118	U		
MW-149 (0.66 to -9.34) (duplicate)	Property	04/10/18	PES	Peristaltic	11,700	z	—	—	44.8	U	2.06	U	0.813	J	1.64	J	19,200	8,050	10,500	29.8	863	
		10/25/18	PES	Peristaltic	4,570	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	6,100	2,720	3,320	15.3	100	
		12/13/18	PES	Peristaltic	11,400	—	—	—	0.0896	U	0.717	—	0.158	U	0.414	J	23,300	5,470	5,150	18.2	253	
		12/13/18	PES	Peristaltic	11,400	—	—	—	0.0896	U	0.717	—	0.158	U	0.392	J	24,500	5,780	5,210	18.2	243	
		01/29/19	PES	Peristaltic	14,400	J+z	—	—	8.96	U	41.2	U	15.8	U	31.6	U	23,700	3,800	4,350	15.2	U	
		03/13/19	PES	Peristaltic	15,300	J+	—	—	0.222	J	0.862	—	0.843	—	0.490	J	2,630	2,770	30,800	129	285	
		Decommissioned March 2019																				
MW-151 (4.94 to -5.06)	Property	04/10/18	PES	Peristaltic	74.6	U	—	—	0.253	J	0.412	UJ	0.158	UJ	0.316	U	1.13	0.310	J	59.1	J-	
		10/25/18	PES	Peristaltic	99.4	U	—	—	0.167	J	0.412	U	0.158	U	0.316	U	2.28	1.38	5.80	0.346	J	
		12/14/18	PES	Peristaltic	1,040	—	—	—	0.342	J	0.44	J	0.158	U	0.316	U	1,460	155	1,690	4.56	530	
		1/31/19	PES	Peristaltic	340	J+z	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	106	40.4	466	3.52	158	
		3/12/19	PES	Peristaltic	143	—	—	—	0.159	J	0.412	U	4.88	—	0.316	U	0.981	1.36	196	1.60	24.9	
Intermediate A Water-Bearing Zone, Off Property																						
BB-5	South of Mercer St ROW	11/17/97 Decommissioned	B&V	Bailer	250	U	630	U	630	U	ND	ND	ND	ND	ND	ND	ND	1.1	ND	ND		
BB-7	Westlake Ave North ROW	11/17/97 Decommissioned	B&V	Bailer	250	U	630	U	630	U	ND	ND	ND	ND	ND	ND	ND	ND	ND			

Table 4

Groundwater Analytical Data for Intermediate Water-Bearing Zone Wells
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

Sample Location	Area Location	Sample Date	Sampled By	Sampling Method	Analytical Results (micrograms per liter)																							
					GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC												
Screening Level																												
BB-8 (13.69 to 3.69) (duplicate)	Roy St ROW	06/24/97	B&V	Bailer	200	U	500	U	1000	U	1.8	1.3	1.0	U	1.0	U	11,000	1,500	4,200	14	280							
		01/29/09	DOF	—	499	—	—	—	—	—	0.694	0.500	0.500	U	1.00	U	896	f	258	441	2.45	1.48						
		05/03/10	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	—	510	120	110	1	U	0.27						
		06/02/11	SES	Peristaltic	130	xy	50	U	250	U	0.35	U	1	U	1	U	170	59	44	1	U	0.2	U					
		09/05/12	SES	Peristaltic	—	—	—	—	—	—	0.35	U	1	U	1	U	200	41	28	1	U	0.2	U					
		12/29/13	SES	Bladder	—	—	—	—	—	—	0.35	U	1	U	1	U	200	38	24	1	U	0.2	U					
		06/17/15	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	—	170	40	37	10	U	2.0						
		03/22/17	PES	Peristaltic	—	—	—	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	30.4	4.95	3.10	0.152	U	0.118	U			
		06/14/17	PES	Peristaltic	—	—	—	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	26.0	8.57	12.6	0.155	J	0.118	U			
		04/11/18	PES	Peristaltic	40.9	U	—	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	33.7	J	6.13	J	4.64	J	0.152	U	0.118	U
		04/11/18	PES	Peristaltic	41.5	U	—	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	46.8	J	8.41	J	6.28	J	0.152	U	0.118	U
		01/23/19	PES	Peristaltic	99.6	J	—	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	133	43.1	81.5	0.402	J	0.618				
		04/23/19	PES	Peristaltic	31.6	U	—	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	48.8	9.09	7.57	0.152	U	0.118	UJ			
BB-8A	Roy St ROW	01/29/09	DOF	Peristaltic	669	—	—	—	—	—	0.500	U	0.500	U	0.500	U	1.00	U	1,290	f	285	549	2.96	3.86				
		05/03/10	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	—	—	810	180	140	1.6	0.78						
		06/02/11	SES	Peristaltic	380	xy	50	U	250	U	3.5	U	10	U	10	U	30	U	710	170	170	10	U	2	U			
BB-12	9th Ave North ROW	05/19/98	B&V	Bailer	250	U	630	U	630	U	ND	—	ND	—	ND	—	ND	—	ND	1	U	ND	540	380				
		05/02/10	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	U	1	U	1	U	0.2	U		
BB-12A	9th Ave North ROW	05/02/10	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	U	1	U	1	U	0.2	U		
GEI-MW-1	739 9th Ave N	09/06/14	Geo	Peristaltic	50.0	U	50.0	U	100	U	1.00	U	1.00	U	—	—	1.00	U	0.250	0.240	1.00	U	0.500	U	0.200	U		
GEI-MW-2	739 9th Ave N	09/06/14	Geo	Peristaltic	28.9	—	50.0	U	100	U	14.1	—	4.44	—	—	—	1.00	U	1.00	U	0.410	1.00	U	0.500	U	1.34		
GEI-MW-3	739 9th Ave N	09/06/14	Geo	Peristaltic	50.0	U	50.0	U	100	U	1.00	U	9.03	—	—	—	1.00	U	1.00	U	0.610	1.00	U	0.500	U	3.14		
GEI-1 (1.15 to -8.85)	Block 37	03/24/17	PES	Peristaltic	—	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.0933	U	0.152	U	0.118	U		
		06/13/17	PES	Bladder	—	—	—	—	0.0896	U	0.412	U	0.244	J	0.316	U	0.199	U	0.153	U	0.0933	U	0.152	U	0.118	U		
		04/22/19	PES	Peristaltic	—	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.0933	U	0.152	U	0.118	UJ		

Table 4

Groundwater Analytical Data for Intermediate Water-Bearing Zone Wells
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

Sample Location	Area Location	Sample Date	Sampled By	Sampling Method	Analytical Results (micrograms per liter)																		
					GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC							
Screening Level																							
MW107 (8.81 to -1.18)	8th Ave North ROW (duplicate)	12/21/12	SES	Peristaltic	240,000	xy	190	x	250	U	3.5	U	10	U	10	U	30	U	47,000	2,800	5,100	41	200
		12/21/12	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	—	—	—	50,000	3,000	5,200	44	270
		12/16/13	SES	Peristaltic	—	—	—	—	0.37	U	1.8	—	—	1	U	3.3	—	32,000	2,400	4,000	34	76	
		06/17/15	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	—	—	1,900	5,000	5,000	100	U 40	
		10/20/15	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	—	—	2,300	5,100	3,600	60	27	
		11/10/15	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	—	—	620	3,800	4,400	54	31	
		12/11/15	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	—	—	1,200	4,200	4,200	57	22	
		01/08/16	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	—	—	1,000	3,600	3,900	50	20	
		02/01/16	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	—	—	61	220	10,000	33	73	
		03/27/17	PES	Peristaltic	—	—	—	—	0.204	J	0.690	J	0.158	U	0.316	U	0.224	J	0.370	J	6.82	14.0	34.5
		06/19/17	PES	Peristaltic	—	—	—	—	0.238	J	0.700	—	0.158	U	0.316	U	0.199	U	0.290	J	7.29	12.6	15.0
		04/09/18	PES	Peristaltic	—	—	—	—	0.193	J	0.412	U	0.158	U	0.316	U	0.879	J-	0.581	J-	72.1	10.5	123
		01/30/19	PES	Peristaltic	663	J+z	—	—	0.215	J	0.715	—	0.158	U	0.316	U	0.199	U	41.1	—	1,130	14.4	474
		05/01/19	PES	Peristaltic	481	J+	—	—	0.188	J	0.412	U	0.158	U	0.316	U	0.199	U	99.9	—	1,250	14.1	374
MW108 (-7.22 to -17.22)	Alley Between 8th and 9th Ave North (duplicate)	12/21/12	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	—	—	3.4	1.8	400	2.1	210 pr	
		12/17/13	SES	Peristaltic	—	—	—	—	1.9	—	1	U	1	U	3	U	3.8	4.6	360	3.6	150		
		06/17/15	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	—	4.0	11	370	3.5	260		
		10/20/15	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	—	3.0	6.4	220	1.8	140		
		02/02/16	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	—	15	7.9	290	1.8	180		
		03/28/17	PES	Peristaltic	—	—	—	—	1.59	—	0.479	U	0.158	U	0.316	U	73.1	12.5	278	0.899	52.3		
		06/27/17	PES	Bladder	—	—	—	—	1.26	—	0.479	U	0.158	UJ	0.316	U	194	22.1	165	0.748	52.8		
		04/06/18	PES	Peristaltic	—	—	—	—	4.00	—	0.599	—	0.158	UJ	0.316	U	1,970	284	1,030	7.13	217		
		04/06/18	PES	Peristaltic	—	—	—	—	3.83	—	0.597	—	0.158	UJ	0.316	U	1,980	287	1,020	7.91	231		
		01/22/19	PES	Peristaltic	—	—	—	—	1.67	—	0.562	—	0.158	U	0.316	U	4,190	587	1,180	6.03	90.8		
		04/29/19	PES	Peristaltic	—	—	—	—	3.20	—	0.412	U	0.158	U	0.316	U	419	171	970	3.22	125 J		
MW109 (-0.03 to -10.03)	Alley Between 8th and 9th Ave North	12/21/12	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	91	64	18	1	U	1.5		
		12/17/13	SES	Peristaltic	—	—	—	0.35	U	1	U	1	U	3	U	4.0	18	310	1	U	27		
		06/17/15	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	370	890	520	1.2		26		
		10/20/15	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	230	790	400	20	U	22		
		02/02/16	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	34	330	270	1	U	19		
		03/29/17	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.198	J	12.6	0.152	U	3.49
		06/27/17	PES	Bladder	—	—	—	0.0896	U	0.412	U	0.158	UJ	0.316	U	9.69	J	1.17	163	1.17	6.06		
		04/06/18	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	1.99	UJ	210	629	3.34	42.2		
		01/23/19	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.995	U	43.8	403	2.08	36.8		
		04/29/19	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	4.78	0.152	U	3.06 J

Table 4

Groundwater Analytical Data for Intermediate Water-Bearing Zone Wells
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

Sample Location	Area Location	Sample Date	Sampled By	Sampling Method	Analytical Results (micrograms per liter)													
					GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC		
			Screening Level	800	500	500	0.5	72	29	10,000	2.4	1	16	100	0.2			
MW110 (4.67 to -5.33)	Alley Between 8th and 9th Ave North (duplicate)	12/21/12	SES	Bladder	—	—	—	—	—	—	—	1,100	220	470	3.0	33		
		12/19/13	SES	Peristaltic	—	—	—	0.35 U	1 U	1 U	3 U	930	240	840	3.9	31		
		04/22/15	SES	Peristaltic	—	—	—	—	—	—	—	1,000	210	340	2.4	1		
		06/17/15	SES	Peristaltic	—	—	—	—	—	—	—	1,000	200	470	10 U	12		
		10/20/15	SES	Peristaltic	—	—	—	—	—	—	—	890	180	380	2.2	13		
		02/01/16	SES	Peristaltic	—	—	—	—	—	—	—	1,300	290	460	3.0	1.1		
		03/23/17	PES	Peristaltic	—	—	—	0.330 J	0.412 U	0.158 U	0.316 U	1,070	389	644	4.72	1.45		
		06/27/17	PES	Bladder	—	—	—	0.0896 U	0.412 U	0.158 UJ	0.316 U	259	176	1,120	2.66	152		
		04/09/18	PES	Bladder	—	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	375 J-	253 J-	675 J-	3.72	3.54		
		01/23/19	PES	Peristaltic	—	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	1,260	490	673	5.83	1.39		
		01/23/19	PES	Peristaltic	—	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	1,120	499	718	6.49	1.51		
		04/26/19	PES	Bladder	—	—	—	0.291 J	0.412 U	0.158 U	0.316 U	1,500	613	710	5.59	0.900 J		
MW114 (10.84 to 0.84)	SDOT property south of Roy Street	12/21/12	SES	Peristaltic	—	—	—	—	—	—	—	1,400	290	260	1 U	14		
		12/18/13	SES	Peristaltic	—	—	—	17 U	50 U	50 U	150 U	8,400	1,300	640	50 U	22		
MW115 (-0.86 to -10.86)	9th Ave North ROW	12/13/12	SES	Peristaltic	—	—	—	—	—	—	—	15	1.1	3.0	1 U	2.6		
		12/21/12	SES	Peristaltic	—	—	—	—	—	—	—	1 U	3.0	38	1 U	16		
		12/19/13	SES	Peristaltic	—	—	—	0.35 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U	0.75		
		04/21/15	SES	Peristaltic	—	—	—	—	—	—	—	1 U	17	170	1 U	20		
		06/25/15	SES	Peristaltic	—	—	—	—	—	—	—	1 U	1 U	1 U	1 U	6.2		
		10/27/15	SES	Peristaltic	—	—	—	—	—	—	—	1 U	1 U	1 U	1 U	0.31		
		02/03/16	SES	Peristaltic	—	—	—	—	—	—	—	1 U	1 U	1 U	1 U	2.3		
		03/22/17	PES	Peristaltic	—	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.153 U	0.643	0.152 U	15.7		
		06/22/17	PES	Bladder	—	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.153 U	0.523	0.152 U	8.45		
		04/11/18	PES	Peristaltic	—	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.153 U	0.272 J	0.152 U	5.81		
		01/30/19	PES	Peristaltic	—	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.153 U	0.316 J	0.152 U	12.4		
MW116 (-3.64 to -13.64)	9th Ave North ROW	12/07/12	SES	Peristaltic	—	—	—	—	—	—	—	6.8	1 U	1 U	1 U	0.2 U		
		12/21/12	SES	Peristaltic	—	—	—	—	—	—	—	2.7	1 U	1 U	1 U	0.2 U		
		12/19/13	SES	Peristaltic	—	—	—	0.35 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U	0.2 U		
		06/25/15	SES	Peristaltic	—	—	—	—	—	—	—	1 U	1 U	1 U	1 U	0.2 U		
		10/27/15	SES	Perstaltic	—	—	—	—	—	—	—	1 U	1 U	1 U	1 U	0.2 U		
		02/03/16	SES	Peristaltic	—	—	—	—	—	—	—	1 U	1 U	1 U	1 U	0.2 U		
		03/21/17	PES	Peristaltic	—	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.153 U	0.0933 U	0.152 U	0.118 U		
		06/16/17	PES	Bladder	—	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.303 J	0.0933 U	0.152 U	0.118 U		
		04/11/18	PES	Peristaltic	—	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.153 U	0.0933 U	0.152 U	0.118 U		
		01/30/19	PES	Bladder	—	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.153 U	0.655	0.152 U	0.118 U		
MW117 (16.90 to 1.90)	Dexter Ave North ROW	02/08/13	SES	Peristaltic	—	—	—	—	—	—	—	1 U	1 U	1 U	1 U	0.2 U		
		12/18/13	SES	Peristaltic	100 U	50 U	250 U	0.35 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U	0.2 U		
		Destroyed																

Table 4

Groundwater Analytical Data for Intermediate Water-Bearing Zone Wells
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

Sample Location	Area Location	Sample Date	Sampled By	Sampling Method	Analytical Results (micrograms per liter)															
					GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC				
Screening Level					800	500	500	0.5	72	29	10,000	2.4	1	16	100	0.2				
MW118 (12.91 to 2.91)	Mercer St ROW	03/25/13	SES	Peristaltic	—	—	—	—	—	—	—	1	U	1	U	0.2	U			
		12/18/13	SES	Peristaltic	100	U	50	U	250	U	0.35	U	1	U	1	U	0.2	U		
MW119 (2.35 to -7.65)	9th Ave North ROW	03/25/13	SES	Peristaltic	—	—	—	—	—	—	—	1	U	1	U	0.2	U			
		12/19/13	SES	Peristaltic	—	—	—	0.35	U	1	U	1	U	1	U	1	U			
		04/21/15	SES	Peristaltic	—	—	—	—	—	—	—	—	34	42	50	1	U	3.1		
		06/17/15	SES	Peristaltic	—	—	—	—	—	—	—	—	4.9	7.1	52	1	U	2.7		
		10/20/15	SES	Peristaltic	—	—	—	—	—	—	—	—	15	22	74	1	U	0.45		
		02/02/16	SES	Peristaltic	—	—	—	—	—	—	—	—	7.3	24	100	1	U	0.45		
		03/29/17	PES	Peristaltic	—	—	—	0.139	U	0.412	U	0.158	U	0.316	U	5.47	10.7	42.9	0.334 J 0.272 J	
		06/28/17	PES	Bladder	—	—	—	0.0896	U	0.726	U	0.158	U	0.562	J	19.0	12.4	5.99	0.167 J 0.118 U	
		04/05/18	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	2.14	3.02	18.3	0.203 J 0.118 U	
		01/21/19	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	1.24	0.153 U	0.0933 U	0.152 U 0.118 U	
		04/29/19	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.224	J	1.12	10.9 0.161 J 0.118 UJ	
MW120 (0 to -10)	8th Ave North ROW	12/19/13	SES	Peristaltic	100	U	50	U	440	x	0.35	U	1	U	1	U	2.8	2.3		
		06/16/15	SES	Peristaltic	—	—	—	—	—	—	—	—	—	1	U	1	U	4.3		
		10/20/15	SES	Peristaltic	—	—	—	—	—	—	—	—	—	1	U	1.1	5.2	1	U 0.94	
		02/01/16	SES	Peristaltic	—	—	—	—	—	—	—	—	—	1.3	1.6	6.7	1	U	1.1	
		03/28/17	PES	Peristaltic	—	—	—	0.0896	U	0.458	U	0.158	U	0.316	U	13.9	5.81	18.4	0.152 U 0.871	
		06/28/17	PES	Bladder	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	18.0	6.97	16.0	0.152 U 0.988	
		04/09/18	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	0.153 U	0.811	0.152 U 0.118 U
		01/24/19	PES	Peristaltic	105	J+z	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	125	34.3	60.5	0.194 J 1.64
		05/03/19	PES	Peristaltic	111	J+	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	155	46.9	87.2	0.258 J 1.28
		05/03/19	PES	Peristaltic	138	J+	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	182	51.1	89.0	0.227 J 1.30
MW127 (-0.96 to -10.96)	8th Ave North ROW	01/03/14	SES	Peristaltic	—	—	—	0.35	U	1	U	1	U	3	U	1	U	19	1 U 9.6	
		01/13/14	SES	Peristaltic	—	—	—	0.35	U	1	U	1	U	3	U	1	U	4.3	1 U 0.2 U	
		Decommissioned														1.1	5.2	1 U 0.94		
MW-142 (2.44 to -7.56)	8th Ave North ROW (duplicate)	04/27/18	PES	Peristaltic	49.3	U	—	—	0.514	J	0.412	U	0.158	U	0.316	U	0.523	1.40	46.1	0.474 J 17.2
		01/28/19	PES	Peristaltic	31.6	U	—	—	0.442	J	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U 5.62
		01/28/19	PES	Peristaltic	31.6	U	—	—	0.410	J	0.412	U	0.158	U	0.316	U	0.199	U	0.208	J 5.67
		04/24/19	PES	Peristaltic	31.6	U	—	—	0.361	J	0.412	U	0.158	U	0.316	U	0.199	U	0.156	J 5.67
MW-144 (3.87 to -6.13)	8th Ave North ROW	04/27/18	PES	Peristaltic	364	J	—	—	0.0896	U	1.40	U	0.158	U	0.316	U	1.86	3.31	662	4.65 888
		01/28/19	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.251	J 10.4
		04/23/19	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.158	J 4.09
MW-146 (12.94 to 2.94)	8th Ave North ROW	04/30/18	PES	Bladder	597	J+z	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	3.56	48.4	900	6.12 2,100
		01/22/19	PES	Peristaltic	509	J+z	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	2.29	21.6	1,080	7.25 1,370

Table 4

Groundwater Analytical Data for Intermediate Water-Bearing Zone Wells
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

Sample Location	Area Location	Sample Date	Sampled By	Sampling Method	Analytical Results (micrograms per liter)													
					GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC		
Screening Level																		
MW-156 (2.04 to -7.96)	8th Ave North ROW (duplicate)	04/26/18	PES	Peristaltic	1,690 z	—	—	0.283 J	0.479 J	0.158 U	0.316 U	9.95 U	581	2,850	9.97	407		
		01/24/19	PES	Peristaltic	1,480 J+z	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	1,720	723	2,050	11.5	11.8 U		
		04/24/19	PES	Peristaltic	2,570 J+	—	—	0.339 J	0.412 U	0.158 U	0.316 U	1,430	727	1,770	9.41	3.21 J		
		04/24/19	PES	Peristaltic	2,600 J+	—	—	0.33 J	0.412 U	0.158 U	0.316 U	1,440	717	1,760	9.31	3.34 J		
Intermediate B Water-Bearing Zone, On Property																		
MW130 (-30.88 to -40.88)	Property (duplicate)	03/03/16	SES	Bladder	—	—	—	—	—	—	—	6,200	430	300	1 U	38		
		03/29/17	PES	Bladder	8,890 xy	—	—	1.79 U	8.24 U	3.16 U	6.32 U	721	830	7,880	39.3	186		
		06/30/17	PES	Bladder	10,300 Jz	—	—	0.896 U	4.12 U	1.58 U	3.16 U	6,760 J	4,020	20,100	55.6	597		
		06/30/17	PES	Bladder	15,000 Jz	—	—	0.896 U	4.12 U	1.58 U	3.16 U	11,100 J	5,310	21,300	57.3	549		
		05/21/18	PES	Bladder	19,700 z	—	—	0.403 J	1.37	0.227 J	1.12 J	13,500	7,400	29,500	114	1,650		
		12/17/18	PES	Bladder	16,400	—	—	4.48 U	20.6 U	7.90 U	15.8 U	9,650	3,220	26,400	83.5	1,420		
		01/31/19	PES	Bladder	22,400 J+z	—	—	0.377 J	1.51 J+	0.279 J	1.22 J	23,700	4,640	27,700	107	1,740		
Decommissioned March 2019																		
MW-132 (-29.90 to -39.90)	Property	09/25/17	PES	Bladder	95.9 U	—	—	0.448 U	2.06 U	0.790 U	1.58 U	0.995 U	1.95 J	196	0.760 U	1.76 J		
		04/26/18	PES	Bladder	2,630 z	—	—	0.422 J	0.412 U	0.158 U	0.32 U	2,830	840	3,300	16.3	10.2		
		10/25/18	PES	Peristaltic	48.3 U	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	3.53	0.750	12.1	0.254 J	158		
		12/13/18	PES	Peristaltic	31.6 U	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.995 U	0.765 U	39.8	0.497 J	199		
		1/31/19	PES	Peristaltic	104 J+z	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	22.9	1.95	108	0.506	269		
		3/11/19	PES	Peristaltic	31.6 U	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	7.03	1.22	22.8	0.302 J	57.3		
Decommissioned March 2019																		
MW-134 (-38.55 to -48.55)	Property	09/22/17	PES	Bladder	—	—	—	0.448 U	2.06 U	0.790 U	1.58 U	0.995 U	0.765 U	86.2	0.760 U	229		
		04/16/18	PES	Peristaltic	42.1 U	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	1.49	0.153 U	0.287 J	0.152 U	68.6		
		10/25/18	PES	Bladder	38.2 U	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.153 U	0.0933 U	0.152 U	20.9		
		12/12/18	PES	Bladder	31.6 U	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.153 U	0.259 J	0.152 U	21.9		
		01/28/19	PES	Bladder	31.6 U	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.153 U	0.609	0.152 U	32.4		
		03/12/19	PES	Bladder	31.6 U	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.153 U	0.550	0.152 U	17.7		
Decommissioned March 2019																		
MW-135 (-30.89 to -40.89)	Property	09/25/17	PES	Bladder	10,900 z	—	—	8.96 U	41.2 U	15.8 U	31.6 U	10,400	2,480	16,100	15.2 U	82.0 J		
		04/25/18	PES	Peristaltic	347,000 z	—	—	0.434 J	3.09	0.484 J	2.61	75,800	7,890	27,700	30.7	989		
		10/25/18	PES	Peristaltic	31,800	—	—	2.24 U	10.3 U	3.95 U	7.90 U	45,900	8,330	40,400	54.4	1,170		
		12/13/18	PES	Peristaltic	80,000	—	—	4.48 U	20.6 U	7.90 U	15.8 U	97,200	11,000	42,100	66.6	1,380		
		01/31/19	PES	Bladder	42,700 J+z	—	—	0.695 J	5.12 J+	0.571 J	3.43 J	56,500	9,530	37,400	68.6	1,090		
		03/13/19	PES	Bladder	32,700 J+	—	—	0.496 J	2.43	0.329 J	1.90	57,300	8,150	37,200	74.3	706		
Decommissioned March 2019																		

Table 4

Groundwater Analytical Data for Intermediate Water-Bearing Zone Wells
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

Sample Location	Area Location	Sample Date	Sampled By	Sampling Method	Analytical Results (micrograms per liter)																					
					GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC										
Screening Level																										
MW-136 (-32.73 to -42.73)	Property	09/25/17	PES	Bladder	55.2	U	—	—	0.332	J	0.412	U	0.158	U	0.316	U	15.4	10.7	18.7	0.152	U	0.118	U			
		04/16/18	PES	Submersible	256		—	—	0.260	J	1.83		4.83		25.9		2.59	0.365	J	4.73	0.152	U	8.57			
		10/29/18	PES	Bladder	31.9	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.177	J	1.44	0.152	U	0.236	J	
		12/13/18	PES	Bladder	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.237	J	0.962	0.152	U	0.118	U	
		02/01/19	PES	Bladder	44.5	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	1.26	0.293	U	0.851	0.152	U	0.186	J		
		03/12/19	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.206	J	0.153	U	0.330	J	0.152	U	0.118	U
		03/12/19	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.262	J	0.153	U	0.378	J	0.152	U	0.118	U
		Decommissioned March 2019																								
MW-139 (-30.19 to -40.19)	Property	09/25/17	PES	Bladder	62.2	U	—	—	0.0896	U	0.516		0.158	U	0.316	U	0.199	U	0.153	U	1.42	0.152	U	0.246	J	
		04/25/18	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.175	J	0.152	U	0.118	U
		10/25/18	PES	Peristaltic	47.4	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	1.29	0.282	J	0.454	U	0.152	U	0.118	U	
		12/12/18	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.216	J	0.152	U	0.118	U
		01/28/19	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.0933	U	0.152	U	0.118	U
		03/11/19	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.187	J	0.152	U	5.77	
		Decommissioned March 2019																								
MW-150 (-13.25 to -23.25)	Property	04/10/18	PES	Peristaltic	7,040	z	—	—	22.4	U	1.63		39.5	U	79.0	U	2,500	3,200	9,710	21.1	766					
		10/25/18	PES	Peristaltic	14,600		—	—	0.413	J	2.53		0.226	J	1.13	J	15,200	8,800	17,700	49.7	1,430					
		12/12/18	PES	Peristaltic	17,500		—	—	0.429	J	1.04		0.158	U	0.316	U	75.6	533	32,800	242	2,040					
		01/29/19	PES	Peristaltic	11,900	J+z	—	—	8.96	U	41.2	U	15.8	U	31.6	U	303	548	18,100	36.7	J	1,370				
		03/13/19	PES	Peristaltic	7,540	J+	—	—	0.165	J	0.412	U	0.185	J	0.316	U	36.0	262	15,000	50.5	479					
		Decommissioned March 2019																								
MW-152 (-10.15 to -20.15)	Property	04/10/18	PES	Peristaltic	40,600	z	—	—	224	U	8.24	U	3.27	J	790	U	67,300	6,550	35,300	42.1	3,660					
		10/26/18	PES	Peristaltic	36,700		—	—	4.48	U	20.6	U	7.90	U	15.8	U	1,960	3,150	73,000	109	4,510					
		12/14/18	PES	Peristaltic	47,300		—	—	2.24	U	10.3	U	3.95	U	7.90	U	23,600	J+	6,870	J+	77,100	J+	134	J+	7,830	J+
		01/31/19	PES	Peristaltic	44,300	J+z	—	—	0.416	J	2.61	J+	0.342	J	2.10		38,300	3,920	58,400	101	9,600					
		03/12/19	PES	Peristaltic	55,900	J+	—	—	2.24	U	10.3	U	3.95	U	7.90	U	398	18,700	127,000	781	11,000					
		Decommissioned March 2019																								
W-MW-03 (-30.77 to -40.77)	Property	02/03/12	WW	Bladder	—		—	—	20	U	20	U	20	U	60	U	5,300	220	160	20	U	20	U			
		09/06/12	SES	Peristaltic	—		—	—	0.35	U	1	U	1	U	3	U	13	2.6	20	1	U	120				
W-MW-04* (-32.47 to -41.47)	Property	02/03/12	WW	Bladder	—		—	—	20	U	20	U	20	U	60	U	5,400	160	54	20	U	20	U			
		09/06/12	SES	Peristaltic	—		—	—	0.35	U	1	U	1	U	3	U	460	440	1,900	4.0	630					
Intermediate B Water-Bearing Zone, Off Property																										
BB-10	Dexter Ave North ROW	11/13/97	B&V	Bailer	250	U	630	U	630	U	ND		ND		ND		ND		ND		ND		ND			
BB-13	Westlake Ave North ROW	1998 05																								

Table 4

Groundwater Analytical Data for Intermediate Water-Bearing Zone Wells
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

Sample Location	Area Location	Sample Date	Sampled By	Sampling Method	Analytical Results (micrograms per liter)																					
					GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC										
Screening Level					800	500	500	0.5	72	29	10,000	2.4	1	16	100	0.2										
MW111 (-33.52 to -43.52)	Alley Between 8th and 9th Ave North	12/21/12	SES	Bladder	—	—	—	—	—	—	—	110	32	37	1	U	1.8									
		12/17/13	SES	Peristaltic	—	—	—	0.35	U	1	U	1	U	1	U	4.7	1	U	17							
		04/22/15	SES	Peristaltic	—	—	—	—	—	—	—	—	1	U	1	U	1.7	1	U	18						
		06/17/15	SES	Peristaltic	—	—	—	—	—	—	—	—	1	U	1	U	1.5	1	U	20						
		10/20/15	SES	Peristaltic	—	—	—	—	—	—	—	—	1	U	1	U	1	U	8.2							
		02/02/16	SES	Peristaltic	—	—	—	—	—	—	—	—	1	U	1	U	2.3	1	U	5.8						
		03/23/17	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	1.40	0.152	U	5.22			
		06/14/17	PES	Bladder	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.408	J	1.24	0.152	U	3.22			
		04/06/18	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.618	U	0.153	U	16.5	0.152	U	121			
		01/23/19	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.492	J	0.176	J	1.70	0.152	U	37.6			
		04/22/19	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	3.18	0.152	U	19.5 J			
MW112 (-17.51 to -27.51)	Dexter Ave North ROW	12/21/12	SES	Bladder	—	—	—	—	—	—	—	1	U	1	U	1	U	0.2	U							
		12/26/13	SES	Bladder	—	—	—	0.35	U	1	U	1	U	3	U	1	U	1	U	0.2	U					
		03/22/17	PES	Bladder	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.0933	U	0.152	U	0.118	U	
		06/16/17	PES	Bladder	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.0933	U	0.152	U	0.118	U	
		04/12/18	PES	Bladder	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.0933	U	0.152	U	0.118	U
		12/21/18	PES	Bladder	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.0933	U	0.152	U	0.118	U
		04/22/19	PES	Bladder	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.0933	U	0.152	U	0.118	UJ
MW126 (-54.06 to -64.06)	Alley Between 8th and 9th Ave North	01/03/14	SES	Peristaltic	—	—	—	0.35	U	1	U	1	U	3	U	1	U	1	U	1	U	0.2	U			
		03/28/17	PES	Peristaltic	—	—	—	0.148	J	0.563	U	0.158	U	0.316	U	0.199	U	0.153	U	0.283	J	0.152	U	0.118	U	
		06/15/17	PES	Bladder	—	—	—	0.0896	U	0.412	U	0.179	J	0.316	U	0.199	U	0.153	U	0.0933	U	0.152	U	0.118	U	
		04/06/18	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.0933	U	0.152	U	0.118	U	
		01/22/19	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.0933	U	0.152	U	0.118	U	
		04/29/19	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.0933	U	0.152	U	0.118	UJ	
MW-143 (-27.67 to -37.57)	8th Ave North ROW	04/30/18	PES	Peristaltic	154	—	—	0.244	J	0.797	—	0.212	J	1.08	J	0.199	U	0.153	U	129	0.512	193				
		01/29/19	PES	Bladder	31.6	U	—	—	0.141	J	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.241	J	0.152	U	0.118	U
		04/24/19	PES	Peristaltic	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.0933	U	0.152	U	0.118	UJ
MW-145 (-26.14 to -36.14)	8th Ave North ROW	04/27/18	PES	Bladder	52.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.212	J	2.29	0.152	U	3.88		
		01/29/19	PES	Bladder	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.316	J	0.152	U	0.335	J
		04/26/19	PES	Bladder	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.0933	U	0.152	U	0.392	J
MW-147 (-17.64 to -27.64)	Roy St ROW	05/01/18	PES	Bladder	484	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	19.8	—	83.4	—	399	2.09	1,150				
		01/22/19	PES	Bladder	663	J	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	98.2	—	179	—	1,230	2.88	738			
		04/23/19	PES	Bladder	139	J+	—	—	0.0896	U	0.412	U	0.158	U	0.316	UJ	0.199	U	5.13	—	322	1.47	499			
MW-148 (-25.73 to -35.73)	Roy St ROW (duplicate)</																									

Table 4

Groundwater Analytical Data for Intermediate Water-Bearing Zone Wells
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

Sample Location	Area Location	Sample Date	Sampled By	Sampling Method	Analytical Results (micrograms per liter)											
					GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC
Screening Level					800	500	500	0.5	72	29	10,000	2.4	1	16	100	0.2
MW-157 (-28.29 to -38.19)	8th Ave North ROW	04/26/18	PES	Peristaltic	65.7 J	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.950	0.240 J	10.4	0.246 J	104
		01/24/19	PES	Peristaltic	1,870 J+z	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	1.65	4,250	14.2	674
		04/24/19	PES	Peristaltic	3,210 J+	—	—	0.254 J	0.412 U	0.158 U	0.316 U	9.95 U	8.52 J	3,550	15.9	622
PW-1	North Valley St ROW	1997 (8 hour)	B&V	Bailer	250 U	630 U	630 U	ND	ND	ND	ND	1.0	ND	ND	ND	ND
		1997 (Final)	B&V	Bailer	250 U	630 U	630 U	ND	ND	ND	ND	ND	ND	ND	ND	ND
		Decommissioned														
W-MW-01 (-25.12 to -35.12)	8th Ave North ROW	02/02/12	WW	Bladder	—	—	—	20 U	0.1 J	0.2 U	0.6 U	46	3.9	11	0.2 U	0.5
		09/06/12	SES	Peristaltic	—	—	—	0.35 U	1.7	1 U	3 U	1 U	1 U	2.0	1 U	2.8
		06/17/15	SES	Peristaltic	—	—	—	—	—	—	—	1 U	1 U	1 U	1 U	0.46
		10/20/15	SES	Peristaltic	—	—	—	—	—	—	—	1 U	1 U	1 U	1 U	0.88
		01/08/16	SES	Peristaltic	—	—	—	—	—	—	—	1 U	1 U	1 U	1 U	2.5
		02/01/16	SES	Peristaltic	—	—	—	—	—	—	—	1 U	1 U	1 U	1 U	2.8
		03/30/17	PES	Peristaltic	—	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.330 J	0.203 J	0.491 J	0.152 U	1.83 J
		06/19/17	PES	Bladder	—	—	—	0.158 J	0.931	0.158 U	0.316 U	0.199 U	0.153 U	0.320 J	0.152 U	1.09
		04/13/18	PES	Bladder	37.6 U	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	5.33	1.68	1.31	0.152 U	8.79
		10/29/18	PES	Bladder	31.6 U	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.22 J	0.696	0.629	0.152 U	3.9
		12/13/18	PES	Bladder	31.6 U	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	1.77	0.538	0.152 U	3.86
		01/25/19	PES	Bladder	31.6 U	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.587	0.459 J	0.152 U	5.46
		03/11/19	PES	Bladder	31.6 U	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.520	0.301 J	0.396 J	0.152 U	7.24
		04/25/19	PES	Bladder	31.6 U	—	—	0.0896 U	0.412 U	0.158 U	0.316 U	0.199 U	0.373 J	0.572	0.152 U	6.61 J

Table 4

Groundwater Analytical Data for Intermediate Water-Bearing Zone Wells
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

Sample Location	Area Location	Sample Date	Sampled By	Sampling Method	Analytical Results (micrograms per liter)																			
					GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC								
Screening Level					800	500	500	0.5	72	29	10,000	2.4	1	16	100	0.2								
W-MW-02 (-26.54 to -36.54)	8th Ave North ROW	02/03/12	WW	Bladder	—	—	—	20	U	20	U	60	U	6,900	1,700	2,000	20	U	120					
		08/13/12	SES	Peristaltic	—	—	—	—	—	—	—	—	—	3,000	1,300	2,200	4.1	66						
		09/05/12	SES	Peristaltic	—	—	—	0.35	U	1.4	—	1	U	2,600	1,300	2,800	5.0	69						
		01/03/14	SES	Peristaltic	—	—	—	0.35	U	1	U	3	U	490	1,200	4,400	7.3	67						
		06/17/15	SES	Peristaltic	—	—	—	—	—	—	—	—	—	10	U	10	U	13,000	95	2,400				
		10/20/15	SES	Peristaltic	—	—	—	—	—	—	—	—	5	Uht	5	Uht	12,000	ht	97	ht				
		11/10/15	SES	Peristaltic	—	—	—	—	—	—	—	—	1	U	3.4	480	3.6	110						
		12/11/15	SES	Peristaltic	—	—	—	—	—	—	—	—	1	U	4.9	900	6.2	2,900						
		01/08/16	SES	Peristaltic	—	—	—	—	—	—	—	—	1	U	3.1	750	26	7,500						
		02/01/16	SES	Peristaltic	—	—	—	—	—	—	—	—	1	U	4.6	2,900	35	2,800						
		03/27/17	PES	Peristaltic	—	—	—	0.270	J	0.961	J	0.158	U	0.316	U	0.199	U	0.259	J	33.0	2.16	36.4		
		06/19/17	PES	Bladder	—	—	—	0.307	J	0.970	—	0.158	U	0.316	U	0.199	U	0.153	U	18.2	0.746	25.6		
		06/12/18	PES	Bladder	32	U	—	0.0896	U	0.829	—	0.158	U	0.316	U	0.199	U	0.153	U	4.72	0.279	J	4.95	
		10/26/18	PES	Peristaltic	90.2	UJ	—	0.0896	U	0.641	—	0.158	U	0.316	U	0.199	U	0.153	U	2.01	0.410	J	1.41	
		10/26/18	PES	Peristaltic	246	J+	—	0.0896	U	0.587	—	0.158	U	0.316	U	0.199	U	0.153	U	2.11	J+	0.435	J	1.8
		12/12/18	PES	Peristaltic	158	UJ	—	0.0896	U	1.05	—	0.158	U	0.316	U	0.199	U	0.153	U	1.80	0.463	J	2.30	
		01/25/19	PES	Peristaltic	37.4	J	—	0.133	J	2.09	—	0.158	U	0.316	U	0.199	U	0.153	U	1.83	0.263	J	2.01	
		03/11/19	PES	Peristaltic	31.6	U	—	0.0896	U	1.12	—	0.158	U	0.316	U	0.199	U	0.153	U	2.41	0.316	J	2.43	
		04/23/19	PES	Peristaltic	429	J+	—	0.0896	U	0.56	—	0.158	U	0.316	U	0.199	U	40.1	672	2.35	81.0	J		
					Number of Analytes Measured	135	20	20	219	219	216	219	285	285	285	284	285							
					Number of Analytes Detected	36	0	0	47	42	16	13	155	155	180	226	124	217						
					Frequency of Detection	27%	0%	0%	21%	19%	7%	6%	54%	63%	79%	44%	76%							
					Maximum Detection	80,000	—	—	14.1	17.6	E	28.6	55.1	220,000	18,700	127,000	781	11,000						
					Minimum Detection	28.9	50	U	100	U	0.0896	U	0.1	J	0.158	U	0.316	U	0.0933	U	0.152	U	0.118	U

Notes:

Petroleum Hydrocarbons analyzed by EPA Method 418.1 or 8015-M, NWTPH-HCID, or NWTPH-Gx/NWTPH-Dx.

VOCs analyzed by EPA Methods 8015, 8020, 8021B, 8240, 8260B, or 8260C OR by Purge and Trap Gas Chromatogram/Mass Spectrometry or EPA Method 601, 8010S, 8240, 8260B, or 8260C.

* Monitoring well was installed at a 25 degree angle from the vertical point of penetration.

(dup) = duplicate

B&V = Black & Veatch

cDCE = cis-1,2-dichloroethene

DOF = Dalton, Olmsted & Fuglevand, Inc.

DRO = diesel-range organics

E = Estimated value. The reported range exceeds the calibration range of the analysis.

Geo = GeoEngineers Inc.

GRO = gasoline-range organics

ORO = oil-range organics

PCE = perchloroethylene (tetrachloroethene)

ROW = right-of-way

SES = SES Strategies, Inc.

TCE = trichloroethene

tDCE = trans-1,2-dichloroethene

VC = vinyl chloride

WW = Windward

— = not analyzed

Detected results shown in bold, detections above the screening level (see Table 3) highlighted in gray

f = Analyte was detected in the associated method blank. Analyte concentration in the sample is greater than 10x the concentration found in the method blank.

ht = The analysis was performed outside the method or client-specified holding time requirement.

J = Estimated concentration.

ND = not detected at a concentration exceeding laboratory reporting limit; detection limit not provided

pr = The sample was received with incorrect preservation. The value reported should be considered an estimate.

U = not detected at or above the laboratory method detection limit (MDL); detections above the screening level highlighted in gray

x = The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

y = The GRO result in the sample is due to a pattern of peaks that is consistent with the chlorinated volatiles detected by the 8260C analysis.

z = No/low level gasoline/petroleum detection; result is likely elevated due to high detections of CVOCs.

Table 5

Groundwater Analytical Data for Deep Water-Bearing Zone Wells
700 Dexter Avenue North, Seattle, Washington

Sample Location	Area Location	Sample Date	Sampled By	Sampling Method	Analytical Results (micrograms per liter)												
					GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC	
					Screening Level	800	500	500	0.5	72	29	10,000	2.4	1	16	100	0.2
On Property																	
MW101 (-65.51 to -75.51)	Property	07/20/12 09/06/12	SES SES	Bladder Peristaltic	—	—	—	—	0.35 U	1.4	—	1 U	—	1 U	1 U	1 U	0.2 U
		Decommissioned															
MW-133	Property	09/25/17 04/25/18 10/26/18 12/12/18 02/01/19 03/13/19	PES PES PES PES PES PES	Bladder Bladder Bladder Bladder Bladder Bladder	41.2 U 31.6 U 458 31.6 U 46.4 U 31.6 U	— — — — — —	— — — — — —	0.0896 U 0.0896 U 0.0896 U 0.0896 U 0.0896 U 0.0896 U	0.748 0.837 0.412 U 0.412 U 0.412 U 0.412 U	0.158 U 0.158 U 0.158 U 0.158 U 0.158 U 0.158 U	0.316 U 0.316 U 0.316 U 0.316 U 0.316 U 0.316 U	12.7 0.646 1.92 J+ 1.71 22.4 4.45	16.2 0.516 1.63 J+ 2.75 9.29 5.92	13.3 10.7 7.94 7.88 12.4 7.48	1.13 0.315 J 0.257 J 0.454 J 0.588 0.483 J	0.239 J 3.51 3.43 5.95 4.36 10.8	
		Decommissioned March 2019															
MW-137	Property	09/25/17 04/12/18 10/26/18 12/12/18 02/01/19 03/11/19	PES PES PES PES PES PES	Bladder Bladder Bladder Bladder Bladder Bladder	58.5 U 31.6 U 86.9 U 31.6 U 58.4 U 31.6 U	— — — — — —	— — — — — —	0.0896 U 0.0896 U 0.0896 U 0.0896 U 0.0896 U 0.0896 U	3.90 0.412 U 0.412 U 0.412 U 0.412 U 0.412 U	0.158 U 0.158 U 0.158 U 0.158 U 0.158 U 0.158 U	0.316 U 0.316 U 0.316 U 0.316 U 0.316 U 0.316 U	15.0 0.199 U 0.896 J+ 0.463 U 1.48 0.344 J	19.1 0.153 U 0.893 J+ 0.437 J 0.616 0.275 J	62.0 1.79 0.893 J+ 0.437 J 0.616 0.275 J	0.152 U 0.152 U 0.152 U 0.152 U 0.152 U 0.152 U	0.118 U 4.26 0.118 U 0.357 J 0.365 J 0.179 J	
		Decommissioned March 2019															
MW-141	Property	09/22/17 04/12/18 10/25/18 12/12/18 01/30/19 03/11/19	PES PES PES PES PES PES	Bladder Submersible Bladder Bladder Bladder Bladder	— 326 31.6 U 31.6 U 31.6 U 31.6 U	— — — — — —	— — — — — —	0.0896 U 0.0896 U 0.0896 U 0.0896 U 0.0896 U 0.0896 U	0.941 0.412 U 0.412 U 0.412 U 0.412 U 0.412 U	0.158 U 0.158 U 0.158 U 0.158 U 0.158 U 0.158 U	0.316 U 0.316 U 0.316 U 0.316 U 0.316 U 0.316 U	0.199 U 71.3 J+ 25.6 J+ 91.6 J+ 0.701 0.153 U	0.153 U 25.6 J+ 91.6 J+ 0.479 J 1.30	0.345 J 5.68 J+ 7.01 J+ 0.479 J 1.30	0.152 U 0.152 U 0.152 U 0.152 U 0.152 U 0.152 U	0.457 J 7.01 J+ 3.10 1.46 0.557	
		Decommissioned March 2019															
MW-162	Property	02/05/19 03/12/19	PES PES	Bladder Peristaltic	— 690 J+	— —	— —	1.00 U 0.0896 U	1.00 U 0.412 U	1.00 U 0.158 U	1.00 U 0.316 U	2,800 613	613 538	1,070 758	9.58 2.63	128 46.5	
		Decommissioned March 2019															
MW-163 (duplicate)	Property	02/05/19 02/05/19 03/12/19	PES PES PES	Bladder Bladder Bladder	— — 319 J+	— — —	— — —	1.00 U 1.00 U 0.0896 U	1.00 U 1.00 U 0.412 U	1.00 U 1.00 U 0.158 U	1.00 U 1.00 U 0.316 U	218 220 282	150 153 334	42.2 40.3 56.9	1.00 U 1.00 U 2.87	2.95 3.45 1.10	
		Decommissioned March 2019															
MW-164	Property	02/05/19 03/12/19	PES PES	Bladder Bladder	— 565 J+	— —	— —	1.00 U 0.0896 U	1.80 0.412 U	1.00 U 0.158 U	1.00 U 0.316 U	871 444	372 327	385 529	3.41 4.24	4.41 7.80	
		Decommissioned March 2019															
Off Property																	
FMW-129 (-45 to -50)	SDOT Property South of Roy St	05/23/14 10/20/15 02/02/16 04/10/17 06/23/17 05/01/19	Farallon SES SES PES PES PES	Unknown Peristaltic Peristaltic Peristaltic Bladder Peristaltic	— — — — — —	— — — — — —	— — — — — —	— — — — — —	— — — — — —	— — — — — —	— — — — — —	0.40 25 13 194 81.1 101	0.57 39 61 492 182 166	17 250 240 1,420 474 372	ND 1 U 1 U 5.05 1.21 1.22	7.6 0.2 U 0.330 0.885 J 0.413 0.590 U	

Table 5

Groundwater Analytical Data for Deep Water-Bearing Zone Wells
700 Dexter Avenue North, Seattle, Washington

Sample Location	Area Location	Sample Date	Sampled By	Sampling Method	Analytical Results (micrograms per liter)																				
					GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC									
Screening Level					800	500	500	0.5	72	29	10,000	2.4	1	16	100	0.2									
FMW-131 (-34.65 to -44.65)	Block 37	09/02/16	Farallon	Unknown	—	—	—	—	—	—	—	0.20	U	0.20	U	41	0.20 U 1.7								
		03/24/17	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.199	U	0.153	U 45.6 J								
		06/23/17	PES	Bladder	—	—	—	0.0896	U	0.412	U	0.158	U	0.199	U	0.153	U 3.61 J								
		12/18/17	Farallon	Unknown	—	—	—	—	—	—	—	0.20	U	0.20	U	0.61	0.20 U 0.20 U								
		04/22/19	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.199	U	0.153	U 10.8 J								
FMW-3D	Block 31	03/24/17	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.199	U	0.153	U 0.0933 U 0.152 U 0.118 U								
GEI-2 (-21.12 to -31.12)	Block 37	03/24/17	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U 2.25 J								
		06/23/17	PES	Bladder	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U 0.153 U 16.3 J								
		04/22/19	PES	Peristaltic	—	—	—	1.05	—	0.412	U	0.158	U	0.316	U	0.199	U 0.153 U 11.5 J								
MW102 (-65.81 to -75.81)	Valley St ROW	08/16/12	SES	Peristaltic	—	—	—	—	—	—	—	—	—	1	U	1	U	1	U	0.2	U				
		09/05/12	SES	Bladder	—	—	—	0.35	U	1	U	1	U	3	U	1	U	1	U	1	U	0.2	U		
		12/17/13	SES	Bladder	—	—	—	0.35	U	1	U	1	U	3	U	1	U	1	U	1	U	0.2	U		
		10/27/15	SES	Bladder	—	—	—	—	—	—	—	—	—	—	—	1	U	1	U	1	U	0.2	U		
		02/02/16	SES	Bladder	—	—	—	—	—	—	—	—	—	—	—	1	U	1	U	1	U	0.2	U		
		03/29/17	PES	Bladder	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U 0.223 J	0.152 U	0.118 U				
		06/15/17	PES	Bladder	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U 0.0933 U	0.152 U	0.118 U				
		04/25/18	PES	Bladder	31.6	U	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.352	J	0.153 U	0.0933 U	0.152 U	0.118 U				
		01/24/19	PES	Bladder	31.6	U	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.22	J	0.153 U	0.0933 U	0.152 U	0.118 U				
		05/01/19	PES	Bladder	31.6	U	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U 0.0933 U	0.152 U	0.118 UJ				
MW103 (-67.58 to -77.58) (duplicate)	Alley East of 8th Ave North	07/31/12	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	12	—	25	—	150	—	10	U	79		
		09/05/12	SES	Peristaltic	—	—	—	0.35	U	1	U	1	U	3	U	8.3	—	22	—	80	—	1	U	110	
		09/05/12	SES	Peristaltic	—	—	—	0.35	U	1.6	—	1	U	3	U	8.1	—	22	—	85	—	1	U	120	
		12/18/13	SES	Peristaltic	—	—	—	0.35	U	2.4	—	1	U	3	U	4.3	—	6.1	—	8.6	—	1	U	1.2	
		12/18/13	SES	Peristaltic	—	—	—	0.35	U	2.4	—	1	U	3	U	4.0	—	5.2	—	7.1	—	1	U	0.94	
		06/17/15	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	1.8	—	1.4	—	1	U	1	U	0.94	
		10/20/15	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	3.6	—	1.4	—	1	U	1	U	1.6	
		02/02/16	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	1.0	—	1.2	—	1	U	1	U	0.53	
		03/29/17	PES	Peristaltic	—	—	—	0.0896	U	0.464	J	0.158	U	0.316	U	1.99	U	23.1	—	240	—	0.405	J	157	
		06/14/17	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.626	U	23.0	—	120	—	0.369	J	69.2	
		04/06/18	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	1.81	—	32.4	—	0.152	U	22.4	
		01/23/19	PES	Peristaltic	—	—	—	0.0896	U	1.35	—	0.158	U	0.316	U	0.365	J	1.48	—	11.4	—	0.152	U	6.68	
		04/22/19	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	3.09	—	88.0	—	0.209	J	32.3 J	
MW104 (-76.32 to -86.32)	8th Ave North ROW	08/16/12	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	1	U	1	U	1	U	1	U	0.2	U	
		09/06/12	SES	Bladder	—	—	—	0.35	U	1	U	1	U	3	U	1	U	1	U	1	U	1	U	0.2	U
		12/17/13	SES	Bladder	—	—	—	0.35	U	1	U	1	U	3	U	1	U	1	U	1	U	1	U	0.2	U
		10/27/15	SES	Peristaltic	—	—	—	—	—	—	—	—	—	—	—	2.6	—	4.4	—	4.3	—	1	U	0.2	U
		02/02/16	SES	Bladder	—	—	—	—	—	—	—	—	—	—	—	1	U	1.2	—	19	—	1	U	0.2	

Table 5

Groundwater Analytical Data for Deep Water-Bearing Zone Wells
700 Dexter Avenue North, Seattle, Washington

Sample Location	Area Location	Sample Date	Sampled By	Sampling Method	Analytical Results (micrograms per liter)																
					GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC					
Screening Level					800	500	500	0.5	72	29	10,000	2.4	1	16	100	0.2					
MW105 (-85.83 to -95.83)	Roy Street ROW	08/16/12	SES	Peristaltic	—	—	—	—	—	—	—	1	U	1	U	1	U	0.32			
		09/05/12	SES	Peristaltic	—	—	—	0.35	U	1	U	1	U	1	U	1	U	0.23			
		12/29/13	SES	Bladder	—	—	—	0.35	U	1	U	1	U	1	U	1	U	0.2			
		04/12/15	SES	Peristaltic	—	—	—	—	—	—	—	—	—	1.2	1.6	1	U	0.2			
		06/17/15	SES	Peristaltic	—	—	—	—	—	—	—	—	1	U	1	U	1	U	0.2		
		10/27/15	SES	Bladder	—	—	—	—	—	—	—	—	1	U	1	U	1	U	0.2		
		02/03/16	SES	Bladder	—	—	—	—	—	—	—	—	1	U	1	U	1	U	0.2		
		04/21/17	PES	Bladder	—	—	—	0.0896	U	0.544	J	0.158	U	0.316	U	0.199	U	0.153	U	0.155	
		06/14/17	PES	Bladder	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.356	J	0.180	
		04/11/18	PES	Bladder	31.6	U	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	1.67	
		01/23/19	PES	Bladder	31.6	U	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.790	J	0.317	J	1.51	
		04/23/19	PES	Bladder	31.6	U	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.917	
MW106 (-78.01 to -88.01)	SDOT Property South of Roy St	08/22/12	SES	Bladder	—	—	—	—	—	—	—	—	1	U	1	U	1	U	1		
		09/05/12	SES	Bladder	—	—	—	0.35	U	1	U	1	U	3	U	1	U	1	U	0.2	
		12/17/13	SES	Bladder	—	—	—	0.35	U	1	U	1	U	3	U	1	U	1	U	0.2	
		10/27/15	SES	Bladder	—	—	—	—	—	—	—	—	1	U	1	U	1	U	0.2		
		02/02/16	SES	Bladder	—	—	—	—	—	—	—	—	1	U	1	U	1	U	0.2		
		04/14/17	PES	Bladder	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.0933	
		06/30/17	PES	Bladder	—	—	—	0.0896	U	0.419	J	0.158	U	0.316	U	0.199	U	0.153	U	0.0933	
		05/04/18	PES	Bladder	31.6	U	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.0933	
		04/26/19	PES	Bladder	31.6	U	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.118	
		—	—	—	—	—	—	—	—	—	—	—	1	U	1	U	1	U	1		
MW113 (-37.06 to -47.06)	9th Ave North ROW	12/21/12	SES	Peristaltic	—	—	—	—	—	—	—	—	1.3	i	440	5,500	4.1	150			
		12/19/13	SES	Peristaltic	—	—	—	0.35	U	1	U	1	U	3	U	1	U	140			
		06/25/15	SES	Peristaltic	—	—	—	—	—	—	—	—	1	U	19	670	1	U	17		
		10/27/15	SES	Peristaltic	—	—	—	—	—	—	—	—	1	U	4.5	670	1.2	17			
		02/03/16	SES	Peristaltic	—	—	—	—	—	—	—	—	1	U	1.1	1,500	2.2	13			
		03/22/17	PES	Peristaltic	—	—	—	2.60	—	0.412	U	0.158	U	0.316	U	0.199	U	27.1	7,280	25.4	
		06/16/17	PES	Bladder	—	—	—	0.468	J	0.412	U	0.158	U	0.316	U	0.522	148	4,750	28.2		
		04/11/18	PES	Peristaltic	—	—	—	0.880	—	0.412	U	0.158	U	0.316	U	191	1,100	3,720	21.3		
		01/30/19	PES	Peristaltic	—	—	—	1.02	J	2.06	U	0.790	U	1.580	U	0.995	U	2.81	6,330	22.8	
		02/07/19	PES	Peristaltic	3,100	J+z	—	0.811	—	0.412	U	0.158	U	0.316	U	0.199	U	1.77	6,990	25.7	
MW122 (-74.97 to -88.97)	Alley East of 800 Aloha St	12/23/13	SES	Peristaltic	—	—	—	0.35	U	1	U	1	U	3	U	1	U	1	U	0.2	
		10/20/15	SES	Peristaltic	—	—	—	—	—	—	—	—	1	U	1	U	1	U	1	U	0.2
		02/02/16	SES	Peristaltic	—	—	—	—	—	—	—	—	1	U	1	U	1	U	1	U	0.2
		03/28/17	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.0933	
		06/14/17	PES	Bladder	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.162	J	0.0933	
		04/06/18	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.0933	
MW123 (-42.49 to -52.49)	Westlake Ave North ROW	12/23/13	SES	Peristaltic	—	—	—	0.35	U	1	U	1	U	3	U	1	U	1	U	0.2	
		04/01/17	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153	U	0.0933	
		06/24/17	PES	Bladder	—	—	—	0.													

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Sample Location	Area Location	Sample Date	Sampled By	Sampling Method	Analytical Results (micrograms per liter)													
					GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC		
Screening Level					800	500	500	0.5	72	29	10,000	2.4	1	16	100	0.2		
	ROW	04/22/15	SES	Peristaltic	—	—	—	—	—	—	—	1	U	1	U	150	1 U 59	
		10/20/15	SES	Peristaltic	—	—	—	—	—	—	—	1	U	1	U	7.0	1 U 95	
		02/02/16	SES	Peristaltic	—	—	—	—	—	—	—	1	U	1	U	70	1 U 140	
		03/29/17	PES	Peristaltic	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153 U 7.16
		06/21/17	PES	Bladder	—	—	—	3.84	U	0.541	U	0.158	U	0.316	U	0.199	U	0.153 U 109
		04/09/18	PES	Peristaltic	—	—	—	28.3	U	0.412	U	0.158	U	0.316	U	0.199	U	0.153 U 3.07
	MW-138	09/21/17	PES	Bladder	63.3	J	—	—	0.179	U	2.60	U	0.316	U	0.632	U	0.398	U
		04/11/18	PES	Bladder	91.1	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U
		10/29/18	PES	Bladder	38.5	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U
		01/03/19	PES	Bladder	31.6	U	—	—	0.0896	U	0.442	J	0.158	U	0.316	U	0.199	U
		03/14/19	PES	Bladder	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	1.49	0.153 U 0.0933 U
		04/22/19	PES	Bladder	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U
	MW-140 (duplicate)	09/22/17	PES	Bladder	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.450 J 0.477 J
		09/22/17	PES	Bladder	—	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.456 J 0.523
		04/12/18	PES	Bladder	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.402 J+ 0.572 J+	0.152 U 0.246 J+
	MW-153 (duplicate)	05/01/18	PES	Bladder	31.6	J	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.756	0.153 U 0.612
		01/22/19	PES	Bladder	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U
		04/24/19	PES	Bladder	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U
		04/24/19	PES	Bladder	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U
	MW-158A	04/30/18	PES	Bladder	101	—	—	0.0896	U	2.66	U	0.158	U	0.316	U	17.7	18.7	
		01/24/19	PES	Bladder	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U
		04/25/19	PES	Bladder	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U
	MW-160	05/21/18	PES	Bladder	51.0	J	—	—	0.0896	U	0.412	U	0.158	U	0.342	J	0.380 J 0.835	0.152 U 2.96
		01/25/19	PES	Bladder	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U
		05/01/19	PES	Bladder	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U

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					GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC				
Screening Level					800	500	500	0.5	72	29	10,000	2.4	1	16	100	0.2				
MW-161	8th Ave N ROW	05/21/18	PES	Bladder	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.329	J	2.01			
		01/25/19	PES	Bladder	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.472	J	1.66	
		05/01/19	PES	Bladder	31.6	U	—	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.482	J	1.66	
Number of Samples					54	—	—	114	114	114	114	147	147	147	147	147	147			
Number of Detections					15	—	—	9	19	0	3	56	65	95	32	86				
Frequency of Detection					28%	—	—	8%	17%	0%	3%	38%	44%	65%	22%	59%				
Maximum					3,100	J+z	—	28.3	3.90	—	0.396	J	2,800	1,100	7,280	28.2	290	ve		
Minimum					31.6	U	—	0.0896	U	0.412	U	0.158	U	0.316	U	0.199	U	0.0933	U	
												0.153	U	0.152	U	0.118	U			
<u>Notes:</u>																				
1. Petroleum hydrocarbons analyzed by EPA Method 418.1 NWTPH-HCID, or NWTPH-Gx, NWTPH-Dx or 8015-M					11. (dup) = duplicate															
2. GRO = gasoline-range organics					12. SES = SoundEarth Strategies, Inc.															
3. DRO = diesel-range organics					13. Farallon = Farallon Consulting, LLC															
4. ORO = oil-range organics					14. — = not analyzed or not measured															
5. PCE = perchloroethylene (tetrachloroethene)					15. U = not detected at a concentration exceeding laboratory reporting limit															
6. TCE = trichloroethene					16. ND = not detected at a concentration exceeding laboratory reporting limit; detection limit not provided															
7. cDCE = cis-1,2-dichloroethene					17. Detected results shown in bold, detections above the screening levels highlighted in gray															
8. tDCE = trans-1,2-dichloroethene					18. ve = estimated value due to the reported range exceeding the calibration range of the analysis															
9. VC = vinyl chloride					19. i = the presence of the analyte indicated may be due to carryover from previous sample injections															
10. ROW = right-of-way					20. z = No/low level gasoline/petroleum detection; result is likely elevated due to high detections of CVOCs															

Table 6

Groundwater Geochemical Parameters
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Property	Sample Date	Sampled By	Alkalinity (mg CaCO ₃ /L)	Chloride (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	TOC (mg/L)	Iron (mg/L)			Total Manganese (mg/L)	Dissolved Gases (µg/L)							
									Total	Ferrous	Ferric		Methane	Ethane	Ethene					
Shallow Zone																				
F13	Property	03/27/17	PES	266	8.85	0.0227	U	68.3	10.0	24.2	1.0	23.2	0.651	510	0.296	U	0.422	U		
		06/22/17	PES	484	12.6	0.0227	U	6.13	10.9	29.3	1.5	27.8	0.806	2,610	0.296	U	0.422	U		
Decommissioned March 2019																				
J5	Property	03/21/17	PES	53.4	28.0	0.0584	J	16.3	4.10	1.09	0.6	0.49	0.474	2,370	0.296	U	29.4			
		06/26/17	PES	209	45.1	0.0227	U	8.85	11.4	2.91	—	—	2.24	9,600	19.6		34.4			
Decommissioned March 2019																				
J15 (dup)	Property	03/27/17	PES	476	24.2	0.0227	U	55.8	20.0	5.52	2.0	3.5	3.34	3,100	0.296	U	0.422	U		
		06/26/17	PES	486	22.0	0.0227	U	60.3	19.1	2.66	1.5	1.2	3.09	2,220	0.296	U	0.422	U		
		06/26/17	PES	543	22.1	0.0227	U	60.4	19.0	3.02	1.5	1.5	3.03	2.34	0.296	U	0.422	U		
Decommissioned March 2019																				
K8	Property	03/21/17	PES	70.3	10.1	0.103		27.2	5.93	0.0622	J	0	0.0622	0.242	41.4	0.296	U	0.422	U	
		06/26/17	PES	97.5	14.7	0.307		25.8	6.45	0.0411	J	0	0.0411	0.296	72.7	0.296	U	0.422	U	
Decommissioned March 2019																				
M15 (dup)	Property	03/27/17	PES	830	11.6	0.0227	U	40.4	11.4	3.76	2.75	1.01	6.07	11,500	0.296	U	0.422	U		
		03/27/17	PES	817	11.6	0.0227	U	40.4	11.7	3.77	—	—	6.17	10,400	0.296	U	0.422	U		
		06/26/17	PES	904	11.0	0.0227	U	47.2	11.0	3.32	—	—	6.32	7,250	0.296	U	0.422	U		
Decommissioned March 2019																				
MW121	8th Ave N ROW	12/26/13	SES	790	18.6	0.0250	U	200	—	2.39	1.90	0.49	6.47	346	5	U	5	U		
		03/28/17	PES	848	12.2	0.0227	U	643	17.9	33.3	2.0	31.3	13.2	479	2.04		0.422	U		
		06/20/17	PES	930	13.3	0.0227	U	61.2	J	16.5	27.1	3.0	24.1	11.0	2,140	8.88		0.422	U	
MW125	Valley Street ROW	12/26/13	SES	650	112	0.076		12.8	—	2.39	1.47	0.92	1.85	455	6.34		5	U		
MW-9	8th Ave N ROW	12/16/13	SES	56	3.76	0.059		6.08	—	3.32	3.41	0	0.778	6.24	5	U	5	U		
N7	Property	03/30/17	PES	118	4.73	6.87		25.2	1.35	0.120	0.0	0.12	1.50	11,000	0.296	U	0.422	U		
		06/27/17	PES	235	8.76	6.290		48.4	2.71	1.45	0.25	1.20	3.31	8,430	0.296	U	0.422	U		
Decommissioned March 2019																				
R-MW5	Dexter Ave N ROW	03/23/17	PES	183	32.2	0.0549	J	33.0	3.94	2.94	1.0	1.94	4.24	118	0.296	U	0.422	U		
		06/16/17	PES	152	58.3	0.253		21.8	2.59	2.74	—	—	1.29	275	0.296	U	0.422	U		
R-MW6	8th Ave N ROW	03/21/17	PES	586	5.72	0.191		119	6.28	5.02	—	—	6.24	9,410	0.296	U	0.422	U		
		06/20/17	PES	718	11.1	0.023	U	85.7	13.6	27.0	1.5	25.5	8.28	6,980	10.7		11.2			
Intermediate A Zone																				
BB-8 (dup)	Roy Street ROW	12/29/13	SES	270	12.6	3.68		84.6	—	0.085	0.01	0.08	0.252	5	U	5	U	5	U	
		03/22/17	PES	254	7.87	3.17		41.5	2.25	0.125	0	0.125	0.0705	0.412	J	0.296	U	0.422	U	
		06/14/17	PES	290	10.2	2.74		56.9	3.34	0.0348	J	0	0.035	0.0475	0.287	U	0.296	U	0.422	U
		04/11/18	PES	258	7.43	3.41		3.98	3.24	0.145	0	0.145	0.0940	0.287	U	0.296	U	0.422	U	
		04/11/18	PES	262	7.42	3.17		3.98	3.14	0.0962	0	0.096	0.0544	0.287	U	0.296	U	0.422	U	
		01/23/19	PES	280	12.4	0.891		93.3	3.43	0.0954	J	—	—	0.0820	J	111	0.735	J	0.422	U
		04/23/19	PES	227	28.1	2.77		44.4	2.71	0.315	0.0	0.3	0.0637	0.287	U	0.296	U	0.422	U	
GEI-1	Block 37	03/24/17	PES	564	8.9	0.0227	U	0.0774	U	11.7	23.8	1.0	22.8	3.10	20,500	0.296	U	0.422	U	
		06/13/17	PES	304	15	0.0792	J	25.3	6.73	9.05	—	—	1.50	10,600	0.296	U	0.422	U		
MW107	8th Ave N ROW	12/16/13	SES	340	70.8	0.025	U	165	—	1.35	0.43	0.92	0.358	8.69	5	U	5	U		
		03/27/17	PES	559	122	0.0262		0.0774	U	147	17.6	2.0	15.6	1.12	8.38	0.296	U	159		
		06/19/17	PES	651	90	0.0227	U	0.0774	U	91.0	10.5	1.5	9.0	0.955	7350	0.296	U	205		

Table 6

Groundwater Geochemical Parameters
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Property	Sample Date	Sampled By	Alkalinity (mg CaCO ₃ /L)	Chloride (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	TOC (mg/L)	Iron (mg/L)			Total Manganese (mg/L)	Dissolved Gases (µg/L)		
									Total	Ferrous	Ferric		Methane	Ethane	Ethene
MW107		05/01/19	PES	538	41.6	0.0227 U	51.8	14.2	2.67	2.0	0.7	1.08	18,000	122	93.2
MW108	Alley Between 8th & 9th Ave N	12/17/13	SES	600	25.8	0.075	12.5	—	17.5	21.7	0	1.96	2,110	22.8	5 U
		03/28/17	PES	577	22.1	0.0227 U	106	7.32	19.7	2.5	17.2	2.27	1,740	36.4	2.20
		06/27/17	PES	679	20.6	0.0227 U	101	8.62	21.8	2.0	19.8	2.20	3,940	47.8	0.42 U
MW109	Alley Between 8th & 9th Ave N	12/17/13	SES	670	16.1	0.0250 U	34.6	—	12.6	16.2	0	4.04	1,400	5.89	5 U
		03/29/17	PES	498	6.90	0.0255 J	31.4	10.8	12.0	1.5	10.5	3.01	2,000	7.21	0.422 U
		06/17/17	PES	693	13.3	0.0227 U	42.5	12.2	14.6	1.5	13.1	3.90	2,540	8.65	0.422 U
MW110	Alley Between 8th & 9th Ave N	12/19/13	SES	390	20.4	0.603	158	—	0.079	0.04	0.04	3.28	7.66	5 U	5 U
		03/23/17	PES	425	36.2	0.652	108	7.98	0.948 J	0.1	0.848	3.90	125	1.21 J	0.422 U
		06/27/17	PES	516	27.0	0.0227 U	160	4.91	0.115	0	0.115	2.13	95.5	17.4	0.422 U
MW114	SDOT Property S of Roy	12/18/13	SES	190	31.2	0.032	98.8	—	0.075	0.03	0.05	0.629	5 U	5 U	5 U
MW115	9th Ave N ROW	12/19/13	SES	580	22.1	0.0250 U	3.35	—	6.24	6.69	0	1.44	2,550	5 U	5 U
		03/22/17	PES	417	28.5	0.0227 U	35.9	7.69	5.69	1.5	4.19	1.32	215	0.296 U	0.422 U
		06/22/17	PES	401	33.0	0.0227 U	46.1	7.39	6.19	1.5	4.69	1.19	3,570	4.98	0.422 U
MW116	9th Ave N ROW	12/19/13	SES	310	26.2	0.0250 U	14.5	—	2.48	2.65	0	1.14	1,750	5 U	5 U
		03/21/17	PES	432	22.0	0.0227 U	25.7	7.34	6.01	3.9	2.11	0.869	8,590	0.296 U	0.422 U
		06/16/17	PES	377	25.1	0.0227 U	9.31	6.80	6.69	1.8	4.89	0.793	8,610	0.296 U	0.422 U
MW117	Dexter Ave N ROW	12/18/13	SES	200	9.11	0.0250 U	56.3	—	1.49	2.03	0	0.344	5 U	5 U	5 U
MW119	9th Ave N ROW	12/19/13	SES	310	12.1	0.0250 U	3.34	—	19.4	18.6	0.8	2.55	3,450	5 U	5 U
		03/29/17	PES	255	20.5	0.164	14.9	6.84	17.1	2.0	15.1	2.98	819	0.296 U	0.422 U
		06/28/17	PES	360	13.7	0.0227 UJ	56.1	9.09	5.66	1.5	4.2	1.25	73.5	0.296 U	0.422 U
(dup)	8th Ave N ROW	12/19/13	SES	290	36.5	0.0690	99.4	—	0.288	0.17	0.12	0.319	10.1	5 U	5 U
		04/09/18	PES	151	30.2	0.237	66.9	1.08	1.40	0	1.40	0.194	0.287 U	0.296 U	0.422 U
		01/24/19	PES	206	22.4	1.98	73.6	1.78	3.68	0.0	3.68	0.387	235	2.71	0.422 U
		05/03/19	PES	217	20.5	2.01	66.2	1.66	2.31 J	—	—	0.384	157 J	0.296 U	0.422 U
		05/03/19	PES	217	20.3	1.96	65.9	1.58	1.12 J	—	—	346	115 J	0.296 U	0.422 U
MW131	Property	03/27/17	PES	911	141	0.0227 U	0.0774 U	8.93	7.98	1.90	6.08	1.06	16,200	0.296 U	280
		06/20/17	PES	1,050	122	0.0227 U	0.724 J	10.8	7.42	—	—	1.01	10,700	0.296 U	332
		04/16/18	PES	712	114	0.0227 U	0.0774 U	44.2	7.97	1.8	6.2	1.19	29,900	329	467
		Decommissioned March 2019													
(dup)	8th Ave N ROW	04/27/18	PES	794	15.6	0.0227 U	0.426 J	33.7	3.16	1.50	1.66	2.58	7,980	44.6	0.422 U
		01/28/19	PES	784	10.1	0.0227 U	0.0774 U	27.7	2.87	2.0	0.87	2.37	3,530	17.7	0.422 U
		01/28/19	PES	779	10.2	0.0227 U	0.0774 U	28.3	2.66	2.0	0.66	2.46	3,490	18.5	0.422 U
		04/24/19	PES	798	9.76	0.0227 U	27.3	31.7	3.50	1.2	2.3	1.99	3,560	19.2	0.422 U
MW-144	8th Ave N ROW	04/27/18	PES	740	182	0.0227 U	9.39	159	1.07	0.50	0.57	1.98	17,700	55.4	5,480
		01/28/19	PES	735	149	0.0227 U	0.0774 U	15.1	1.98	—	—	1.66	13,700	495	1,140
		04/23/19	PES	733	144	0.0227 U	0.0774 U	11.4	1.22	1.2	0.0	1.48	13,000	771	699
MW-146	8th Ave N ROW	04/30/18	PES	363	30.4	0.0227 U	22.3	4.47	2.65	1.25	1.40	1.26	9,240	11.9	489
		01/22/19	PES	249	15.8	0.0227 U	32.1	3.43	1.76	2.0	0.0	0.56	2,460	1.84	107
		04/24/19	PES	310	14.8	0.0227 U	23.3	4.95	2.87	2.5	0.4	0.770	5,090	4.00	347
MW-149	Property	04/10/18	PES	504	44.6	0.0227 U	16.9	9.94	2.18	1.80	0.38	2.70	14,400	414	363
		12/13/18	PES	407	7.71	0.0227 U	225	75.1	26.1	0.50	25.6	12.8	11,400	2,430	35.9
		Decommissioned March 2019													
MW-151	Property	04/10/18	PES	409	65.5	0.0870 J	2.08 J	39.2	1.38	0.80	0.58	0.536	36,500	83.3	1,440
		12/14/18	PES</td												

Table 6

Groundwater Geochemical Parameters
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Property	Sample Date	Sampled By	Alkalinity (mg CaCO ₃ /L)	Chloride (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	TOC (mg/L)	Iron (mg/L)			Total Manganese (mg/L)	Dissolved Gases (µg/L)			
									Total	Ferrous	Ferric		Methane	Ethane	Ethene	
MW-151		Decommissioned March 2019														
MW-156 (dup)	8th Ave N ROW	04/26/18	PES	436	46.3	0.0227	U	25.0	10.7	10.2	0	10.2	1.13	2,250	28.4	23.8
		01/24/19	PES	554	25.1	0.0227	U	67.6	34.3	3.42	0.0	3.42	6.59	2,470	44.8	0.422 U
		04/24/19	PES	618	18.6	0.0227	U	145	57.3	3.81	0.4	3.4	9.01	1,720	31.2	0.422 U
		04/24/19	PES	612	19.3	0.259		145	56.0	4.76	0.4	4.4	9.75	1,590	28.4	0.422 U
Intermediate B Zone																
MW111	Alley Between 8th & 9th Ave N	12/17/13 03/23/17 06/14/17	SES PES PES	170 179 202	47.3 22.9 23.2	0.025 0.0680 0.0227	U J U	4.73 8.25 8.97	— 0.918 1.20	0.168 0.391 0.298	0.18 0.1 —	0 0.3 —	0.135 0.151 0.142	14.7 136 231	5 U 5.75 7.73	5 U 4.17 6.71
MW112	Dexter Ave N ROW	12/26/13 03/22/17 06/16/17 04/12/18 12/22/18 04/22/19	SES PES PES PES PES PES	160 188 240 16.7 41.6 82.9	12.3 10.6 1.15 2.09 9.72 7.09	0.0640 0.0227 0.162 0.398 0.0683 0.0227	J U J J J U	44.9 45.2 1.26 1.31 0.342 7.65	— 1.35 5.48 2.80 5.51 6.04	0.560 0.238 2.56 19.5 22.6 4.90	0.23 0.33 — 0.0 — —	0.106 0.0411 0.0871 0.421 0.573 0.177	5 U 4.89 1.78 326 373 281	5 U 0.296 U 0.296 U 0.296 U 0.296 U 1.12 J	5 U 0.422 U 0.422 U 0.422 U 0.422 U 1.13 J	
		04/26/18 12/13/18	PES PES	542 260	30.1 40.4	0.0227 0.0227	U U	10.6 7.21	18.6 3.4	9.59 0.544	— —	2.04 0.278	4,640 89.7	75.9 0.925 J	0.422 U 41.0	
Decommissioned March 2019																
MW130 (dup)	Property	03/29/17 06/30/17 06/30/17 05/21/18 12/17/18	PES PES PES PES PES	276 339 335 2.71 384	100 115 111 135 143	0.0227 0.0227 0.0227 0.0227 0.0227	U U U U U	7.07 6.23 6.16 265 17.3	10.7 1.84 J 9.68 J 1.68 J 12.6	1.19 0.907 0.876 5.44 2.26	1.0 0.0 0.0 0.0 0.0	0.19 0.907 0.876 5.44 2.26	0.555 0.532 0.527 0.727 0.490	619 1,040 1,120 1,760 324	1.62 2.47 2.33 33.6 8.36	30.0 64.5 69.1 284 166
		Decommissioned March 2019														
		04/26/18 12/13/18	PES PES	542 260	30.1 40.4	0.0227 0.0227	U U	10.6 7.21	18.6 3.4	9.59 0.544	— —	2.04 0.278	4,640 89.7	75.9 0.925 J	0.422 U 41.0	
		Decommissioned March 2019														
		04/16/18	PES	298	38	0.0227	UJ	1.30 J	3.27	292	0.00	292	5.00	5,200	61.3	952
MW-135	Property	04/25/18 12/13/18	PES PES	273 379	118 128	0.0227 0.0227	U U	21.9 61.8	6.21 18.1	1.74 4.95	1.50 0.75	0.24 4.20	0.656 1.450	333 2,060	18.1 56.1	131 327
		Decommissioned March 2019														
		04/16/18	PES	241	22.1	0.165		0.638 J	15.1	21.4	0.60	20.8	0.618	5,510	8.52	5.77
MW-139	Property	04/25/18	PES	212	21.9	0.0227	R	2.21 J	28.5	1.13	0.75	0.38	0.251	4.28	8.04	0.42 U
Decommissioned March 2019																
MW-143	8th Ave N ROW	04/30/18 01/29/19 04/24/19	PES PES PES	448 400 393	66.5 58.5 56.2	0.0227 0.0227 0.0227	U U U	4.69 J 3.12 J 8.53	2.55 7.02 7.19	2.08 1.6 0.687	0.50 0.75 0.3	1.58 0.85 0.4	0.390 0.378 0.317	6,720 8,520 6,940	92.5 134 125	360 0.422 U 0.422 U
		Decommissioned March 2019														
		04/27/18 01/29/19 04/26/19	PES PES PES	272 255 287	74.4 43.5 44.7	0.238 0.219 0.0227		71.0 55.4 73.9	8.09 J 4.80 5.29	42.9 4.85 5.73	0.0 0.0 0.0	42.9 4.85 5.7	0.912 0.193 0.318	2,050 276 455	0.296 U 0.296 U 1.73	18.5 0.422 U 5.24
MW-147	Roy Street ROW	05/01/18 01/22/19 04/23/19	PES PES PES	302 302 346	40.8 56.2 26.9	0.0227 0.0227 0.0227	U U U	183 43.2 28.1	21.3 5.2 13.7	17.1 6.01 4.39	— 1.0 1.5	— 5.0 2.9	0.564 0.646 0.787	5,060 4,210 8,110	10.7 2.10 0.296 U	144 100 158

Table 6

Groundwater Geochemical Parameters
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Property	Sample Date	Sampled By	Alkalinity (mg CaCO ₃ /L)	Chloride (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	TOC (mg/L)	Iron (mg/L)			Total Manganese (mg/L)	Dissolved Gases (µg/L)							
									Total	Ferrous	Ferric		Methane	Ethane	Ethene					
MW-148	Roy Street ROW (dup)	05/01/18	PES	170	22.2	0.0227	U	95.5	2.46	12.0	0.25	11.8	0.439	1,210	0.296	U	0.422	U		
		05/01/18	PES	162	22.5	0.0227	U	96.1	2.53	11.2	0.25	11.0	0.379	1,140	0.296	U	0.422	U		
		01/23/19	PES	151	17.7	0.0227	U	154	4.04	10.1	—	—	0.594	1390	0.296	U	2.84			
		04/26/19	PES	161	17.1	0.0227	U	175	5.19	2.91	0.4	2.5	0.420	1,600	0.296	U	3.65			
MW-152	Property	04/10/18	PES	312	128	0.0227	U	15.0	13.2	0.210	0.00	0.21	0.386	1,590	41.1		1,830			
		12/14/18	PES	299	181	0.0227	U	31.6	16.9	3.82	1.0	2.8	1.46	3,710	32.2		2,050			
MW-157	8th Ave N ROW	04/26/18	PES	201	27.8	0.0227	U	4.51	J	2.86	1.02	—	0.209	111	0.779	J	36.6			
		01/24/19	PES	421	43.2	0.0227	U	24.1		12.9	5.25	3.0	2.3	1.17	4,970	37.4		124		
		04/24/19	PES	513	34.1	0.0227	U	95.0		39.5	9.40	3.0	6.4	2.13	5,510	36.0		119		
W-MW-01	8th Ave N ROW	03/30/17	PES	211	23.8	0.023	U	29.0		1.84	18.2	0.25	18.0	0.542	367	0.757	J	1.27	J	
		06/19/17	PES	250	27.6	0.0727	J	28.3		3.00	9.48	—	—	0.321	461	0.296	U	0.42	U	
		04/13/18	PES	214	26.8	0.0227	U	61.4		2.95	20.4	0.8	19.6	0.717	702	5.81		7.55		
		01/25/19	PES	235	31.7	0.0227	UJ	56.9		7.93	11.1	1.5	9.6	0.552	291	2.43		3.41		
W-MW-02	8th Ave N ROW	12/16/13	SES	240	105	0.025	U	101		—	0.672	0.87	0	0.676	8.91	5	U	5	U	
		03/27/17	PES	455	142	0.0227	UJ	0.0774	U	204	47.5	1.75	45.8	4.12	6,740	0.296	U	8.32		
		06/19/17	PES	520	103	0.0227	UJ	0.0774	U	116	33.7	1.5	32.2	2.98	16,900	0.296	U	3.71		
		06/12/18	PES	854	77.9	0.0227	R	0.0774	U	97.7	21.1	3.4	17.7	3.45	23,800	14.3		57.9		
		01/25/19	PES	876	91	0.0665	J	0.0774	U	33.7	20.8	2.0	18.8	3.71	11,300	0.67	J	0.422	U	
		04/23/19	PES	799	86.7	0.0227	U	0.0774	U	26.1	13.4	0.5	12.9	3.43	10,600	45.2		37.4		
Deep Zone																				
FMW-129	SDOT Property S of Roy	04/10/17	PES	308	44.2	0.0227	U	124		2.74	0.365	0.00	0.365	0.402	279	26.8		0.422	U	
		06/23/17	PES	296	36.1	0.0914	J	95.5		1.70	9.92	1.00	8.92	0.412	276	14.7		0.422	U	
FMW-131	Block 37	03/24/17	PES	166	6.12	0.0227	U	0.738		2.18	0.598	0.5	0.098	1.03	159	1.19	J	0.422	U	
		06/23/17	PES	273	28.1	0.109		29.2		1.56	2.39	0.3	2.14	1.26	87.4	0.296	U	0.422	U	
GEI-2	Block 37	03/24/17	PES	420	12.5	0.0227	U	0	U	8.14	24.0	0.25	23.8	0.898	15.1	0.296	U	0.422	U	
		06/23/17	PES	458	23.0	0.0227	U	0	U	6.84	14.9	1.00	13.9	0.483	10,500	23.8		42.5		
MW102	Valley Street ROW	04/25/18	PES	160	4.99	0.0315	J	0.880	J	1.94	9.60	1.00	8.60	0.414	0.561	0.296	U	0.422	U	
		01/24/19	PES	162	5.19	0.0553	J	1.74	J	4.36	6.46	0.0	6.46	0.363	172	0.296	U	0.422	U	
		05/01/19	PES	173	5.39	0.0227	U	0.318	J	3.75	11.9	0.5	11.4	0.405	255	1.07	J	0.422	U	
MW103	Alley Between 8th & 9th Ave N	12/18/13	SES	380	48.8	0.025	U	0.99		—	1.14	1.39	0	1.10	67.5	9.14		13.5		
		03/23/17	PES	337	48.4	0.0227	U	36.3		1.97	1.68	0.25	1.43	1.09	433	82.5		34.1		
		06/14/17	PES	339	34.7	0.0227	U	28.1		2.58	4.56	—	—	0.936	863	84.6		43.1		
MW104	8th Ave N ROW	12/17/13	SES	310	28.9	0.025	U	23.1		—	5.45	5.03	0.42	0.757	25.4	5	U	5	U	
		03/30/17	PES	253	36.0	0.0227	U	18.8		3.44	0.487	—	—	0.178	170	3.35		2.71		
		06/30/17	PES	218	11.7	0.0227	U	6.05		1.68	1.77	0.0	1.8	0.360	40.6	0.296	U	0.422	U	
		04/09/18	PES	224	17.2	0.0227	U	0.594	J	7.13	J	0.793	0.3	0.49	0.263	398	0.296	U	5.71	
		02/01/19	PES	79.8	6.74	0.0227	U	5.50		6.72	37.0	0.0	37.0	0.656	605	2.41		29.4		
		04/23/19	PES	196	18.6	0.0227	U	5.96		5.97	5.03	0.0	5.0	0.285	437	2.60		17.7		
MW105	Roy Street ROW	12/29/13	SES	440	48.3	0.716		29.3		—	2.91	2.0	0.9	1.24	44.5	5	U	6.14		

Table 6

**Groundwater Geochemical Parameters
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Sampled By	Alkalinity (mg CaCO ₃ /L)	Chloride (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	TOC (mg/L)	Iron (mg/L)			Total Manganese (mg/L)	Dissolved Gases (µg/L)			
									Total	Ferrous	Ferric		Methane	Ethane	Ethene	
MW106		05/04/18 04/26/19	PES PES	283 267	25.0 23.6	0.0227 U 0.0227 U	10.4 15.9	1.74 3.32	0.164 3.42	0.0 0.0	0.16 3.4	0.496 0.695	77.8 42.1	0.296 U 0.296 U	10.8 0.422 U	
MW113	9th Ave N ROW	12/19/13	SES	96	23.5	0.280	17.4	—	0.119	0.03	0.09	0.0248	5 U	5 U	5 U	
		03/22/17	PES	594	65.5	0.0295 J	55.4	27.0	7.46	4.0	3.46	0.757	3.53	0.296 U	0.422 U	
		06/16/17	PES	587	57.5	0.0227 U	41.9	18.0	14.4	1.5	12.9	0.990	6,520	147	0.422 U	
		02/07/19	PES	551	43.9	0.0389 J	33.3	18.8	6.1	2.5	3.6	0.659	4,050	39.9	6.30	
MW124	Valley Street ROW	12/26/13 04/13/18	SES PES	160 162	5.96 4.47	1.22 0.0227 U	0.730 0.46 J	— 2.45	1.46 20.1	0.390 0.5	1.07 19.6	0.125 0.757	5 U	5 U	5 U	
MW128	Westlake Ave N ROW	03/29/17 06/21/17	PES PES	387 1,050	15.9 24.6	0.0227 U 0.0227 U	0.0774 U 0.0774 U	4.84 7.81	10.5 23.0	1.8 —	8.7 —	0.227 0.704	12,600 19,600	13.2 33.4	64.8 45.1	
MW-133	Property	04/25/18	PES	173	9.91	0.287	1.43	J	2.84	4.80	1.25	3.55	0.297	549	5.77	17.4
MW-137	Property	04/12/18	PES	213	109.0	0.0227 R	10.8	2.90	218	0.75	217	4.41	1,600	0.296 U	4.47	
MW-138	Dexter Ave N ROW	04/11/18 01/03/19 04/22/19	PES PES PES	143 125 139	13.8 14.1 14.2	0.0227 U 0.0227 U 0.0227 U	45.9 47.5 5.70	4.89 J 3.90 5.70	21.5 2.19 13.2	0.00 0.00 —	21.5 2.2 —	0.725 0.375 0.509	83.1 61.3 164	0.296 U 0.621 J 0.296 U	0.422 U 0.573 J 1.43	
MW-140	Roy Street ROW	04/12/18	PES	249	15.5	0.0227 R	5.73	2.40	15.0	0.30	14.7	0.795	261	0.296 U	0.422 U	
MW-141	Property	04/12/18	PES	179	9.64	0.0227 R	7.49	4.30	4.61	—	—	0.556	2,690	3.29	0.869 J	
MW-153 (dup)	Roy Street ROW	05/01/18 01/22/19 04/24/19 04/24/19	PES PES PES PES	148 156 174 170	24 9.91 9.4 9.16	0.0227 U 0.0227 U 0.0227 U 0.0227 U	23.7 13.2 9.23 8.91	1.26 1.92 3.86 4.62	1.01 3.01 3.60 J 1.59 J	— 0.0 0.0 0.0	— 3.0 3.6 1.6	0.187 0.299 0.385 0.305	74.3 387 412 434	0.296 U 0.296 U 0.296 U 0.296 U	0.422 U 4.89 1.79 0.422 U	
		04/30/18 01/24/19 04/25/19	PES PES PES	345 329 345	113 29.7 26.7	0.446 0.0227 U 0.0227 U	278 26.8 21.1	54.8 7.95 8.11	55.4 181 12.4 J	0.50 0.0 —	54.9 181 —	1.04 3.07 0.393 J	352 196 177	15.7 2.52 0.296 U	11.0 8.12 4.74	
MW-160	8th Ave N ROW	05/21/18 01/25/19 05/01/19	PES PES PES	186 134 197	10.7 10.7 10.5	0.0703 J 0.0227 U 0.0227 U	2.68 J 1.87 J 1.26 J	1.47 3.98 3.79	12.3 59.1 4.6	0.0 0.5 0.0	12.3 58.6 4.6	0.400 1.22 0.387	129 766 1,070	14.5 11.7 4.41	4.75 0.422 U 0.422 U	
MW-161	8th Ave N ROW	05/21/18 01/25/19 05/01/19	PES PES PES	294 282 293	25.0 25.5 25.5	0.0227 U 0.0227 UJ 0.0227 U	13.5 13.4 12.2	1.49 4.52 1.58	9.37 7.34 5.73	0.0 0.0 0.0	9.4 7.3 5.7	0.758 0.784 0.795	53.4 69.0 98.1	2.64 0.296 U 0.296 U	0.979 J 0.422 U 0.422 U	
NOTES:																
1. mg/L = milligrams per liter																
2. ug/L = micrograms per liter																
3. mgCaCO ₃ /L= milligrams of calcium carbonate per liter																
4. µS/cm = microSiemens per centimeter																
5. mV = millivolts																
6. ORP = oxidation-reduction potential																
7. < = not detected at concentration																
8. Ferric iron = total iron minus ferrous iron; if total iron < ferrous iron, ferric iron is reported as 0																
9. PES = PES Environmental, Inc.																
10. SES = SoundEarth Strategies, Inc.																
11. Q = Sample was prepared and/or analyzed past recommended holding time.																
12. V = The sample concentration is too high to evaluate accurate spike recoveries.																

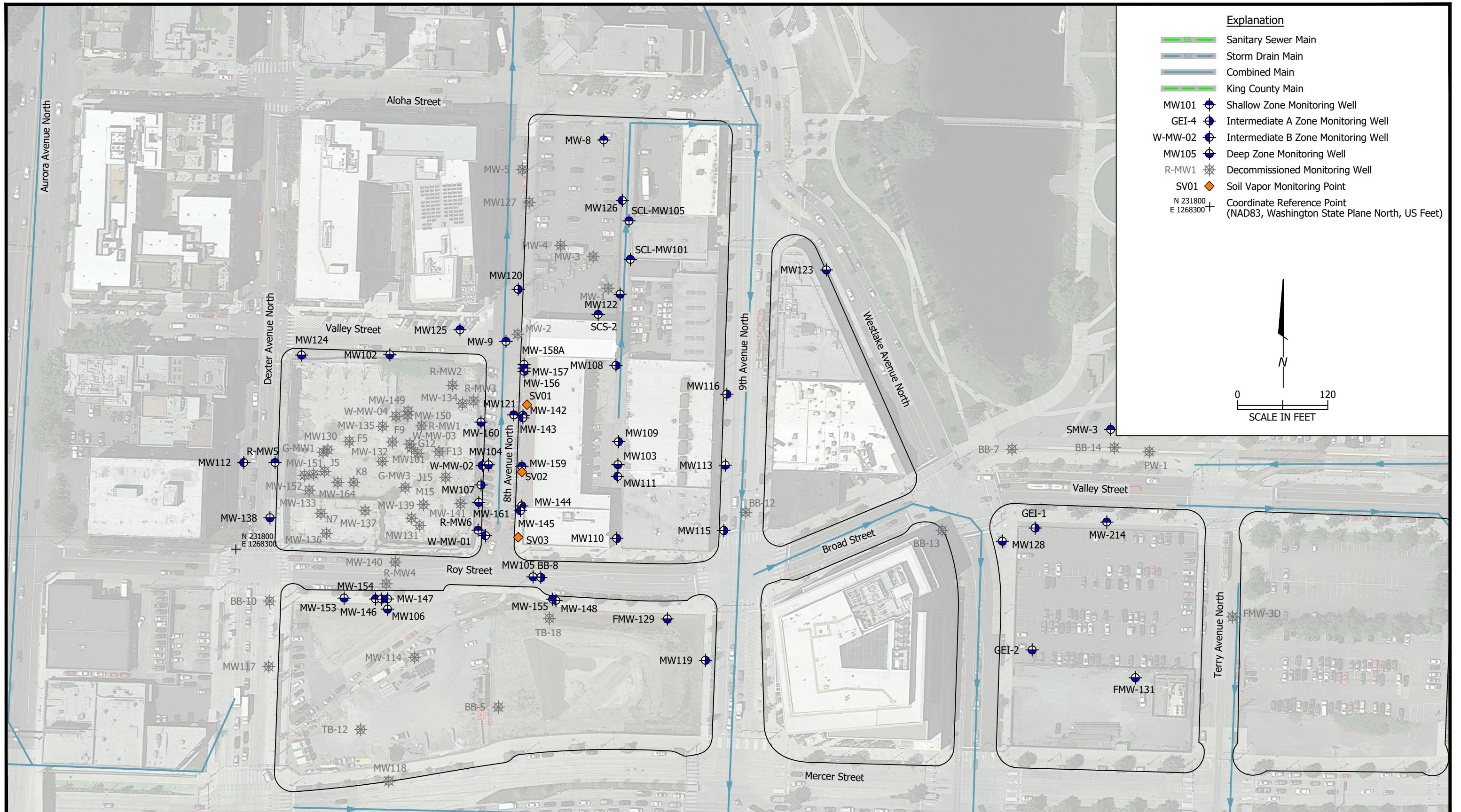
Table 7

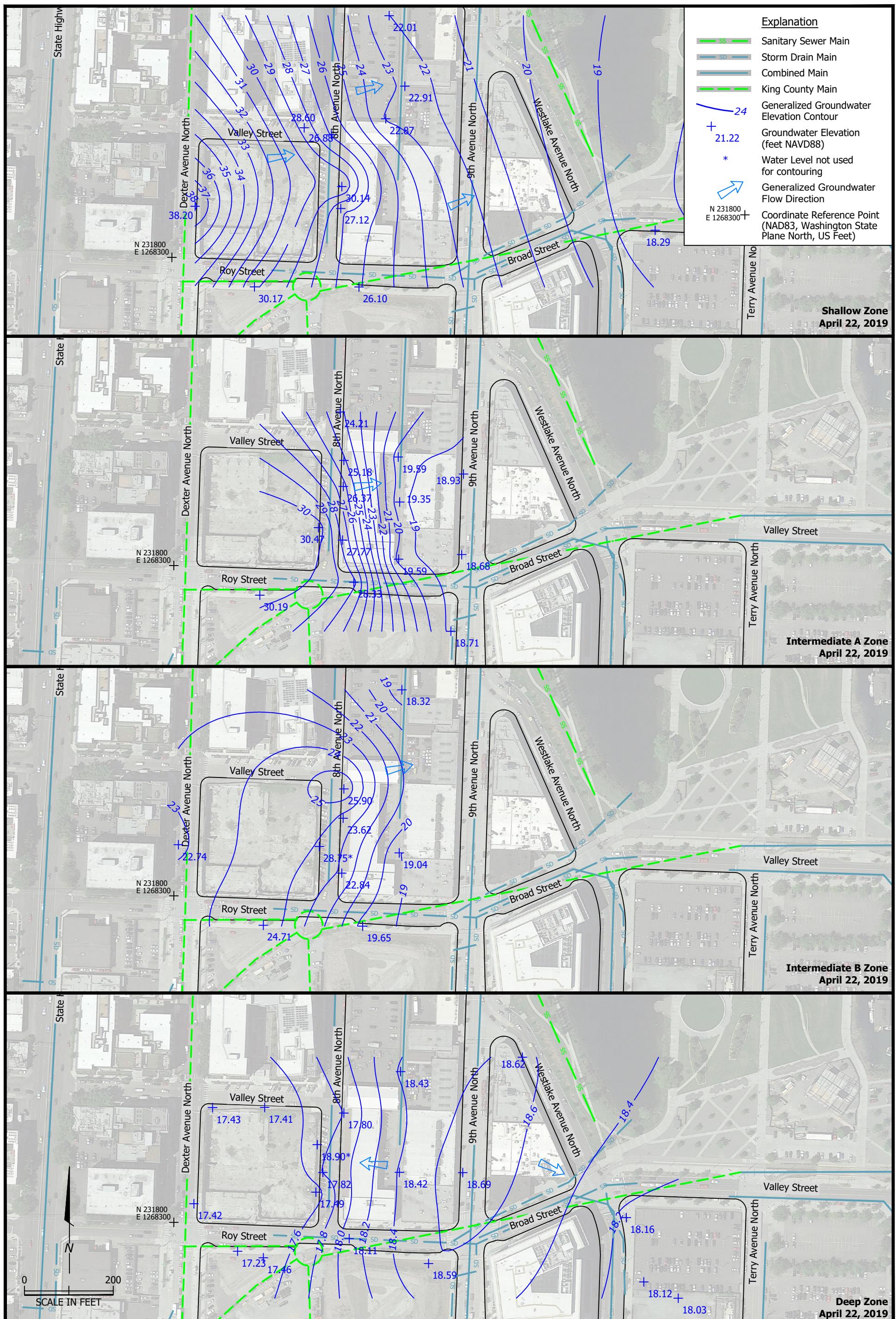
**Soil Vapor Analytical Results
Former American Linen Supply
700 Dexter Avenue North Seattle, Washington**

Sample Location	Sample Name	Sample Date	Analytical Results (micrograms per cubic meter)					
			PCE	TCE	cDCE	tDCE	VC	
MTCA Method B Soil Gas Screening Level			321	12	—	—	9.3	
SV01	SV01-20130311	03/05/13	1.5	0.16 U	0.31	0.58 U	0.71	
	SV01-092518	09/25/18	2.72 UJ	2.14 U	1.59 U	1.59 U	1.02 U	
	SV01-092518-D	09/25/18	137 J	2.14 U	1.59 U	1.59 U	1.02 U	
	SV01-020619	02/06/19	2.72 U	2.14 U	1.59 U	1.59 U	1.02 U	
	SV01-042919	04/29/19	2.72 U	2.14 U	1.59 U	1.59 U	1.02 U	
	SV01-042919-D	04/29/19	2.72 U	2.14 U	1.59 U	1.59 U	1.02 U	
SV02	SV02-20130311	03/05/13	2.3	0.17 U	0.12 U	0.61 U	0.04 U	
	SV02-092518	09/25/18	2.72 U	2.14 U	1.59 U	1.59 U	1.02 U	
	SV02-020619	02/06/19	2.72 U	2.14 U	1.59 U	1.59 U	1.02 U	
	SV02-042919	04/29/19	2.72 U	2.14 U	1.59 U	1.59 U	1.02 U	
SV03	SV03-20130311	03/05/13	4.6	0.39	0.12 U	0.58 U	0.037 U	
	SV03-092518	09/25/18	2.72 U	2.14 U	1.59 U	1.59 U	1.02 U	
	SV03-020619	02/06/19	2.72 U	2.14 U	1.59 U	1.59 U	1.02 U	
	SV03-042919	04/29/19	2.72 U	2.14 U	1.59 U	1.59 U	1.02 U	

Notes:

1. Laboratory analyses conducted by Air Toxics Ltd. of Folsom, CA (2013 samples) and Pace Analytical of Mount Juliet, TN (2018 samples)
 2. VOCs analyzed by U.S. Environmental Protection Agency Method Modified TO-15 Low Level Analysis.
 3. PCE = perchloroethylene (tetrachloroethene)
 4. TCE = trichloroethene
 5. cDCE = cis-1,2-dichloroethene
 6. tDCE = trans-1,2-dichloroethene
 7. VC = vinyl chloride
 8. Detected results shown in bold, detections exceeding MTCA Method B sub-slab screening levels highlighted in gray
 9. U = not detected at a concentration exceeding laboratory reporting limit
 10. MTCA = Washington State Model Toxics Control Act
 11. — = screening level not established

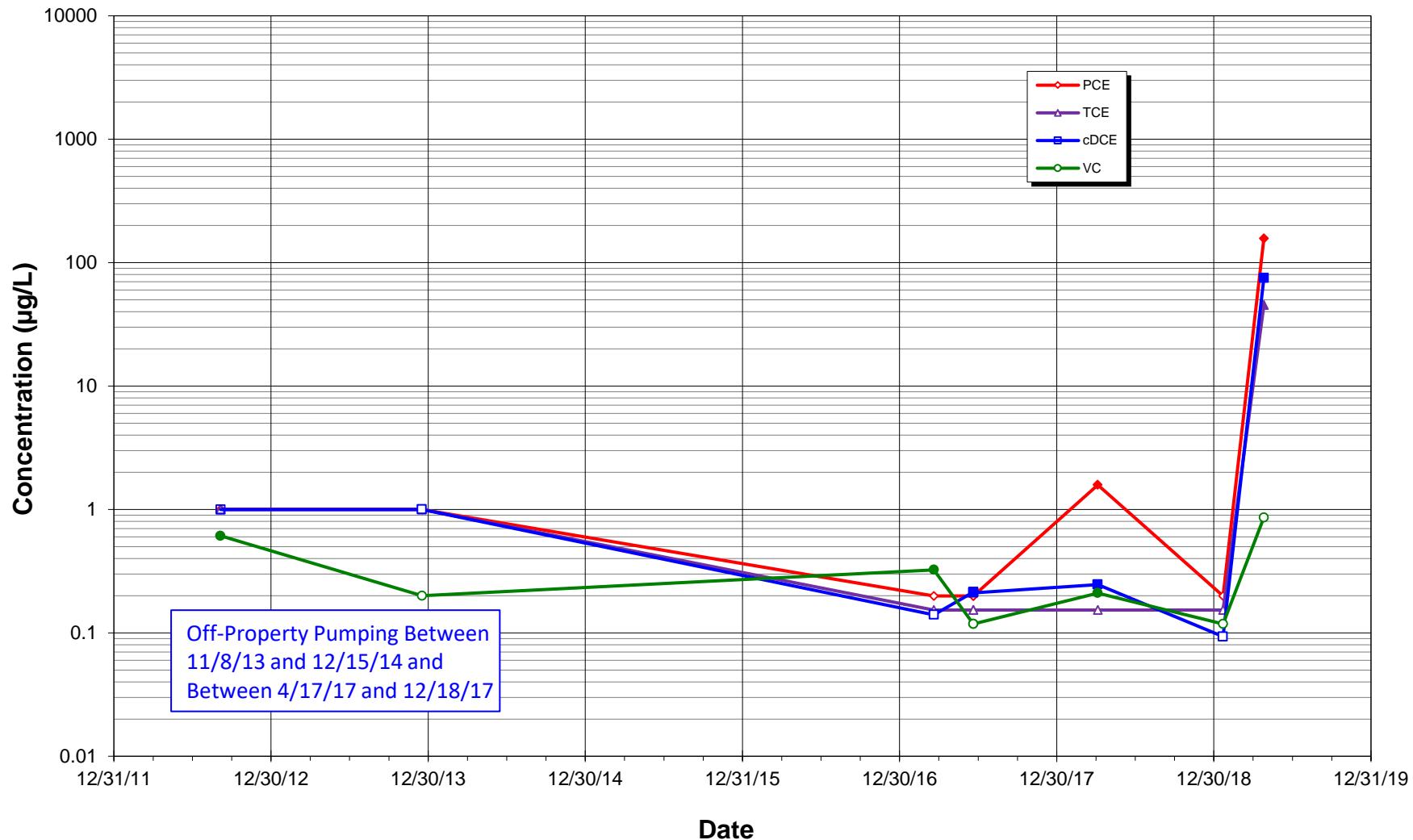




PES Environmental, Inc.
Engineering & Environmental Services

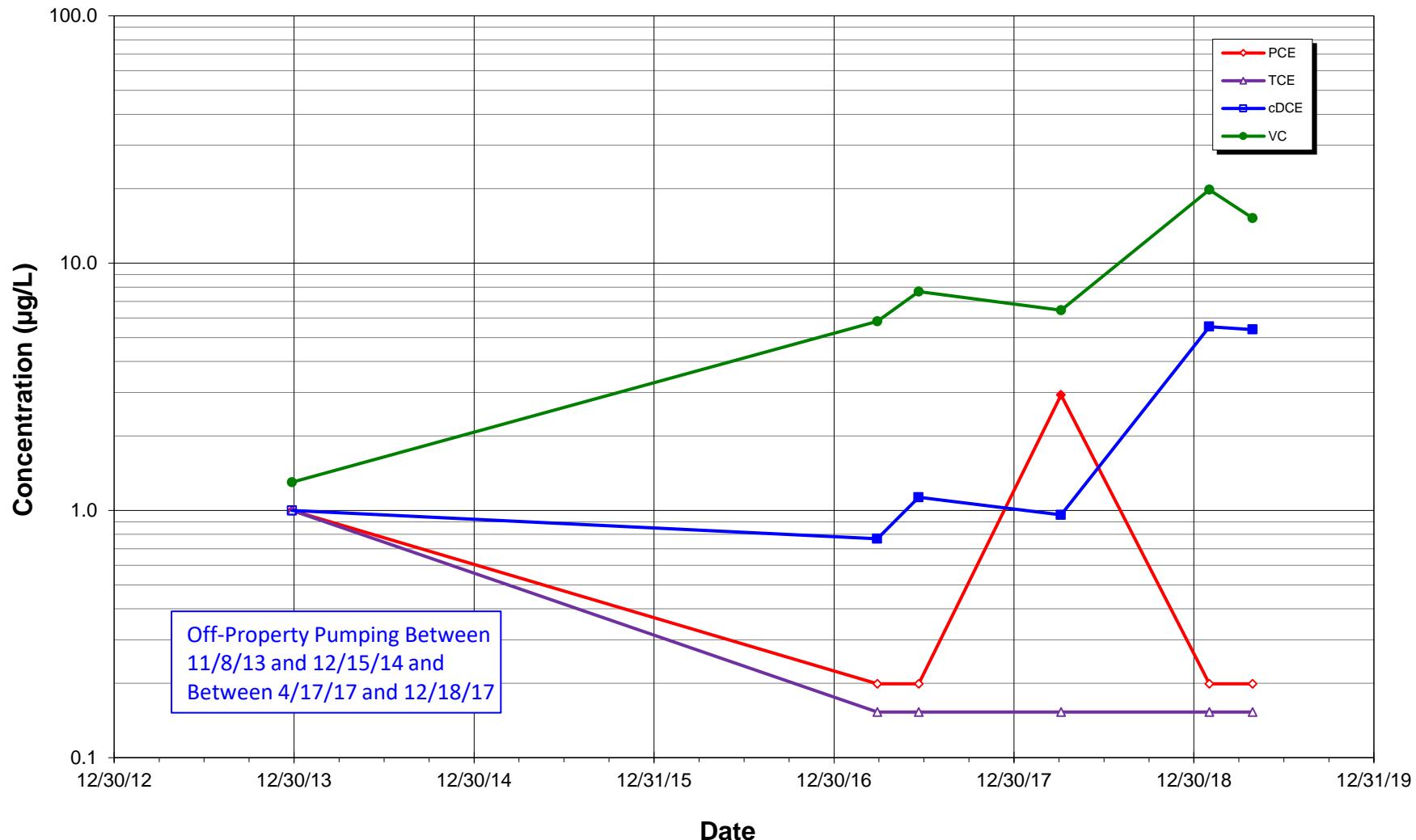
Attachment A
Shallow Well Time-Trend Plots

Concentration vs Time
MW-9
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

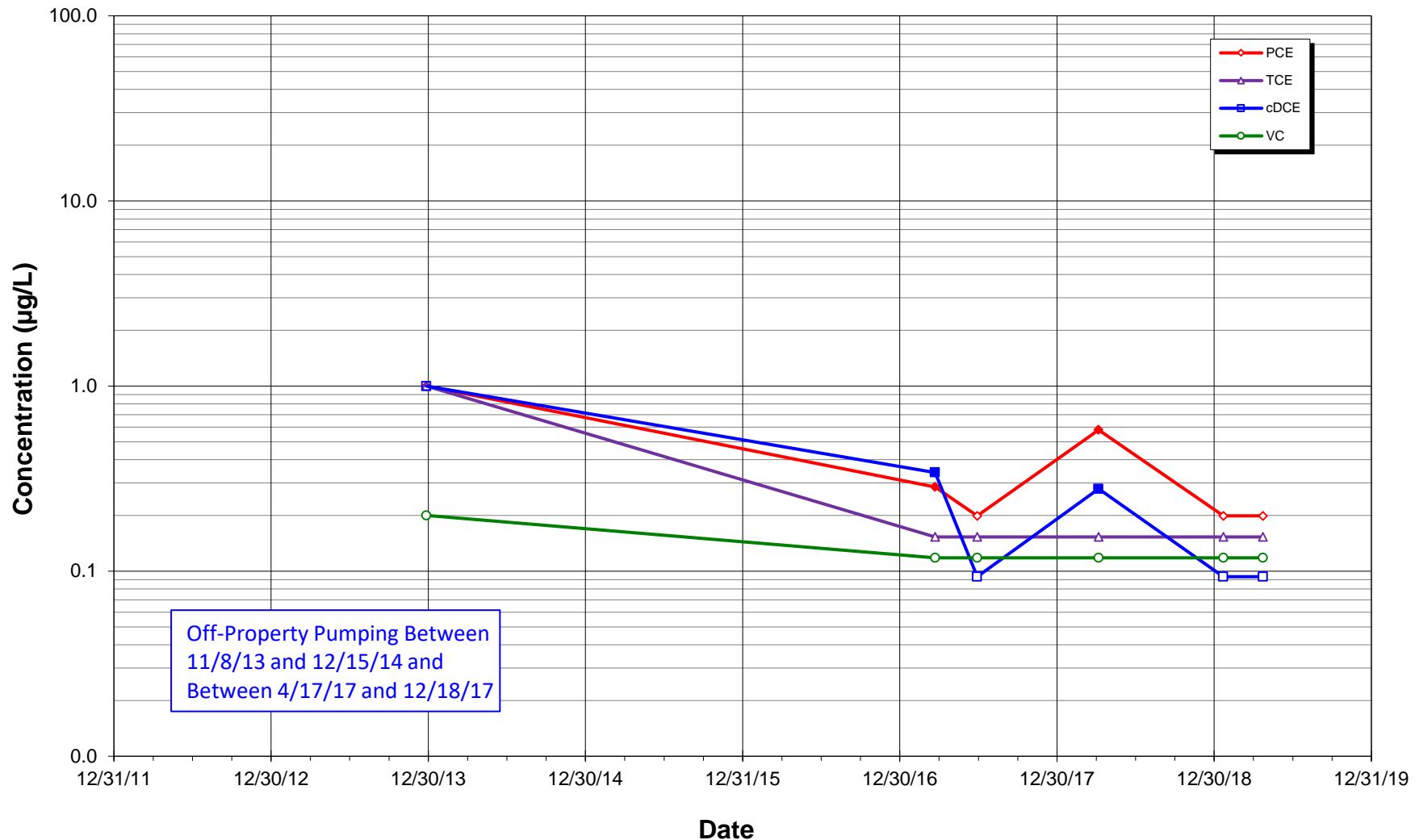
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 µg/L, TCE = 1 µg/L, cDCE = 16 µg/L, and VC = 0.2 µg/L.

Concentration vs Time
MW121
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

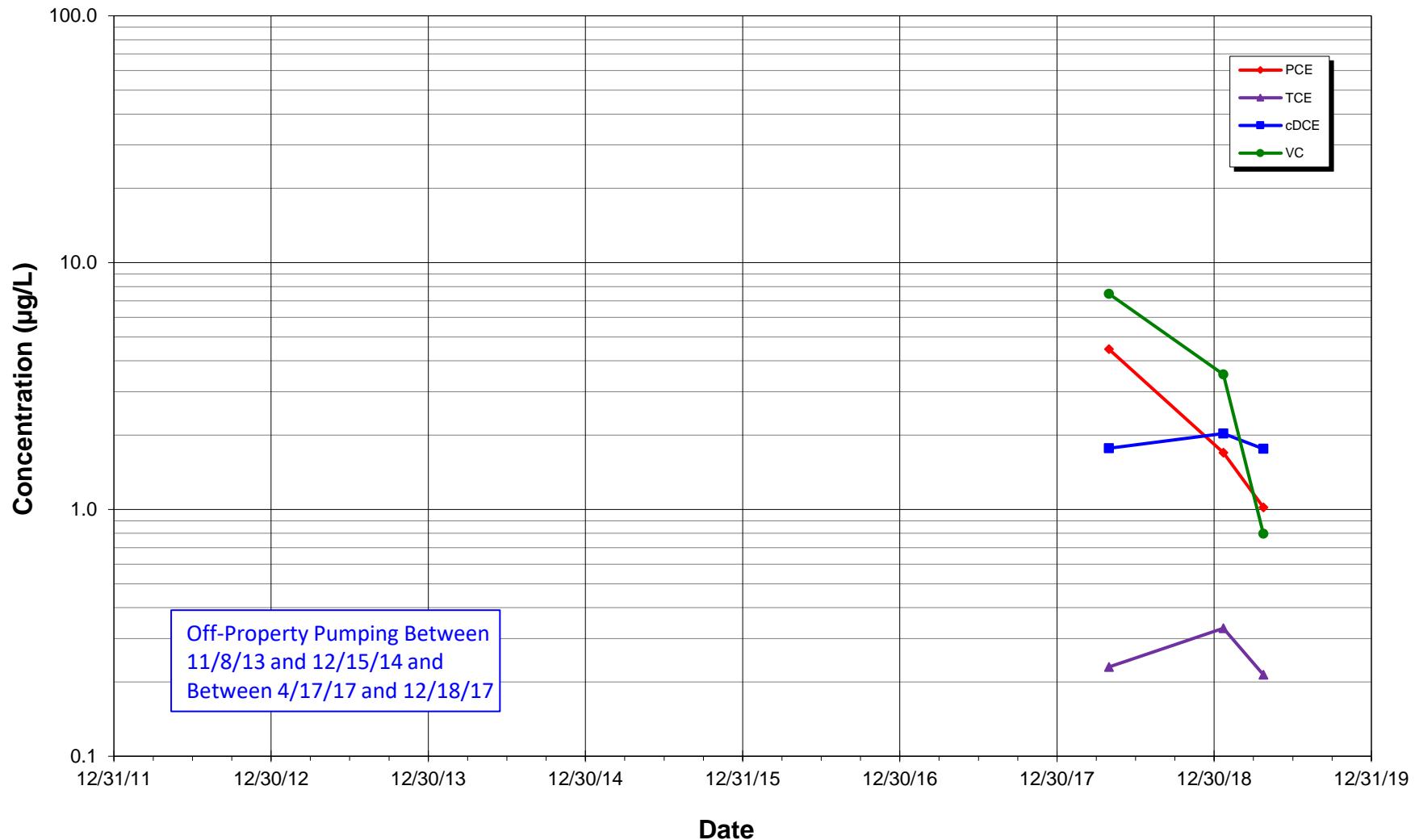
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

Concentration vs Time
MW125
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

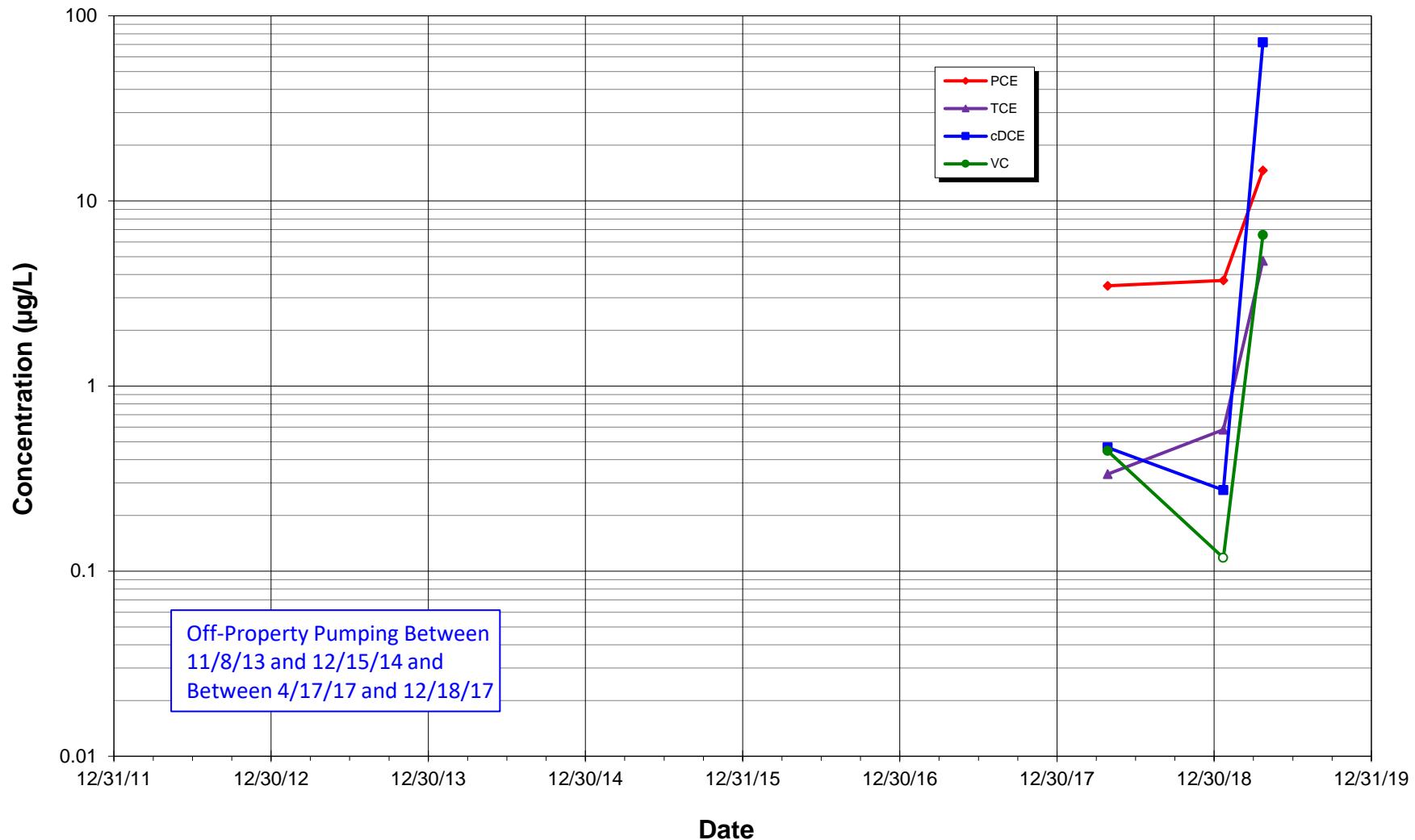
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g}/\text{L}$, TCE = 1 $\mu\text{g}/\text{L}$, cDCE = 16 $\mu\text{g}/\text{L}$, and VC = 0.2 $\mu\text{g}/\text{L}$.

Concentration vs Time
MW-154
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

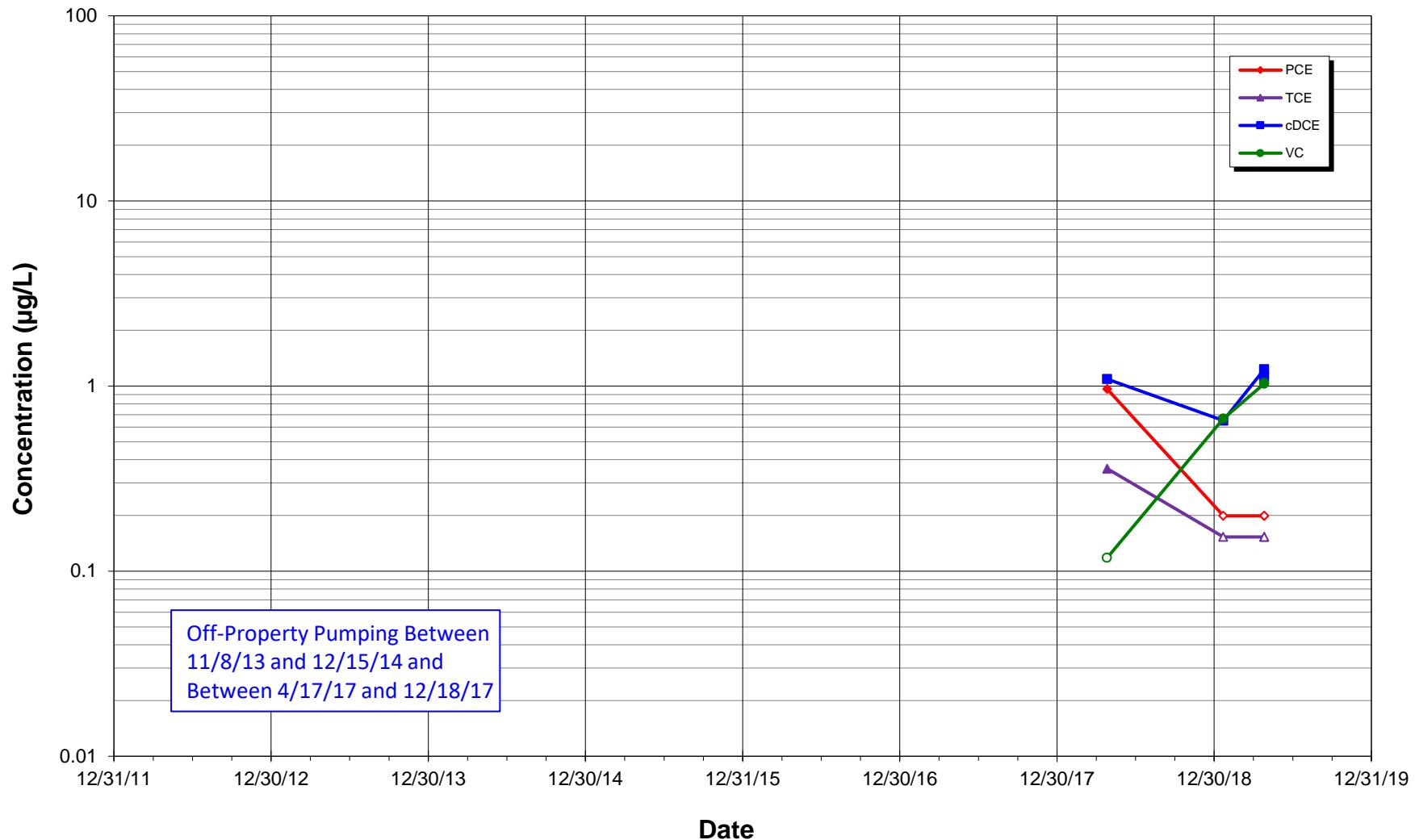
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

Concentration vs Time
MW-155
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

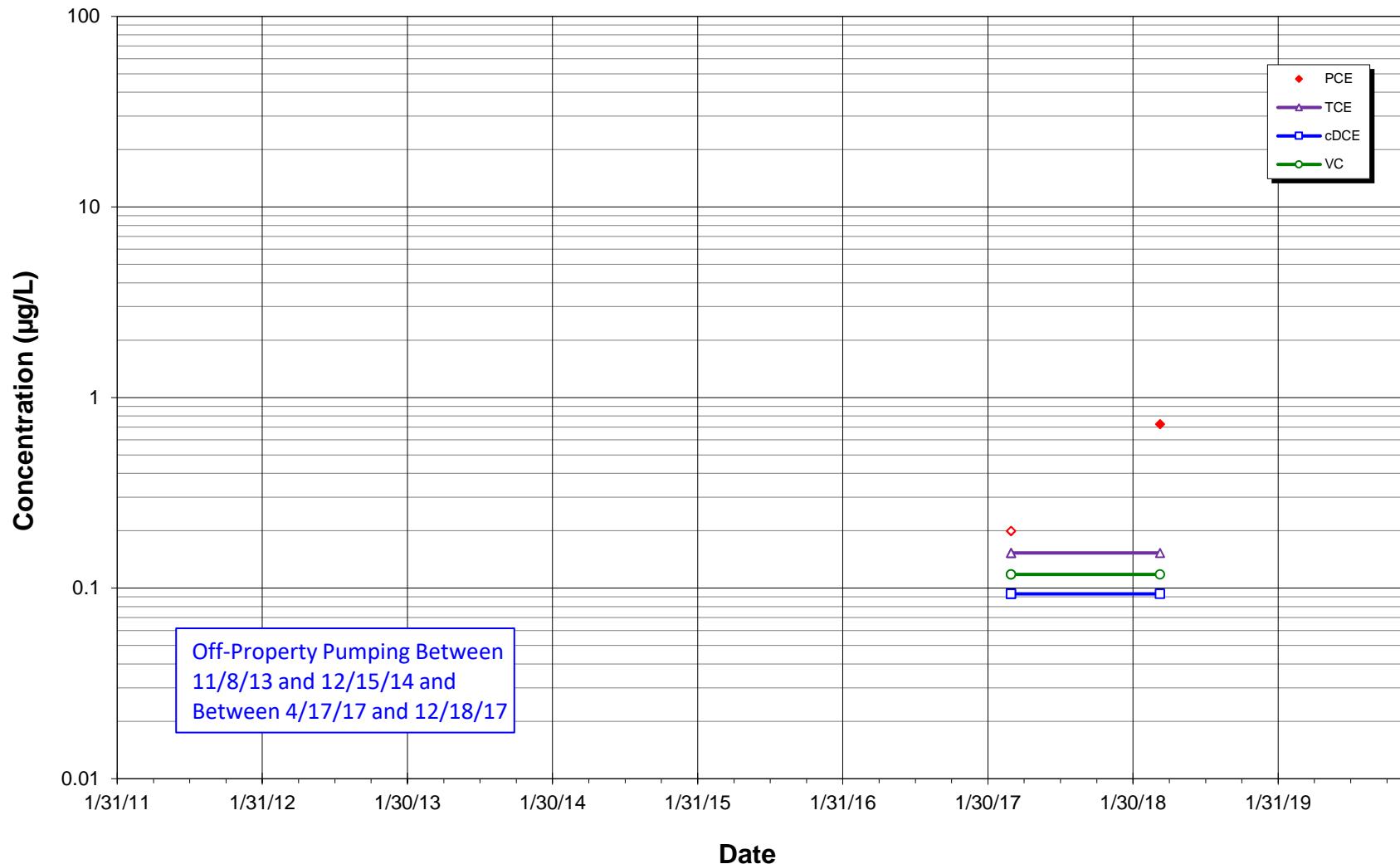
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

Concentration vs Time
MW-159
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

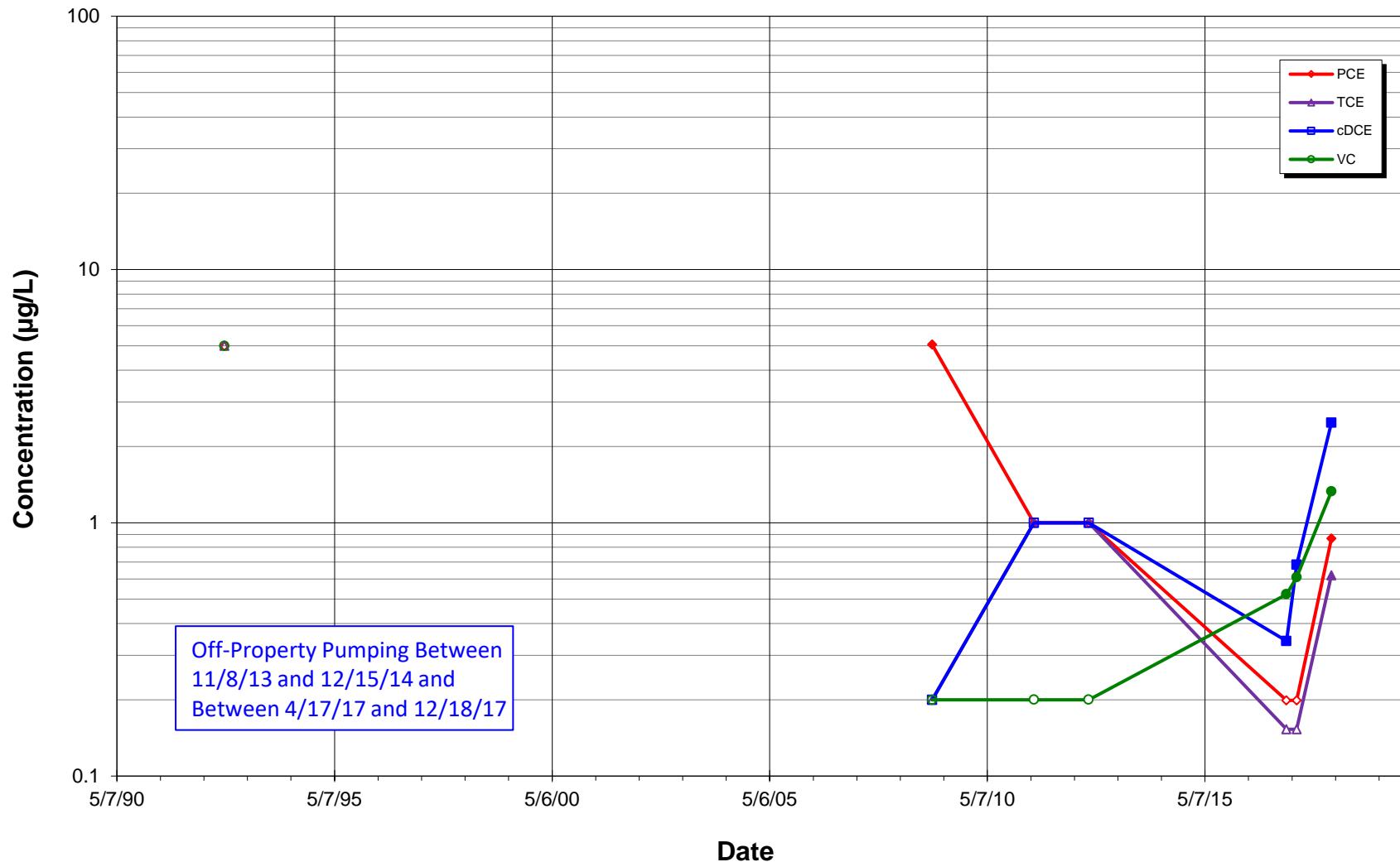
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

Concentration vs Time
MW-214
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

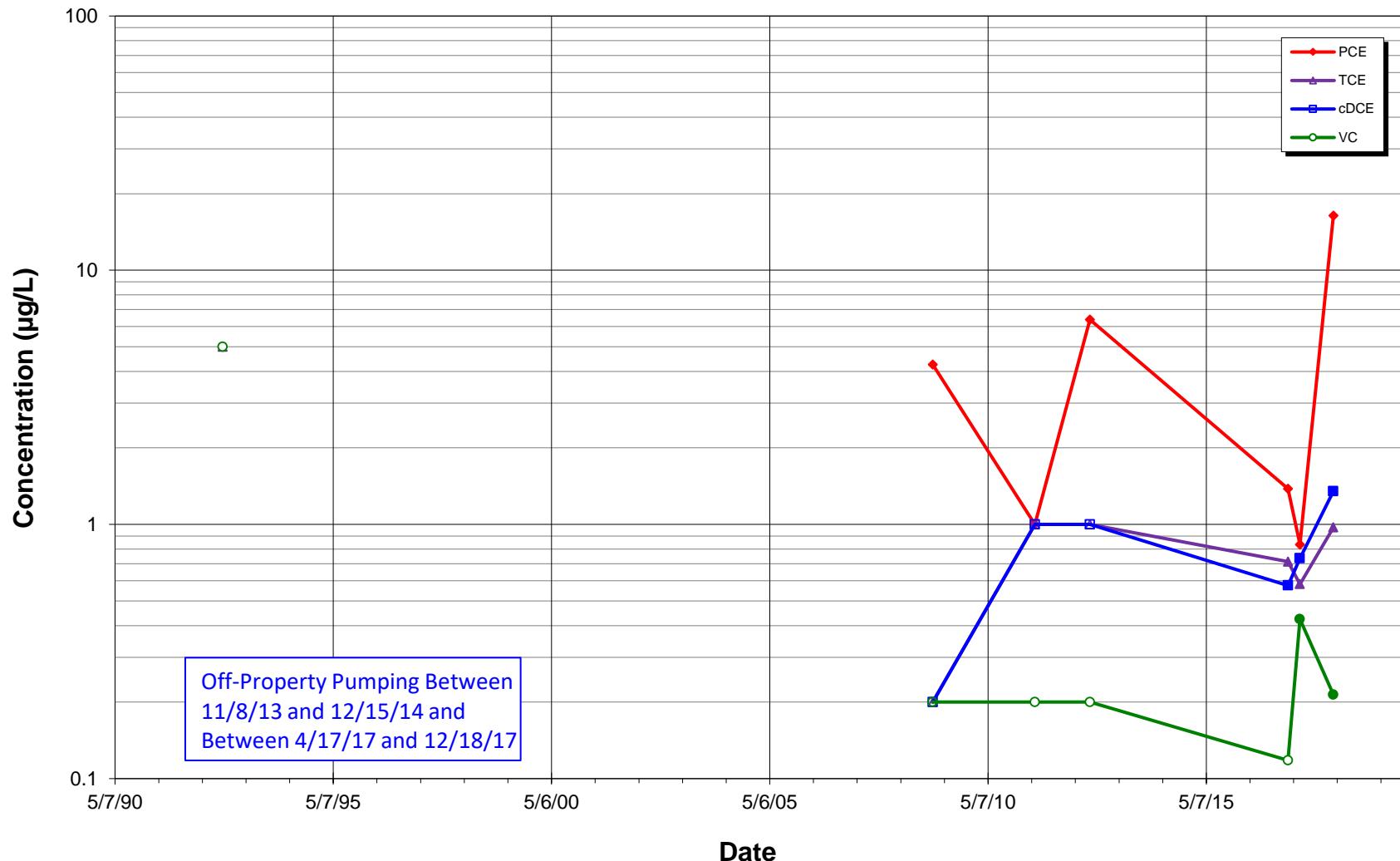
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 µg/L, TCE = 1 µg/L, cDCE = 16 µg/L, and VC = 0.2 µg/L.

Concentration vs Time
R-MW2
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

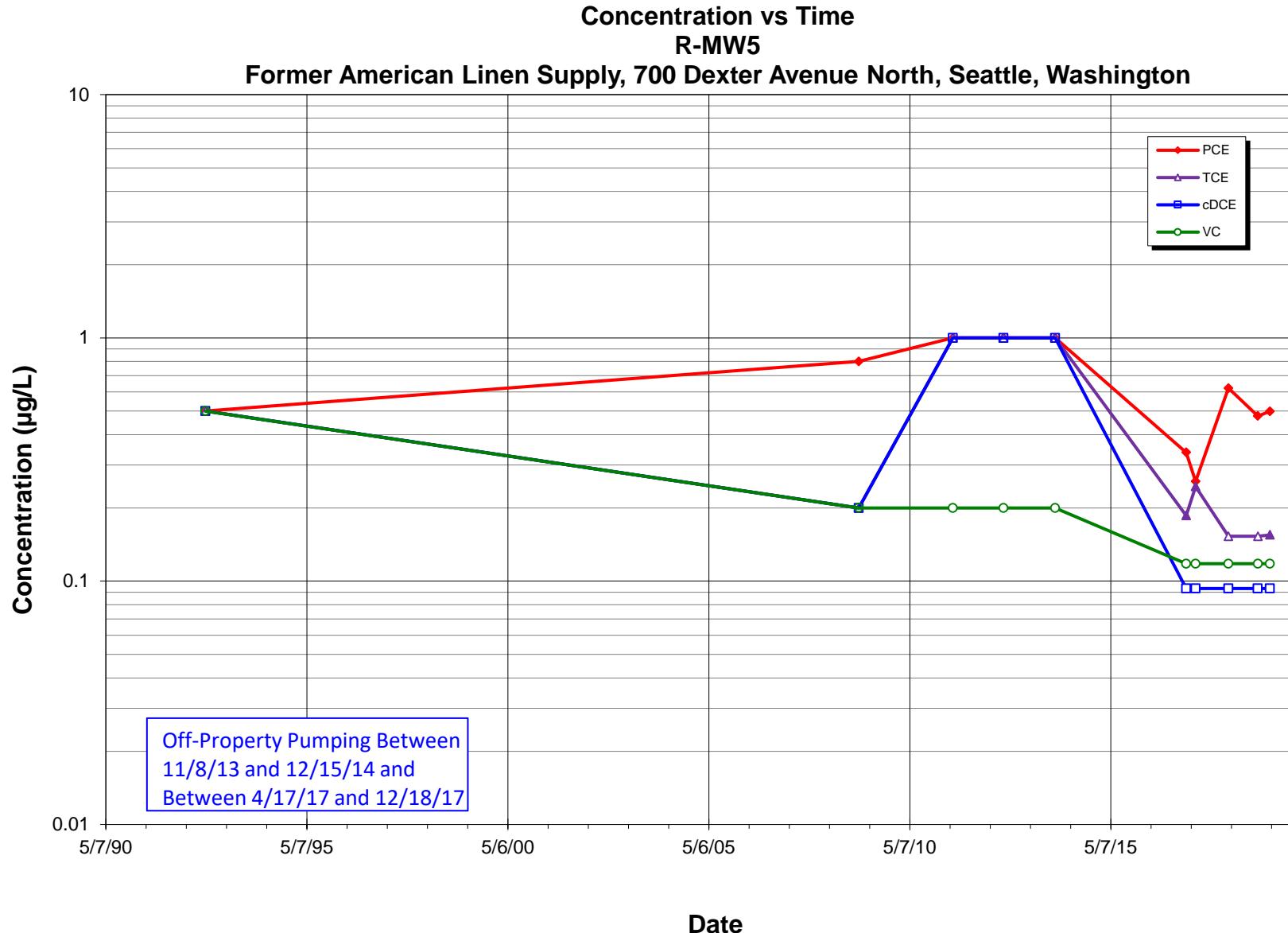
**Notes:**

- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 µg/L, TCE = 1 µg/L, cDCE = 16 µg/L, and VC = 0.2 µg/L.

Concentration vs Time
R-MW3
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

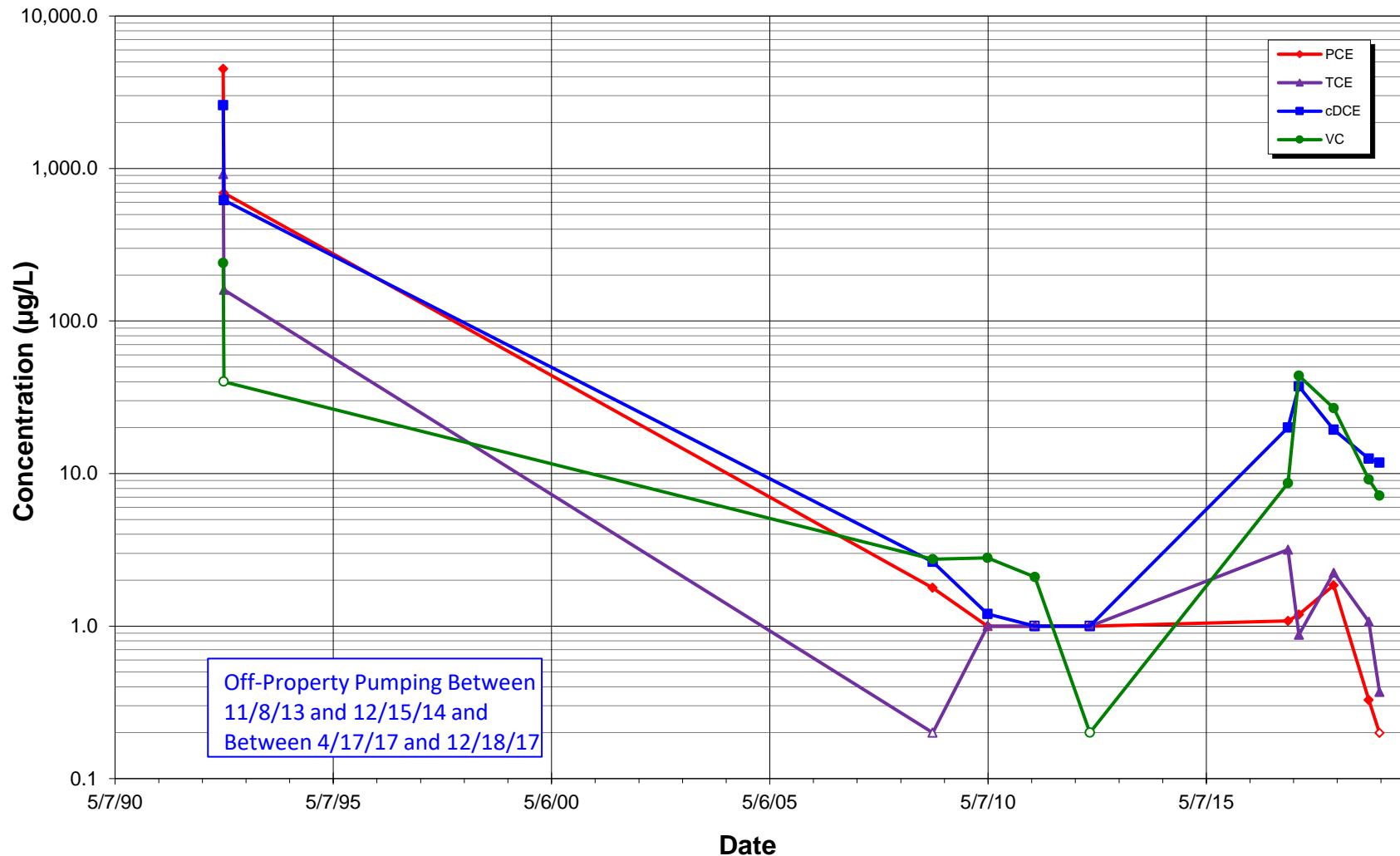
**Notes:**

- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

**Notes:**

- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

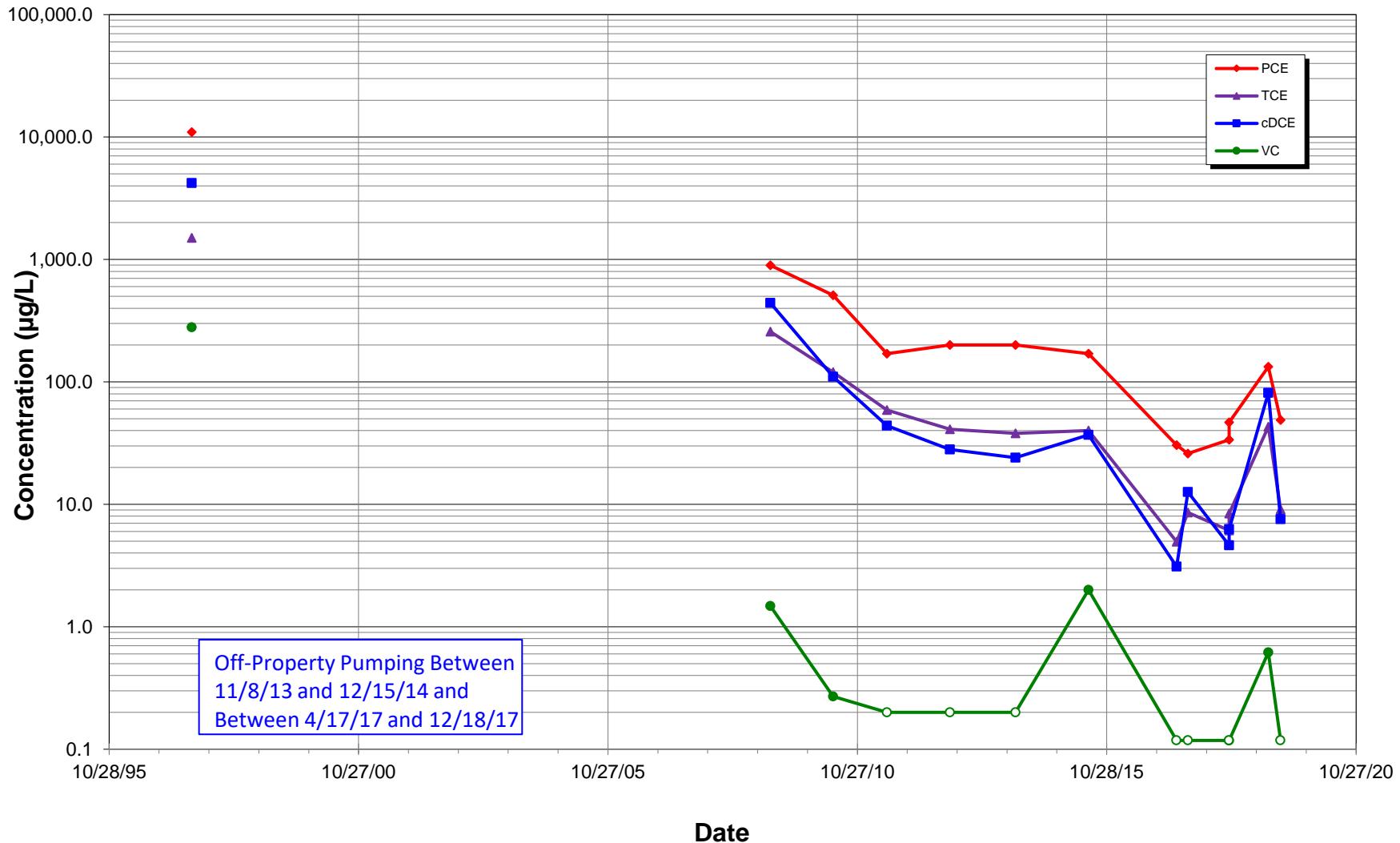
Concentration vs Time
R-MW6
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

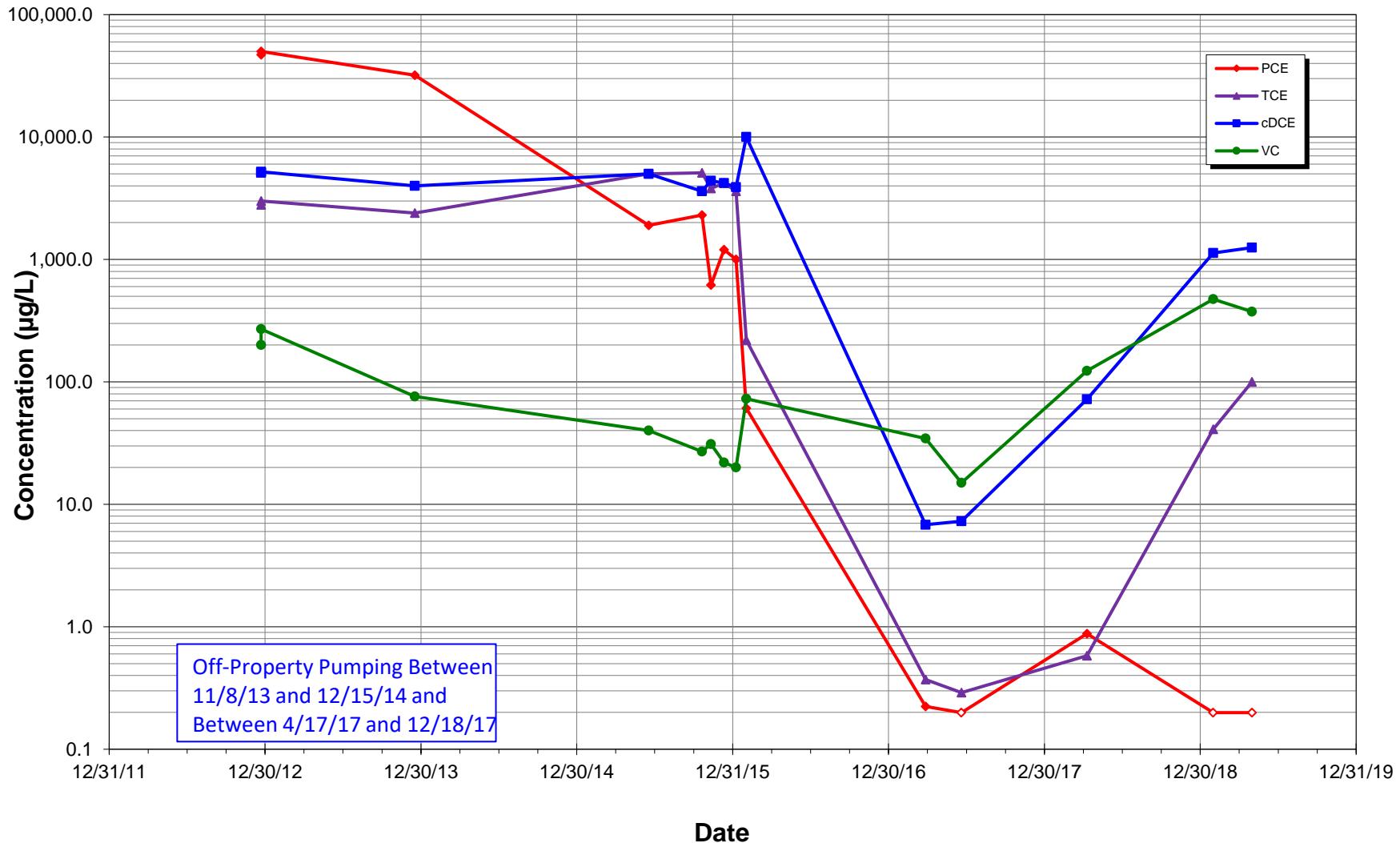
Attachment A
Intermediate Well Time-Trend Plots

Concentration vs Time
BB-8
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

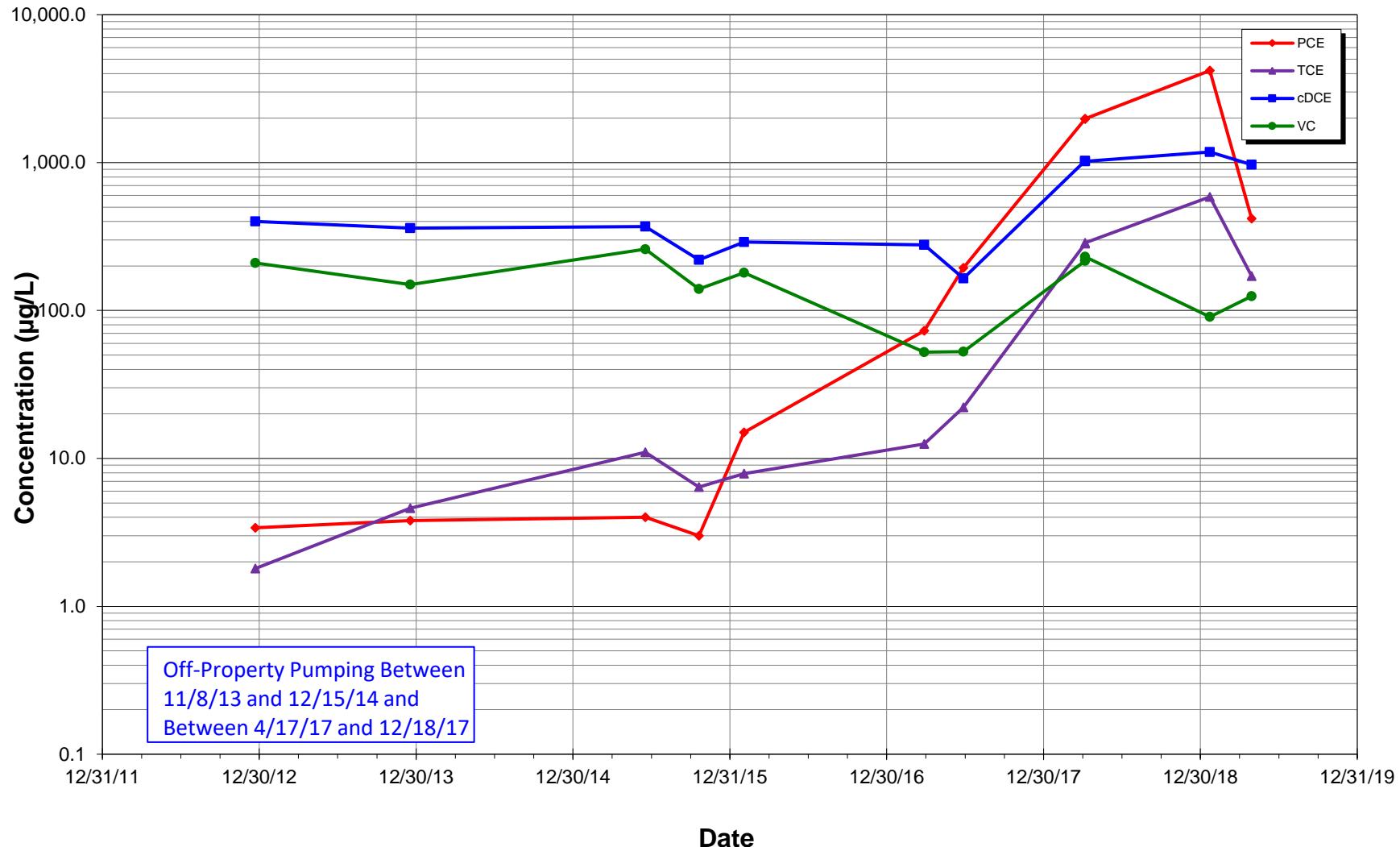
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

Concentration vs Time
MW107
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

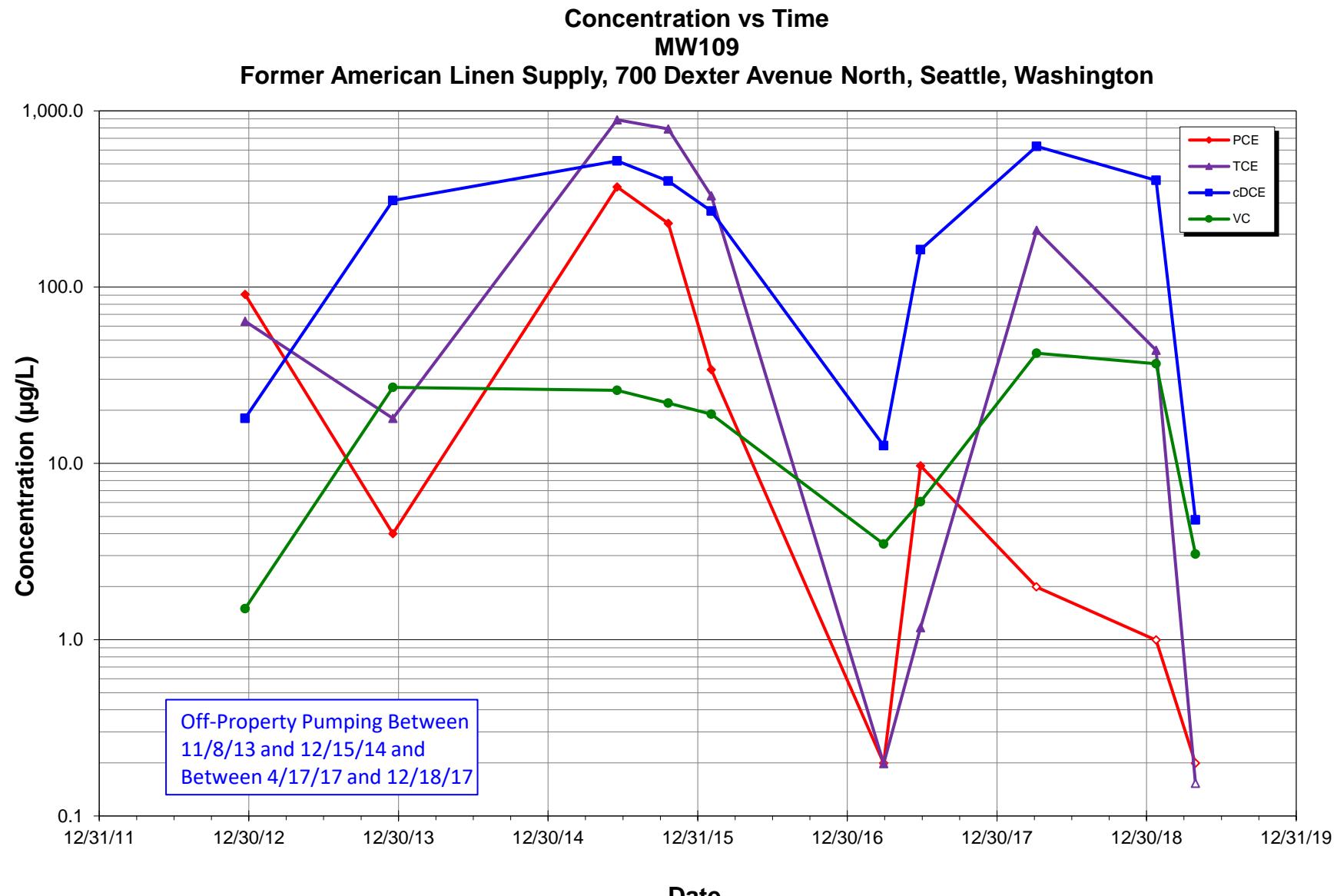
**Notes:**

- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

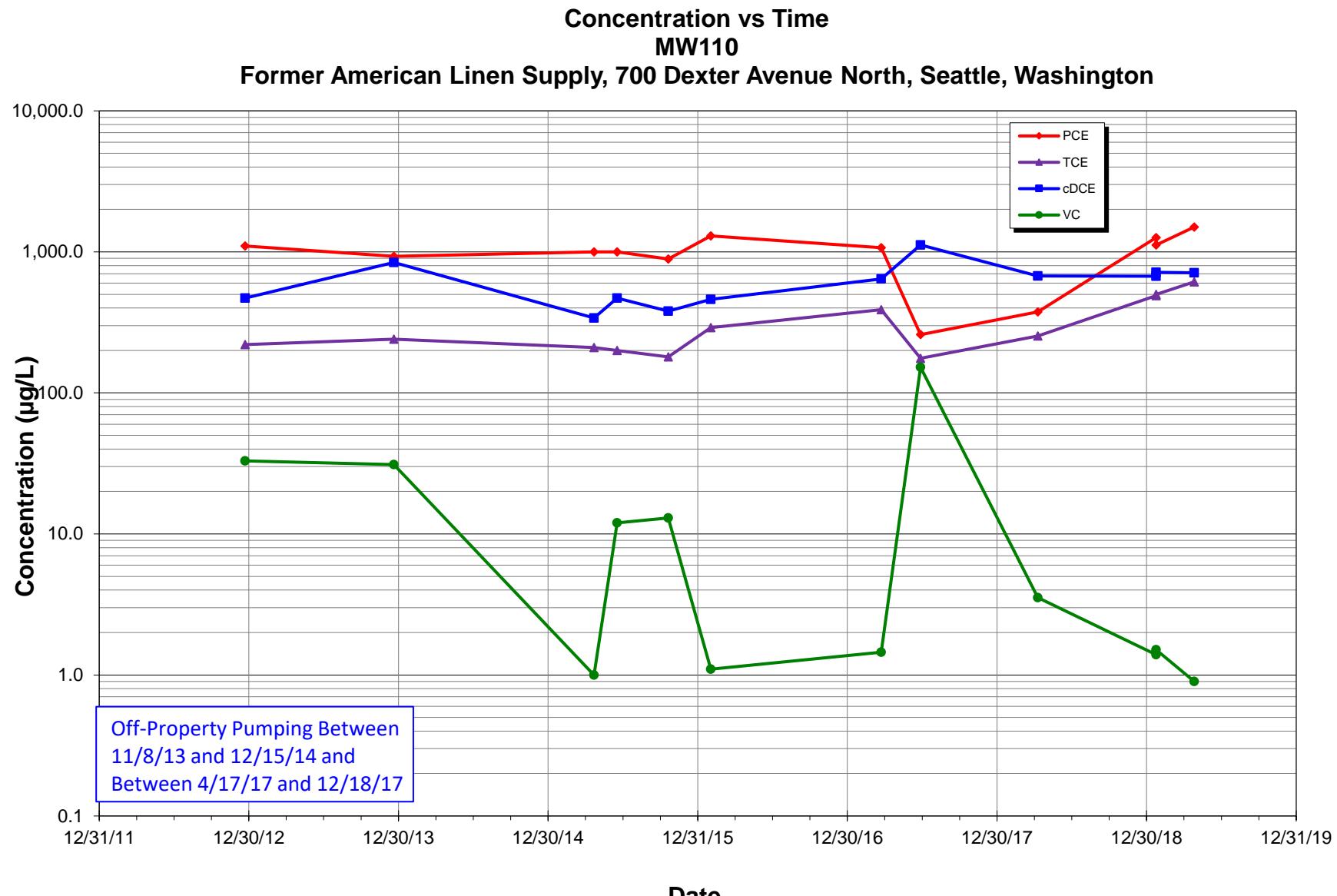
Concentration vs Time
MW108
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

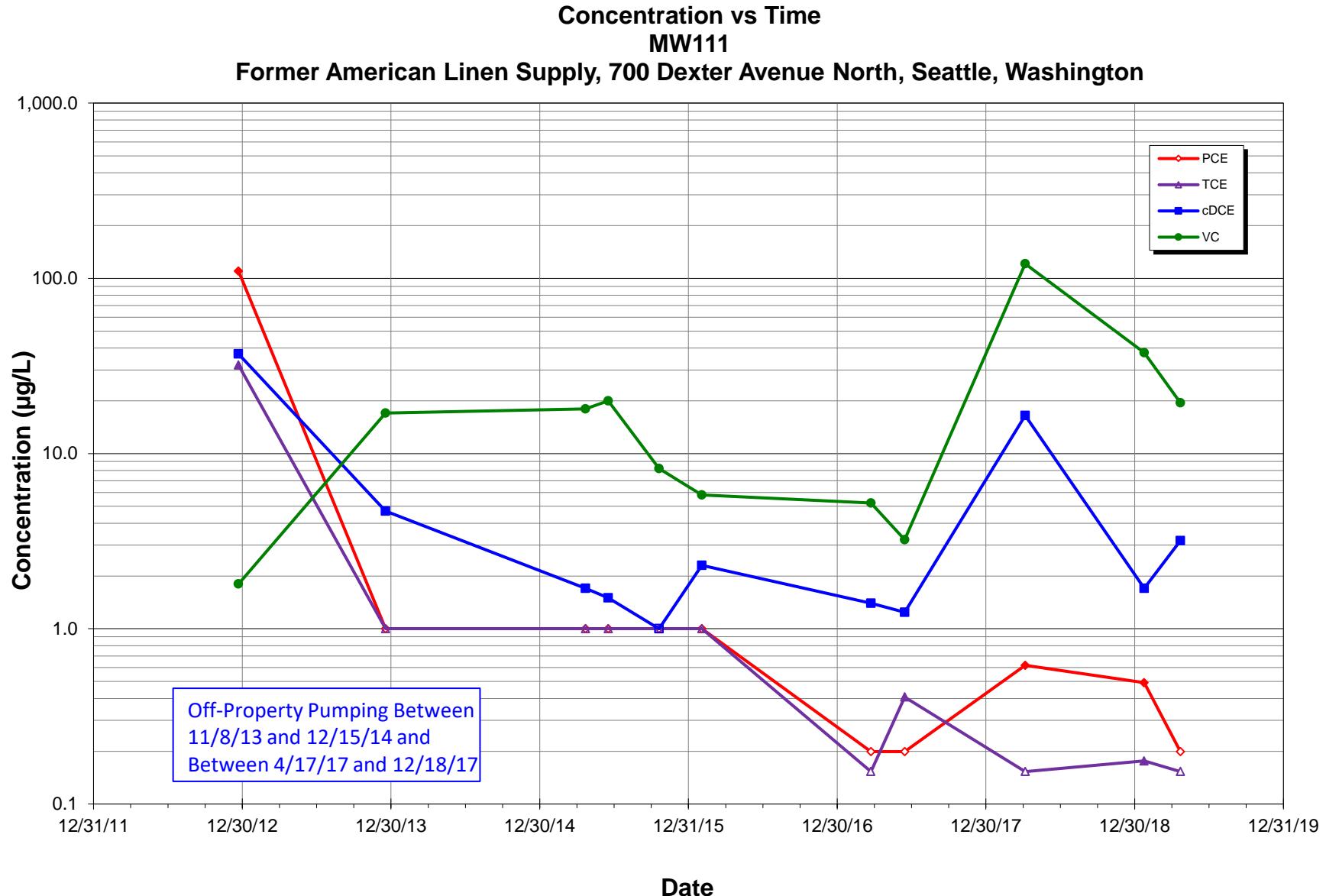
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g}/\text{L}$, TCE = 1 $\mu\text{g}/\text{L}$, cDCE = 16 $\mu\text{g}/\text{L}$, and VC = 0.2 $\mu\text{g}/\text{L}$.

**Notes:**

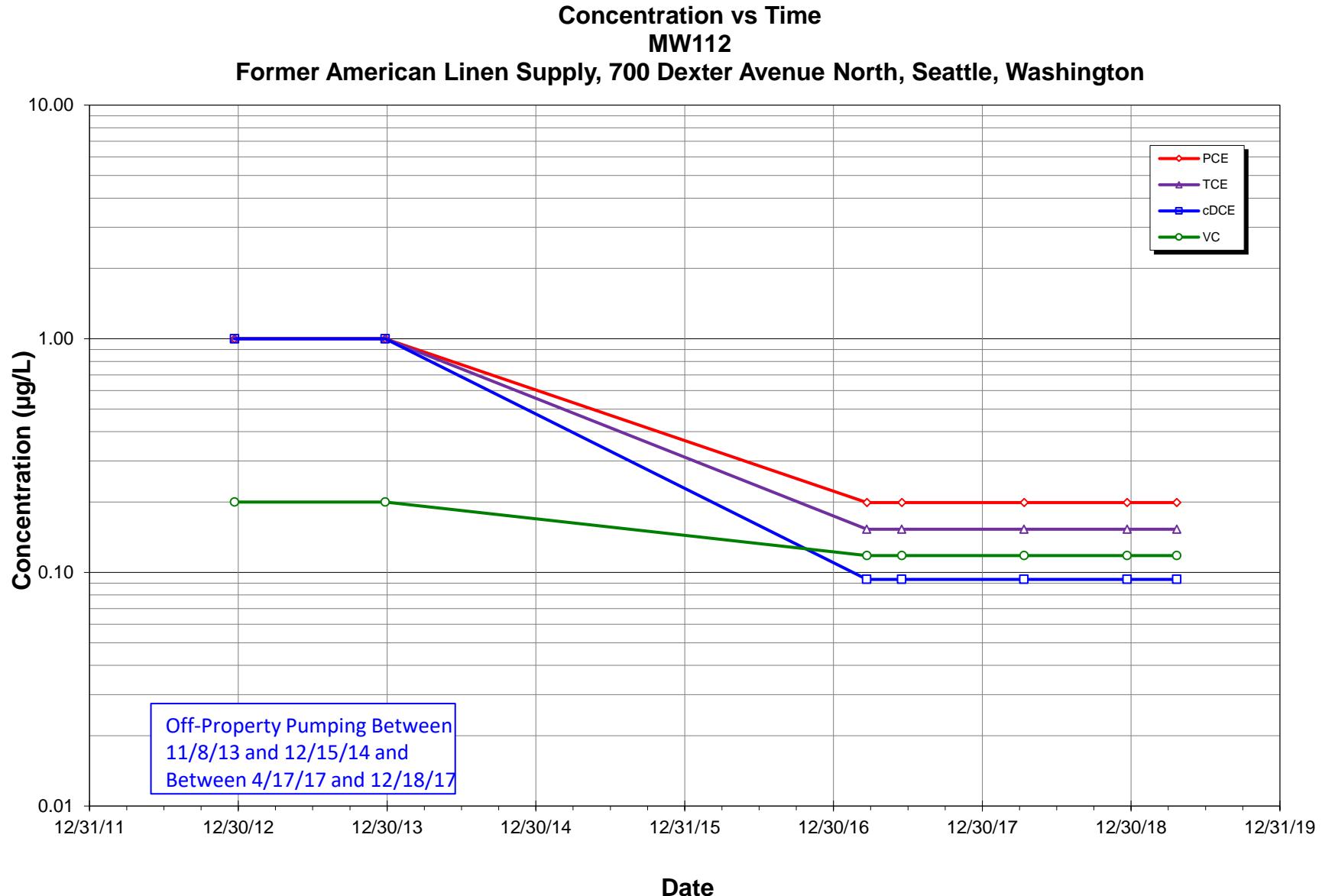
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

**Notes:**

- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

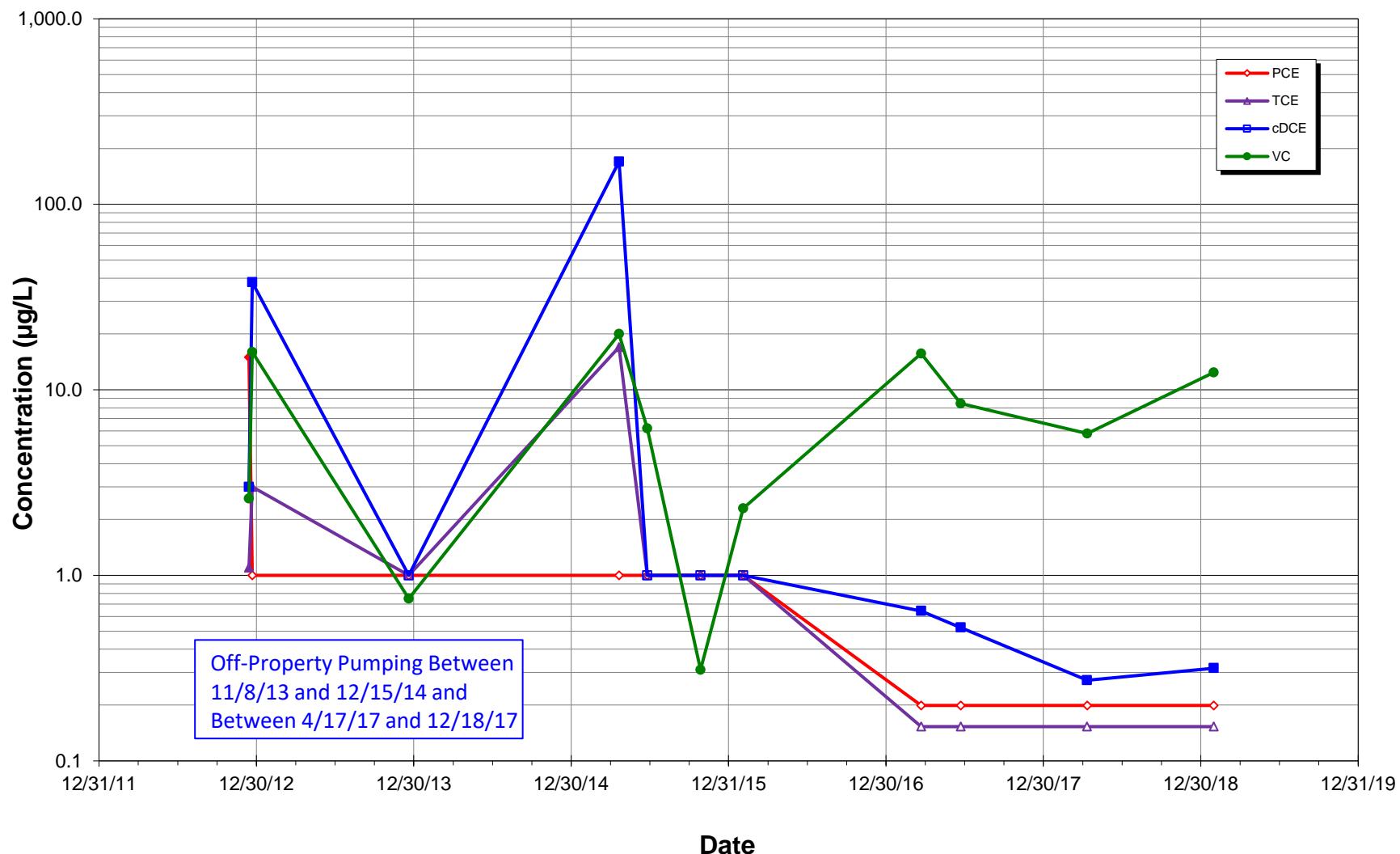
**Notes:**

- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

**Notes:**

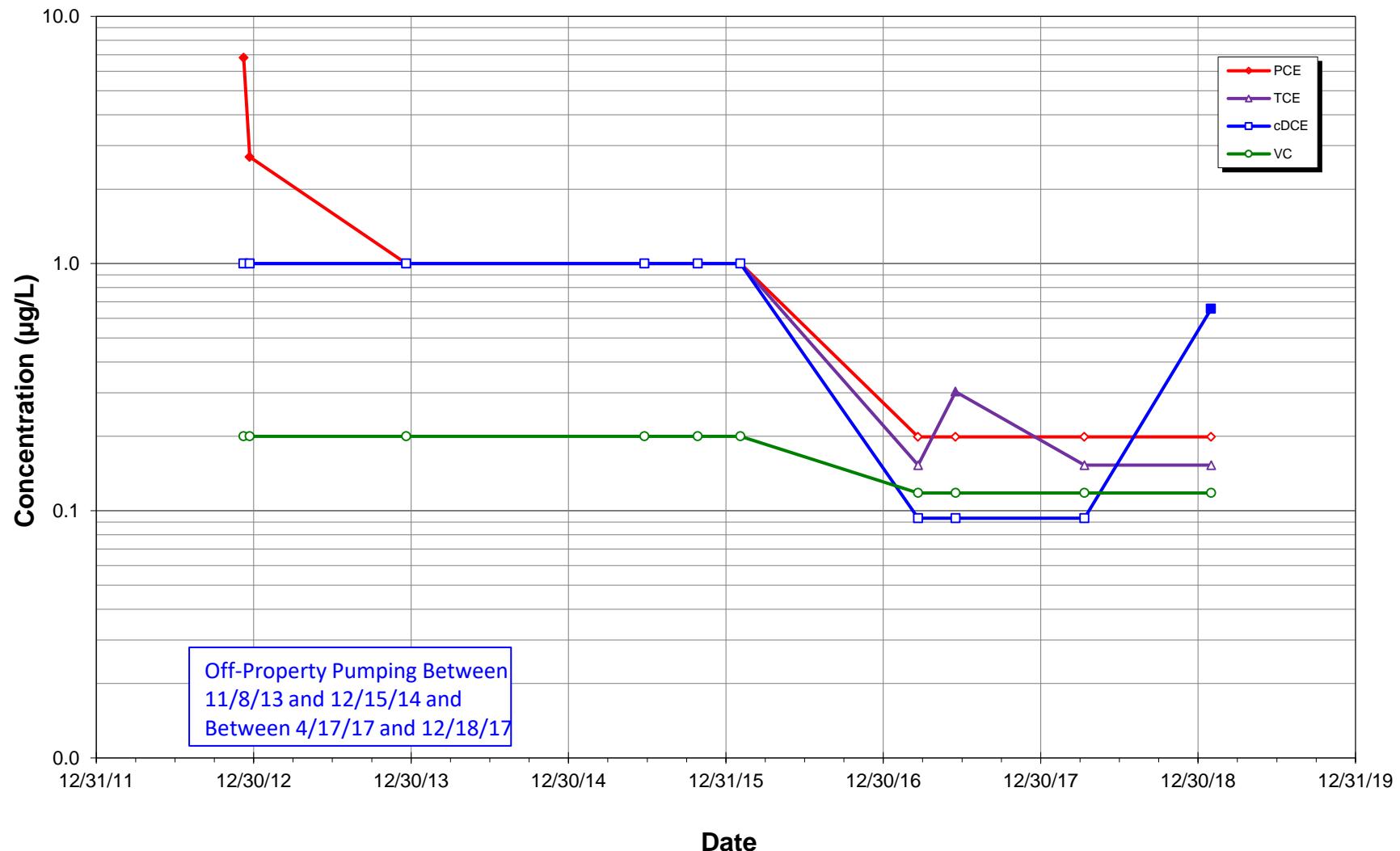
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

Concentration vs Time
MW115
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

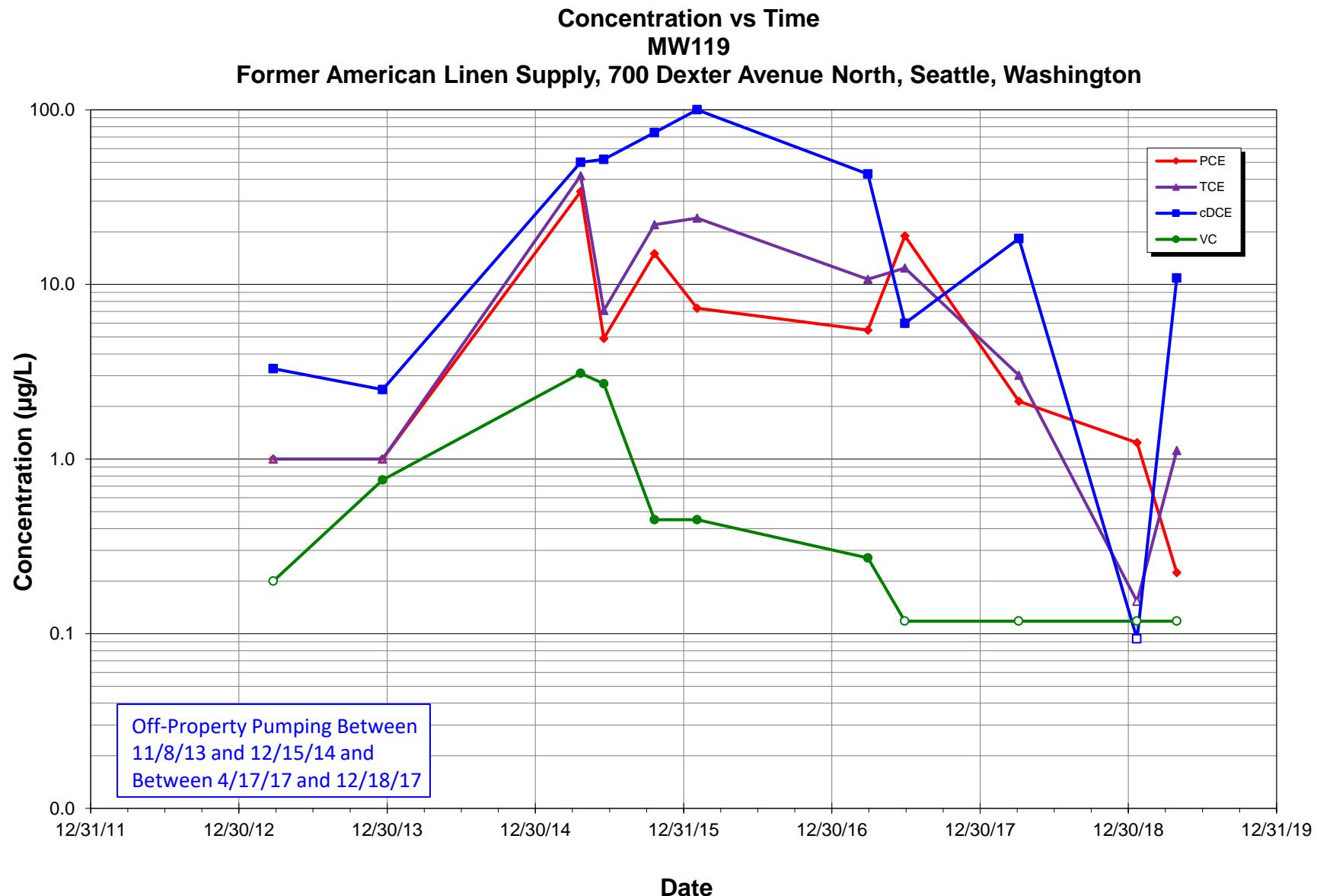
**Notes:**

- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

Concentration vs Time
MW116
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

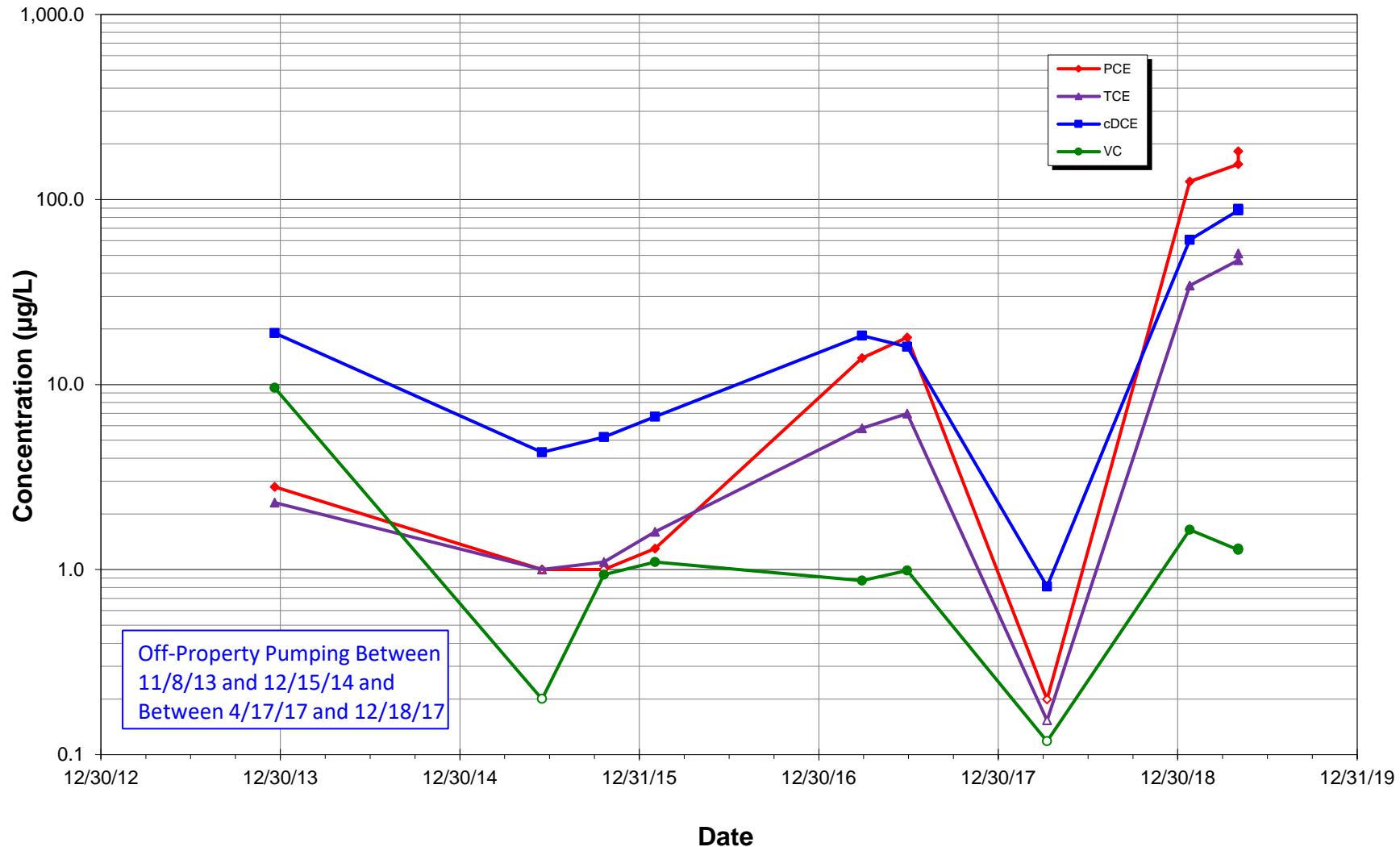
**Notes:**

- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

**Notes:**

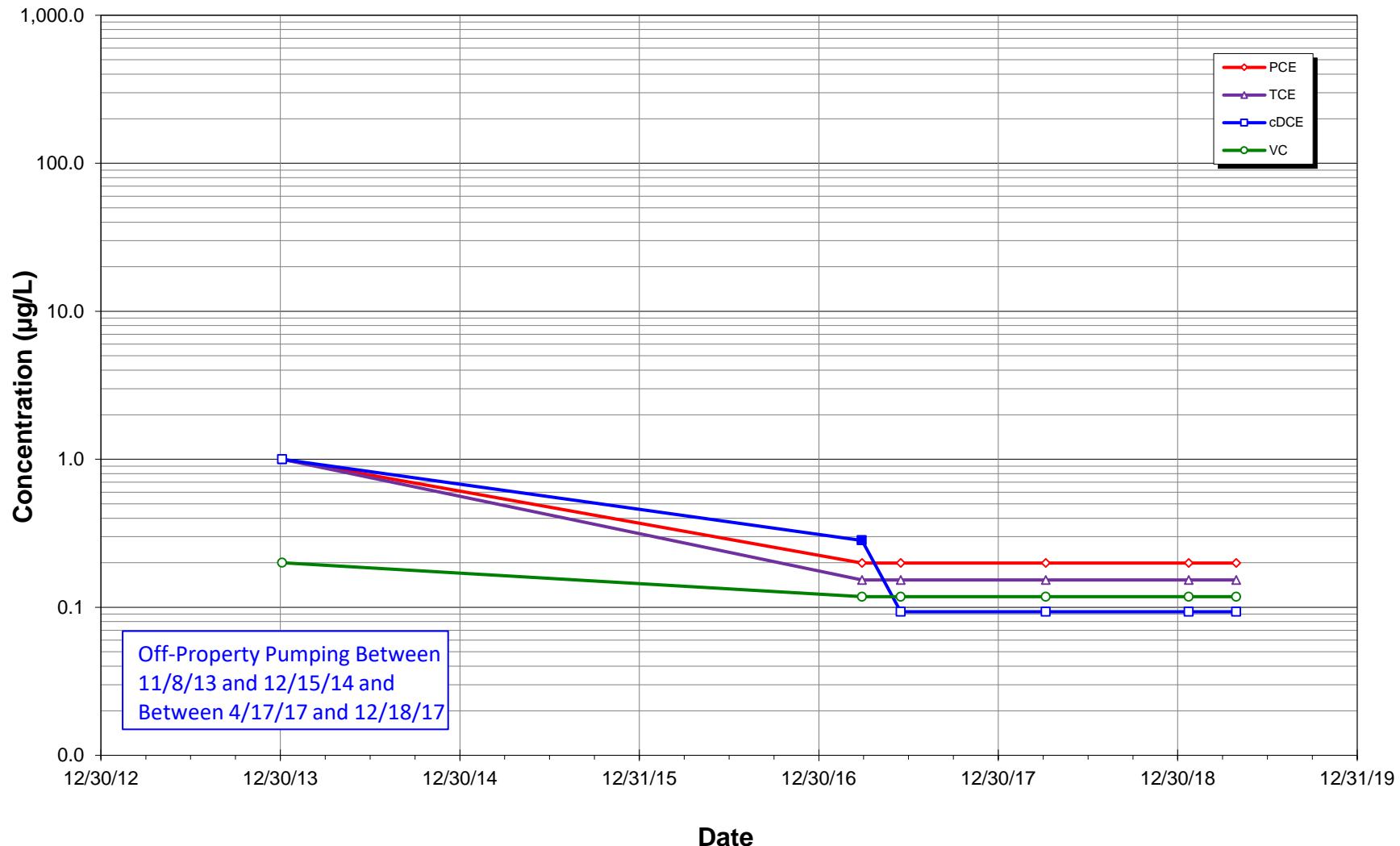
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

Concentration vs Time
MW120
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

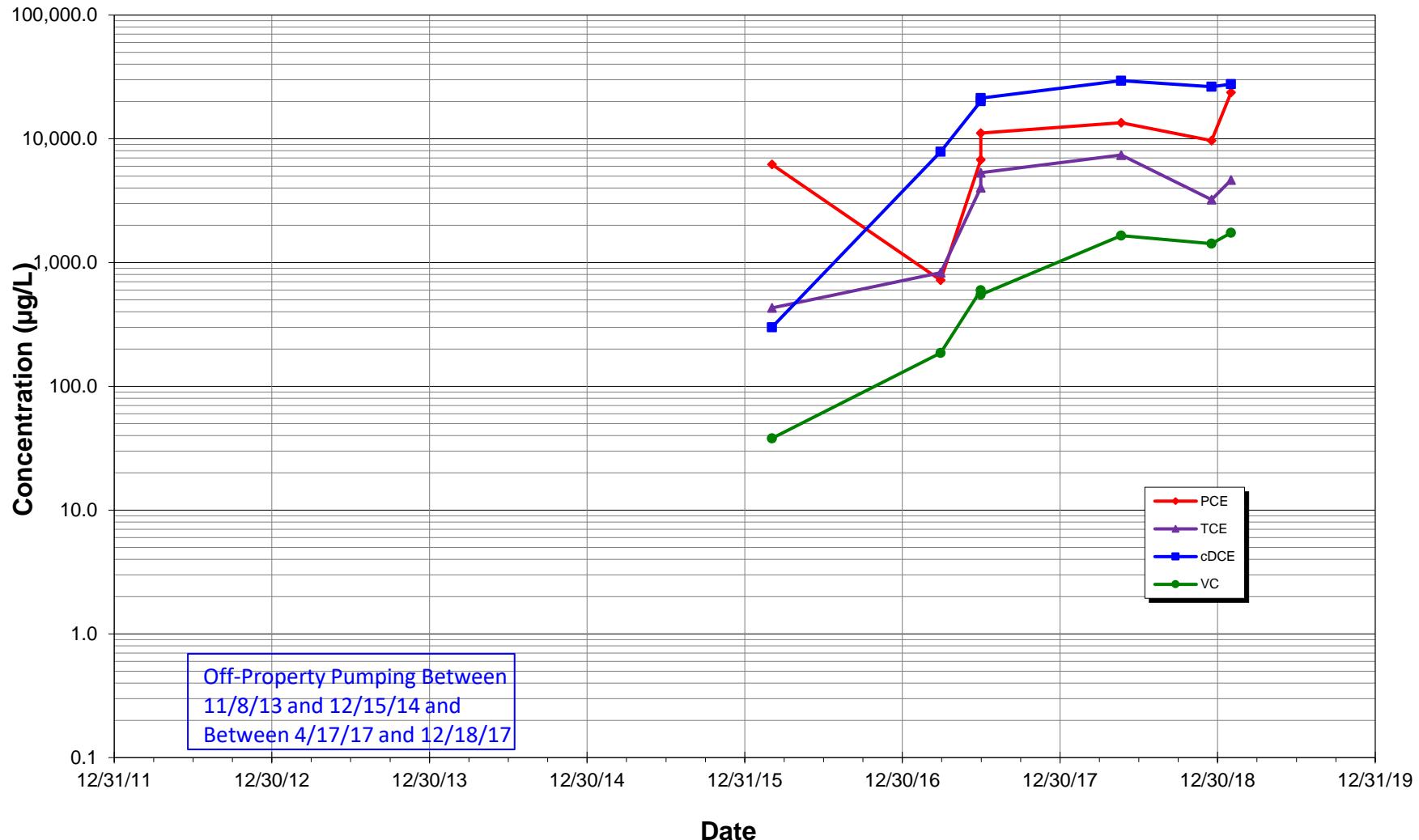
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 µg/L, TCE = 1 µg/L, cDCE = 16 µg/L, and VC = 0.2 µg/L.

Concentration vs Time
MW126
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

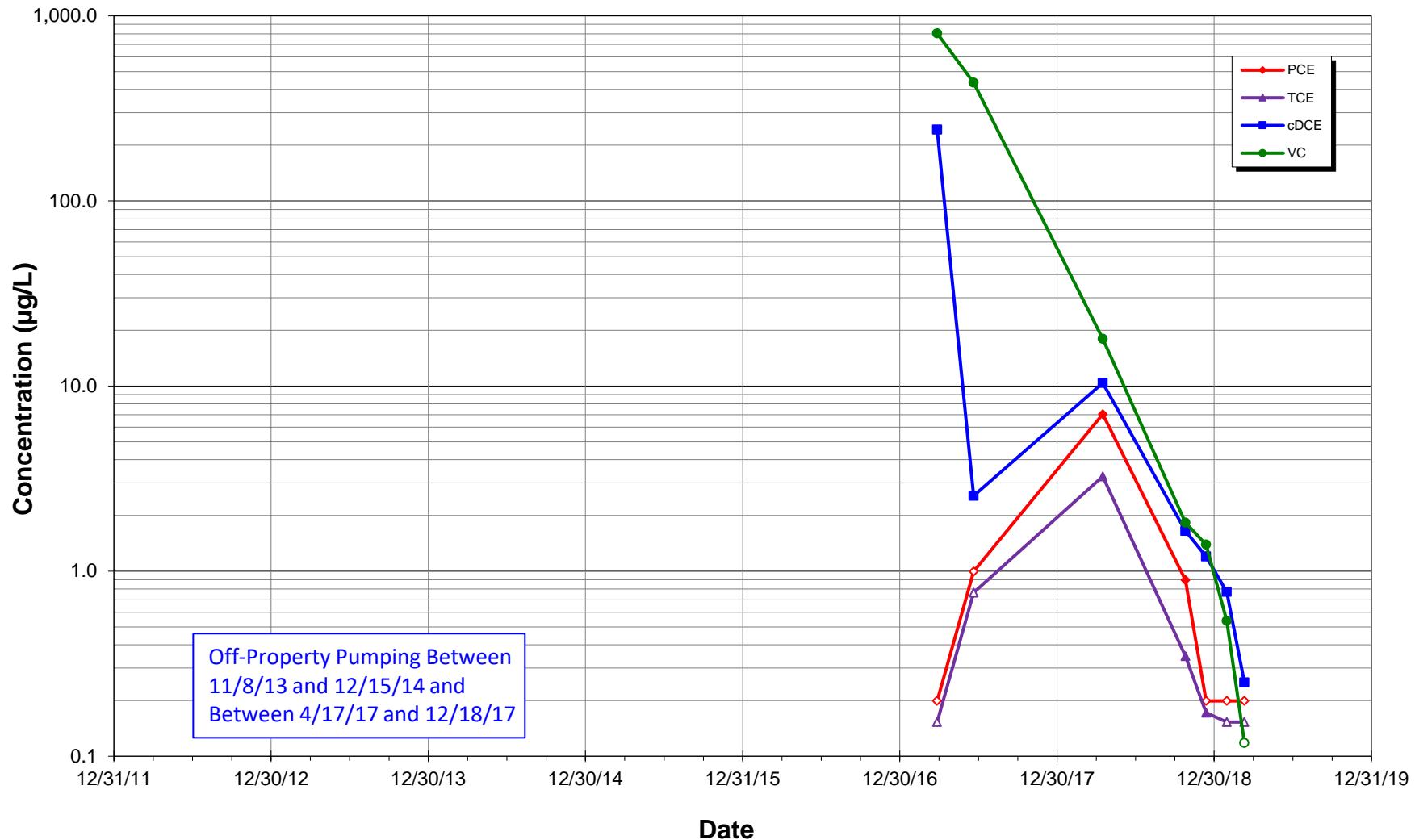
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g}/\text{L}$, TCE = 1 $\mu\text{g}/\text{L}$, cDCE = 16 $\mu\text{g}/\text{L}$, and VC = 0.2 $\mu\text{g}/\text{L}$.

Concentration vs Time
MW130
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

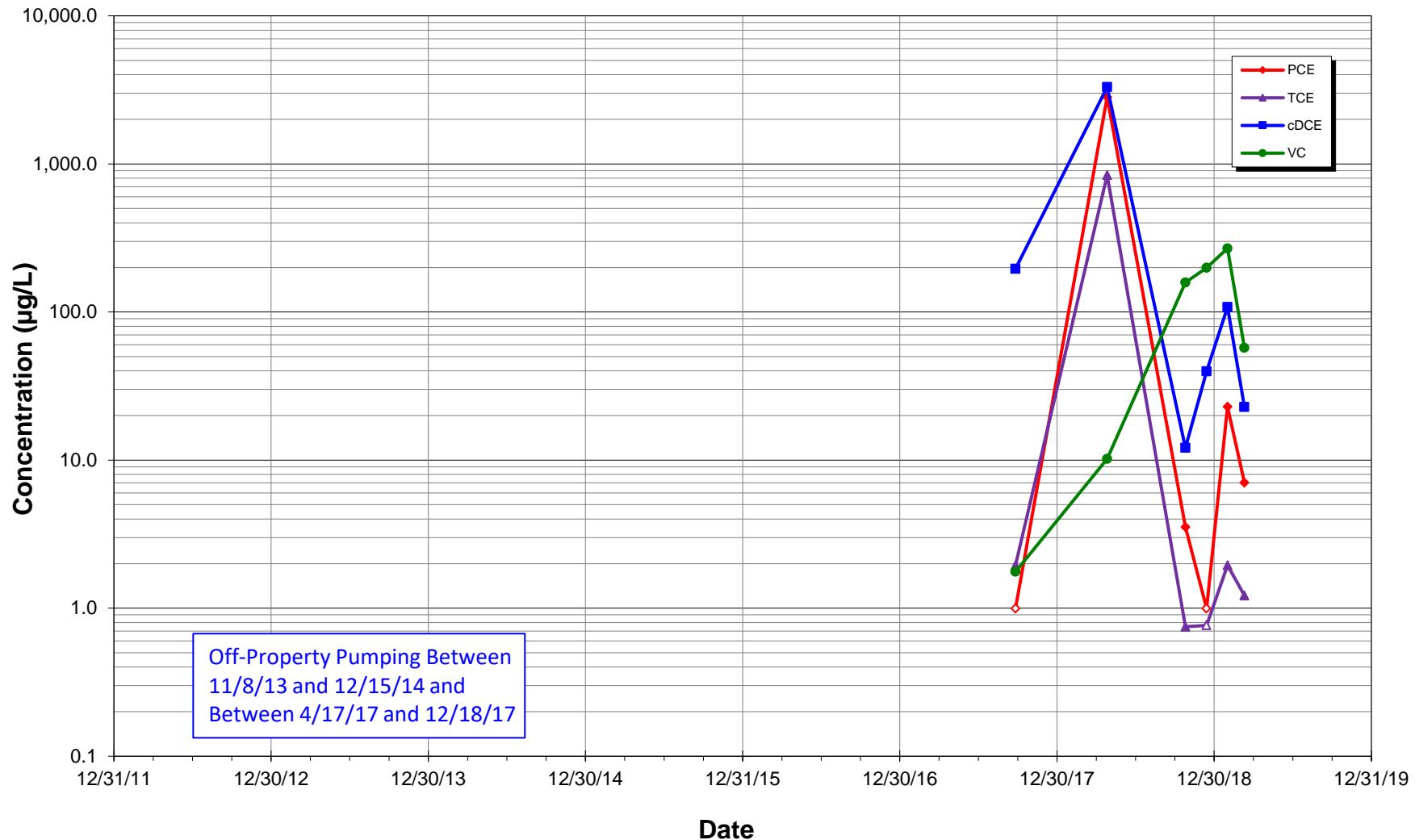
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

Concentration vs Time
MW131
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

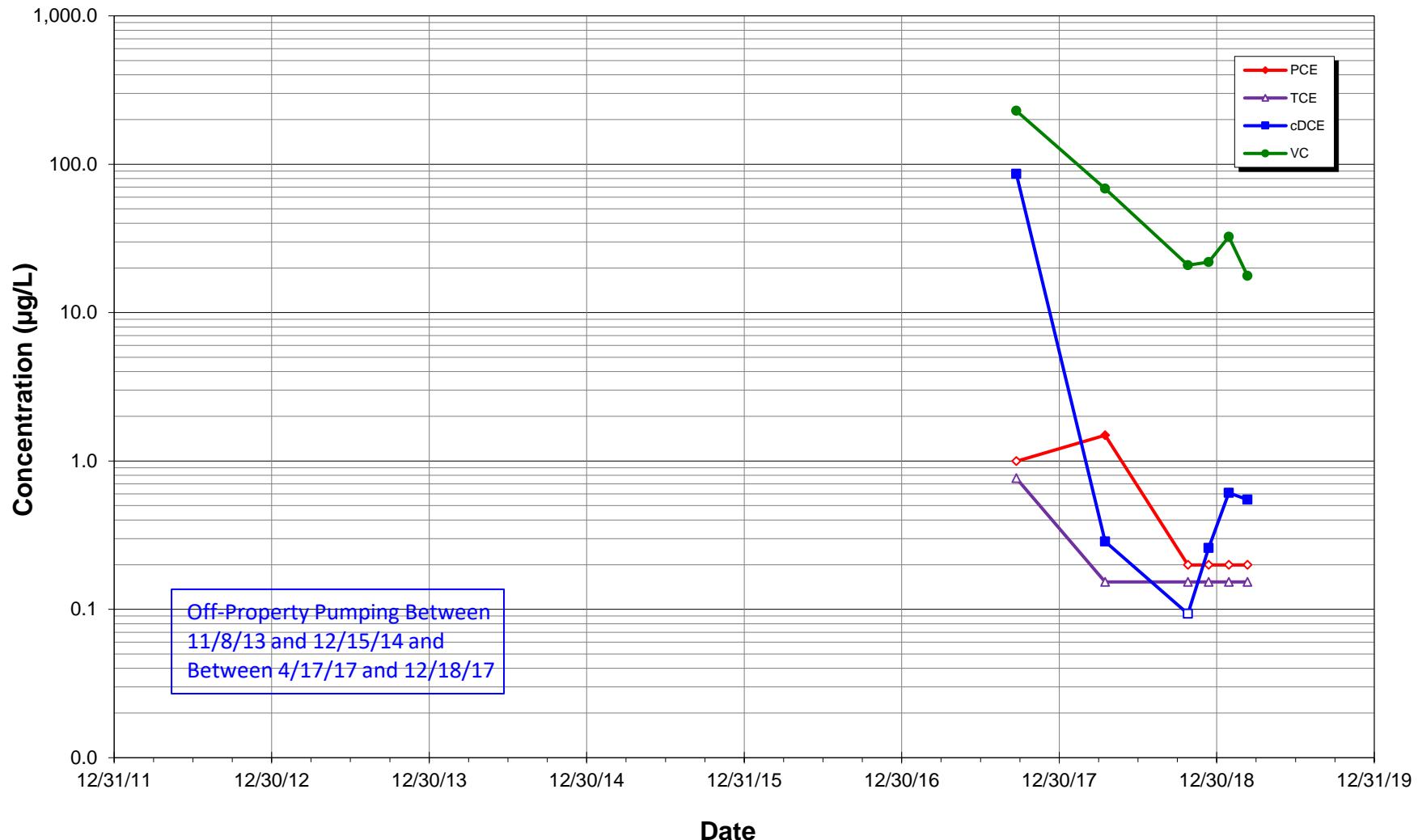
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g}/\text{L}$, TCE = 1 $\mu\text{g}/\text{L}$, cDCE = 16 $\mu\text{g}/\text{L}$, and VC = 0.2 $\mu\text{g}/\text{L}$.

Concentration vs Time
MW-132
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

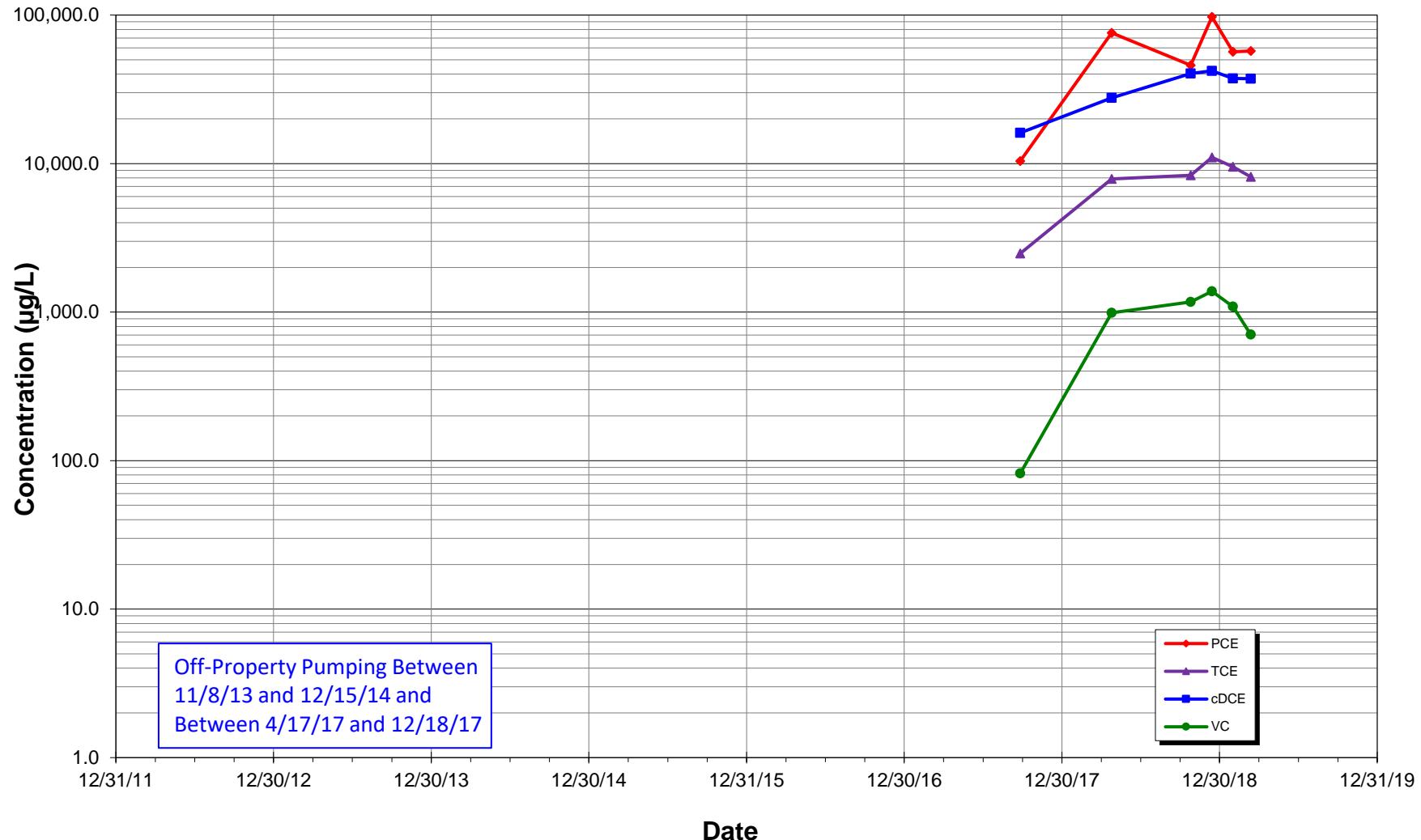
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

Concentration vs Time
MW-134
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

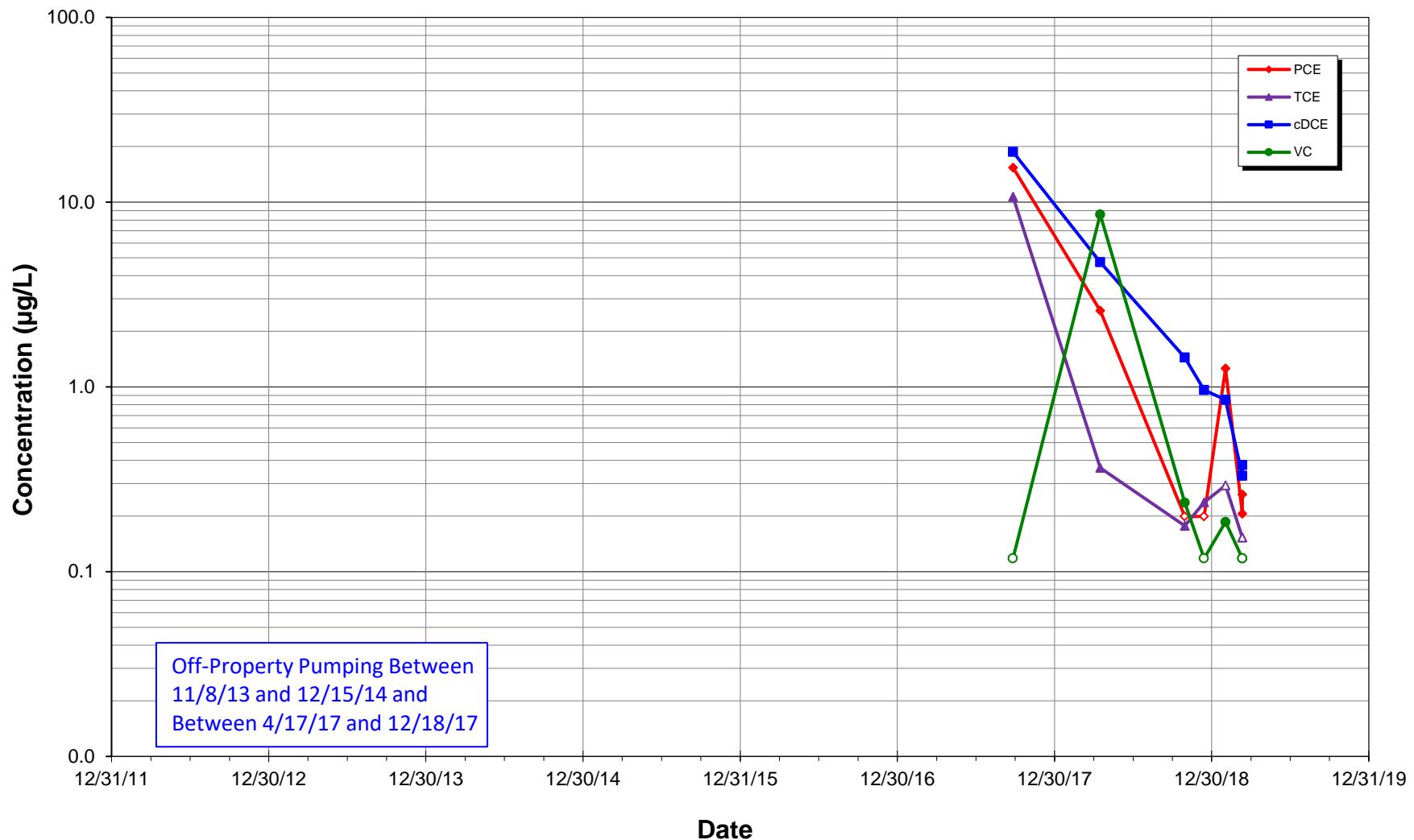
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

Concentration vs Time
MW-135
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

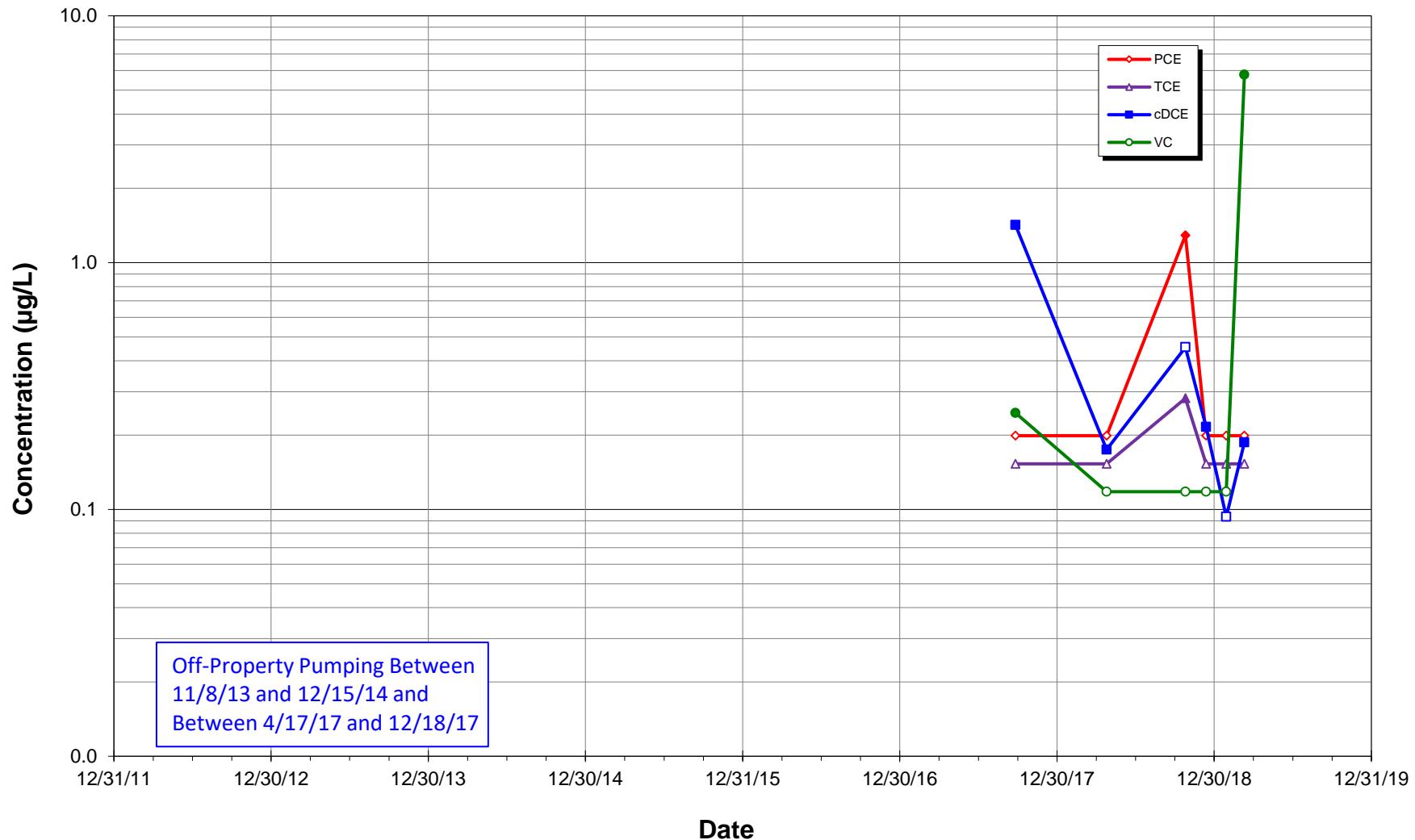
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

Concentration vs Time
MW-136
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

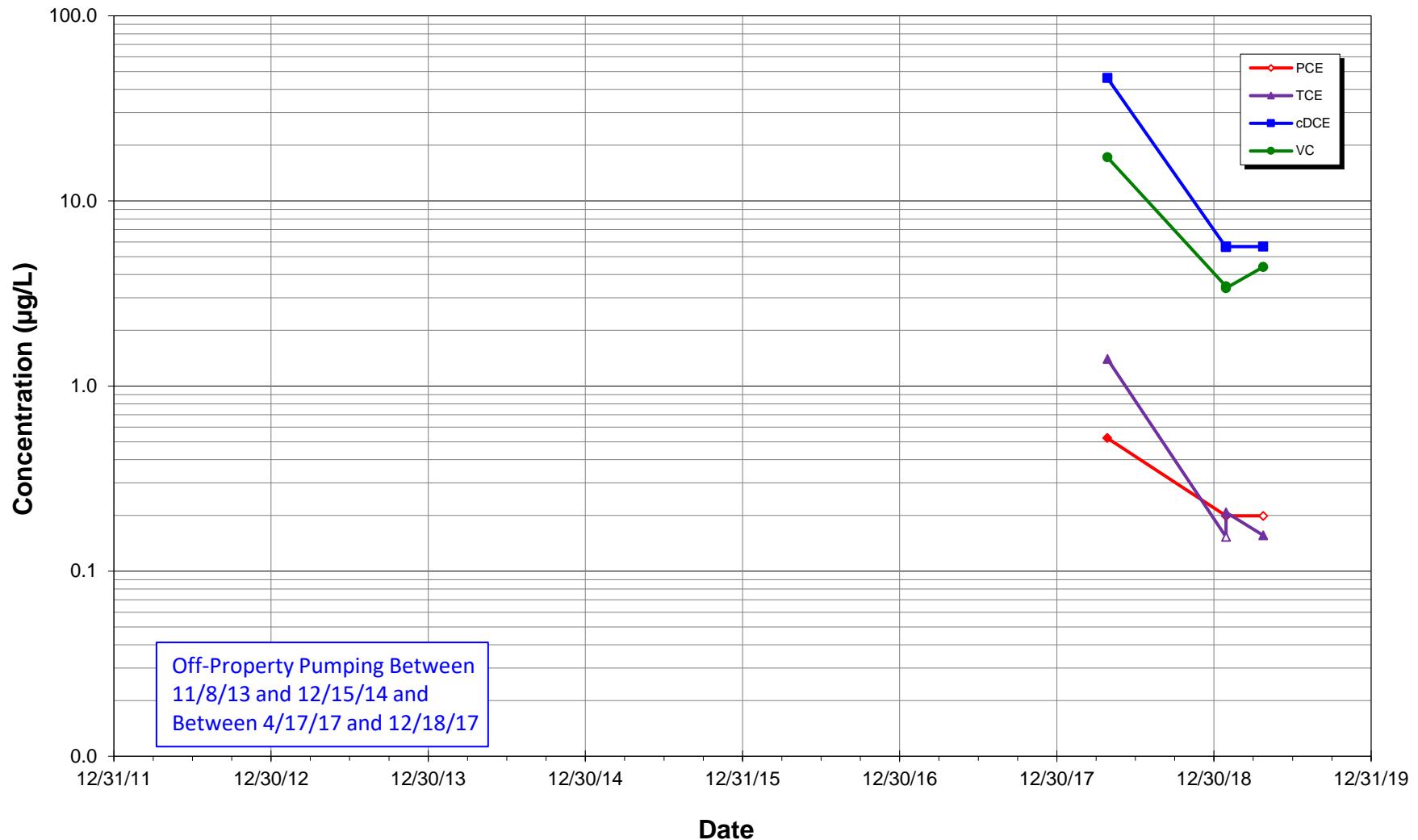
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

Concentration vs Time
MW-139
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

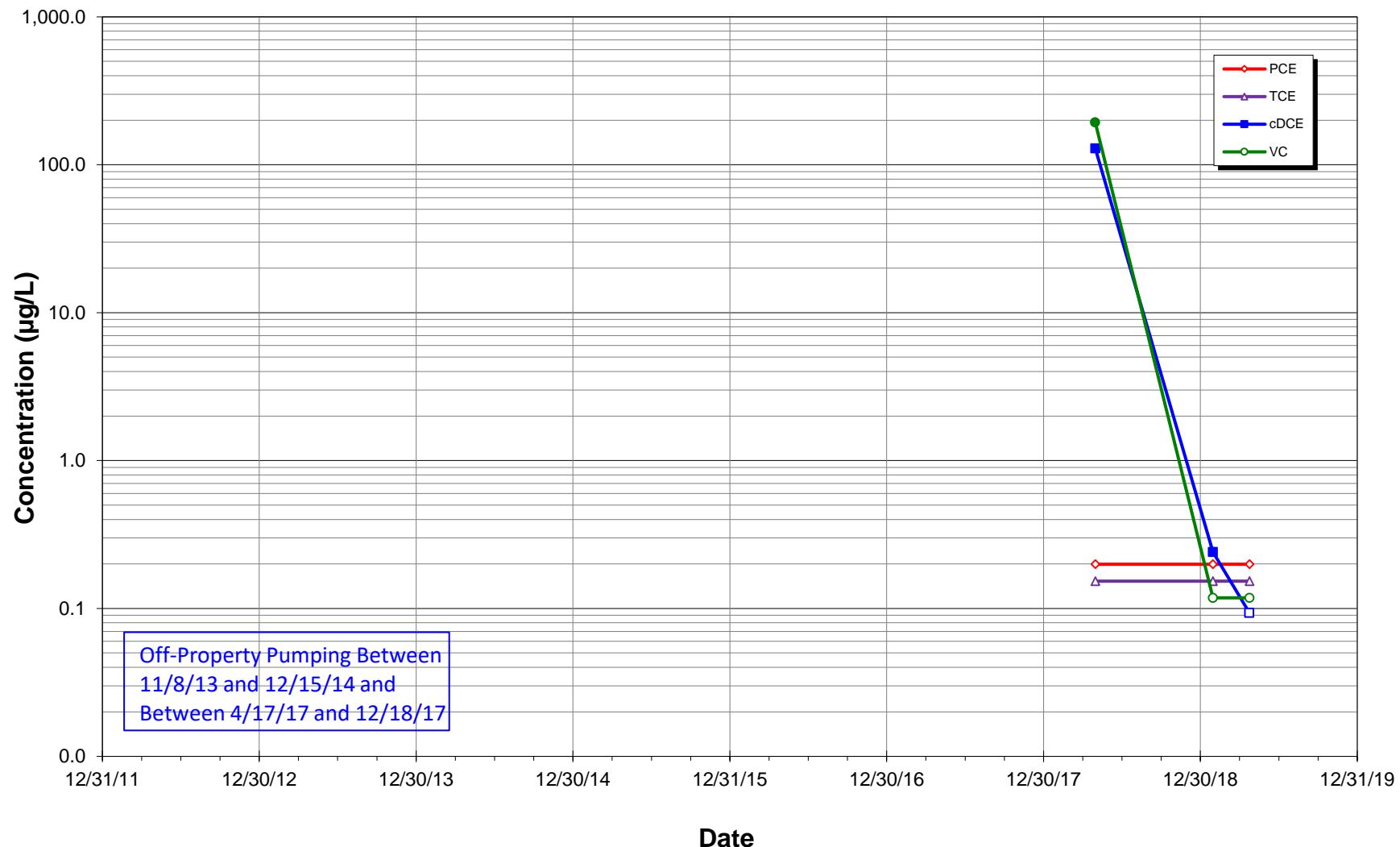
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

Concentration vs Time
MW-142
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

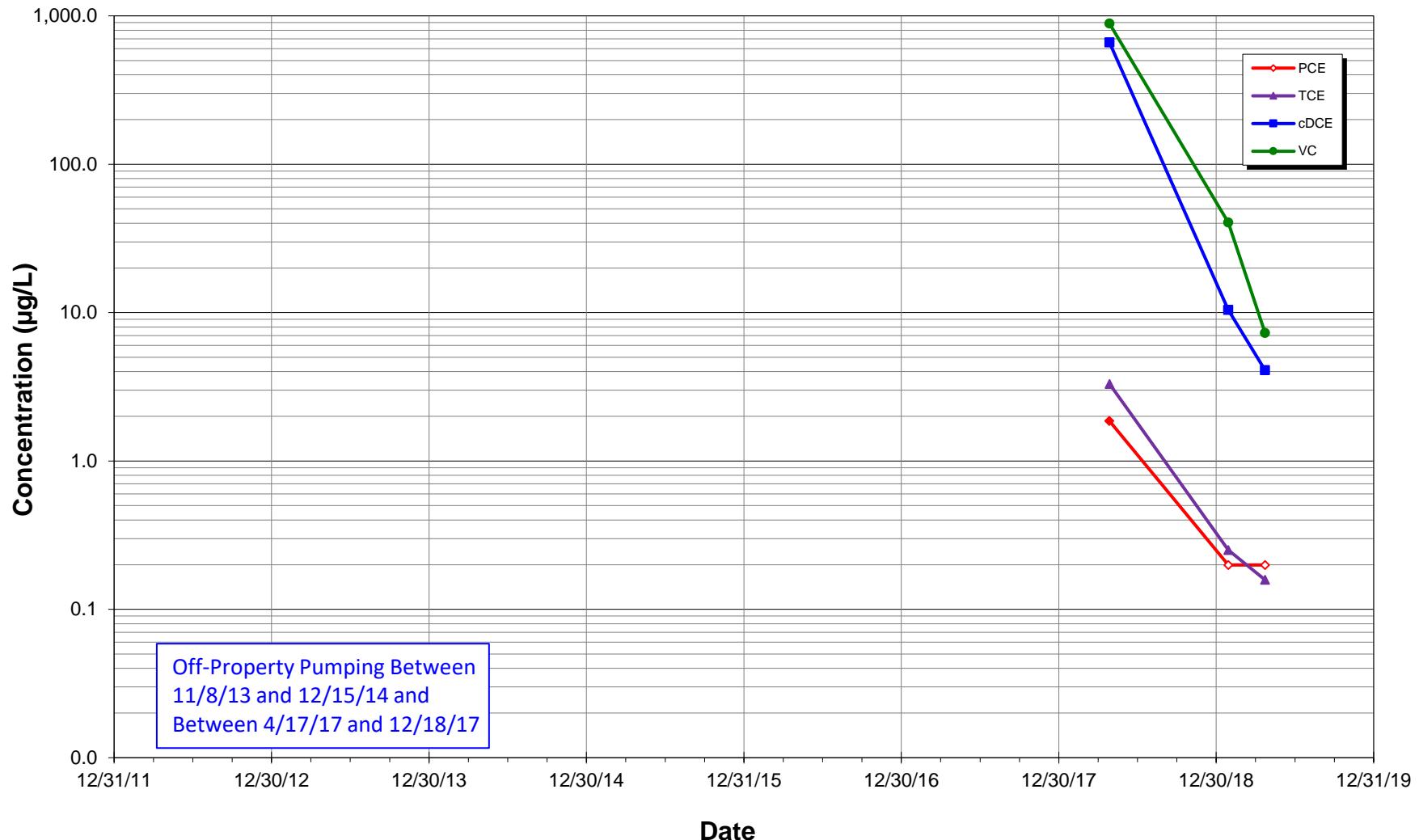
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g}/\text{L}$, TCE = 1 $\mu\text{g}/\text{L}$, cDCE = 16 $\mu\text{g}/\text{L}$, and VC = 0.2 $\mu\text{g}/\text{L}$.

Concentration vs Time
MW-143
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

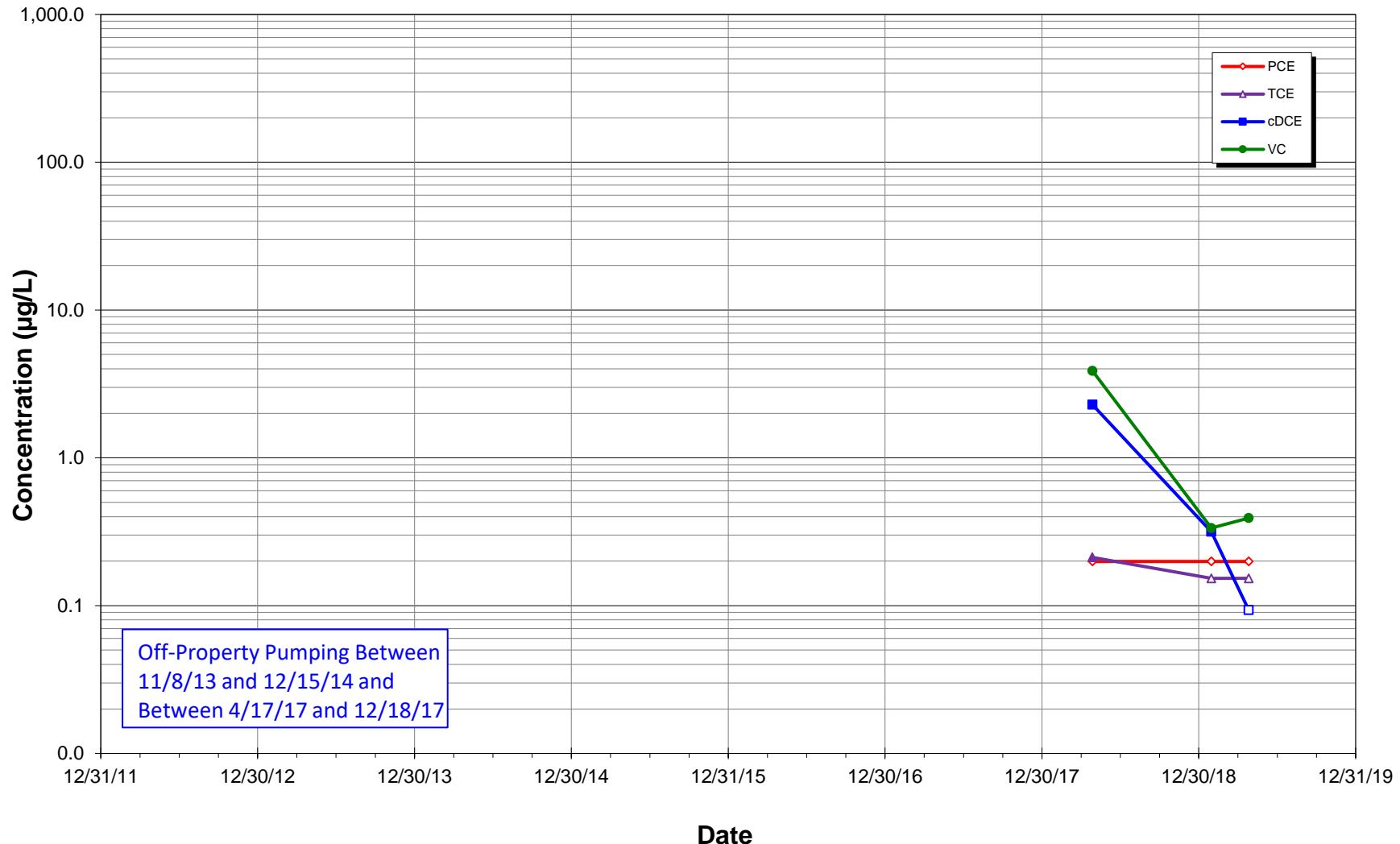
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

Concentration vs Time
MW-144
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

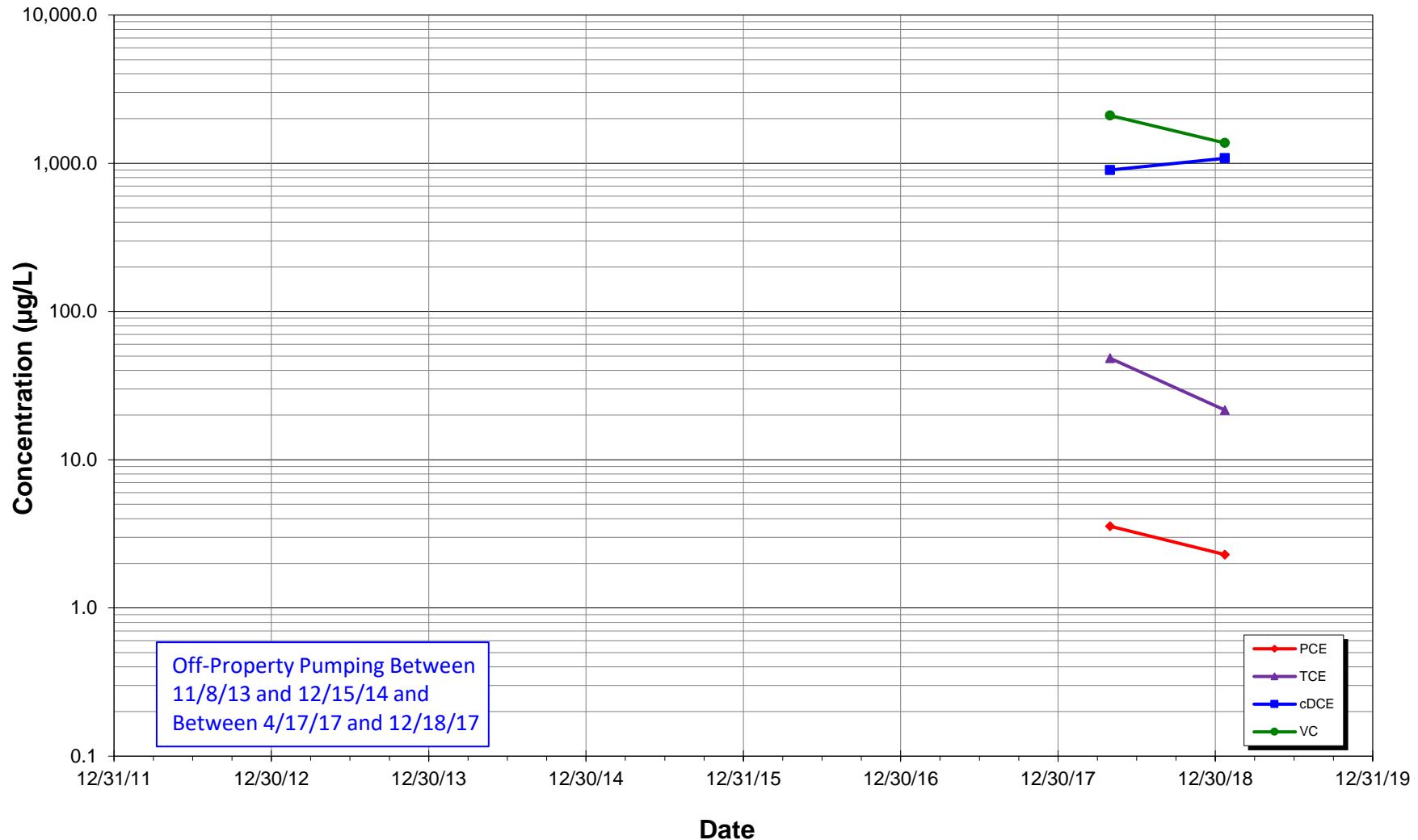
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g}/\text{L}$, TCE = 1 $\mu\text{g}/\text{L}$, cDCE = 16 $\mu\text{g}/\text{L}$, and VC = 0.2 $\mu\text{g}/\text{L}$.

Concentration vs Time
MW-145
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

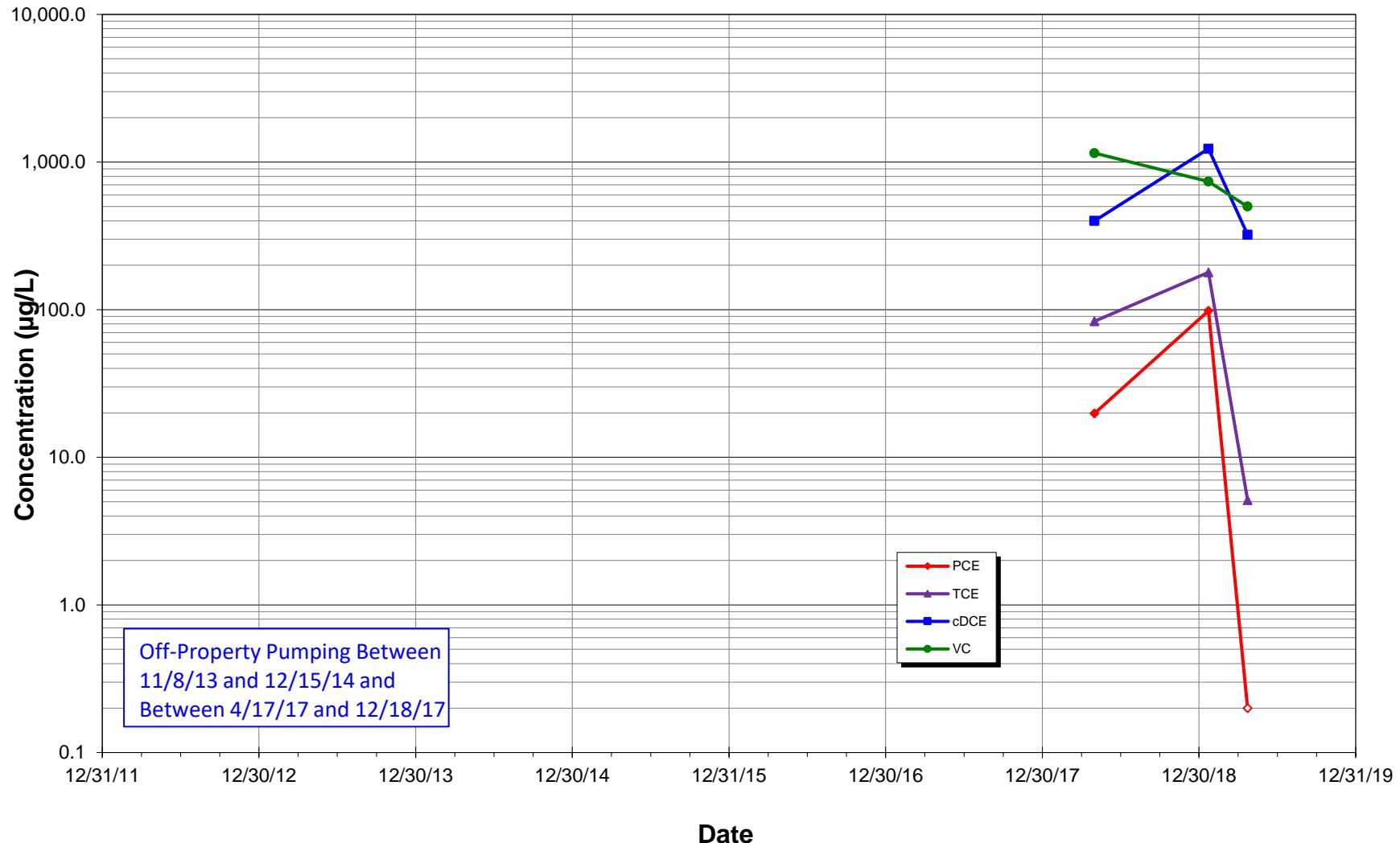
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

Concentration vs Time
MW-146
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

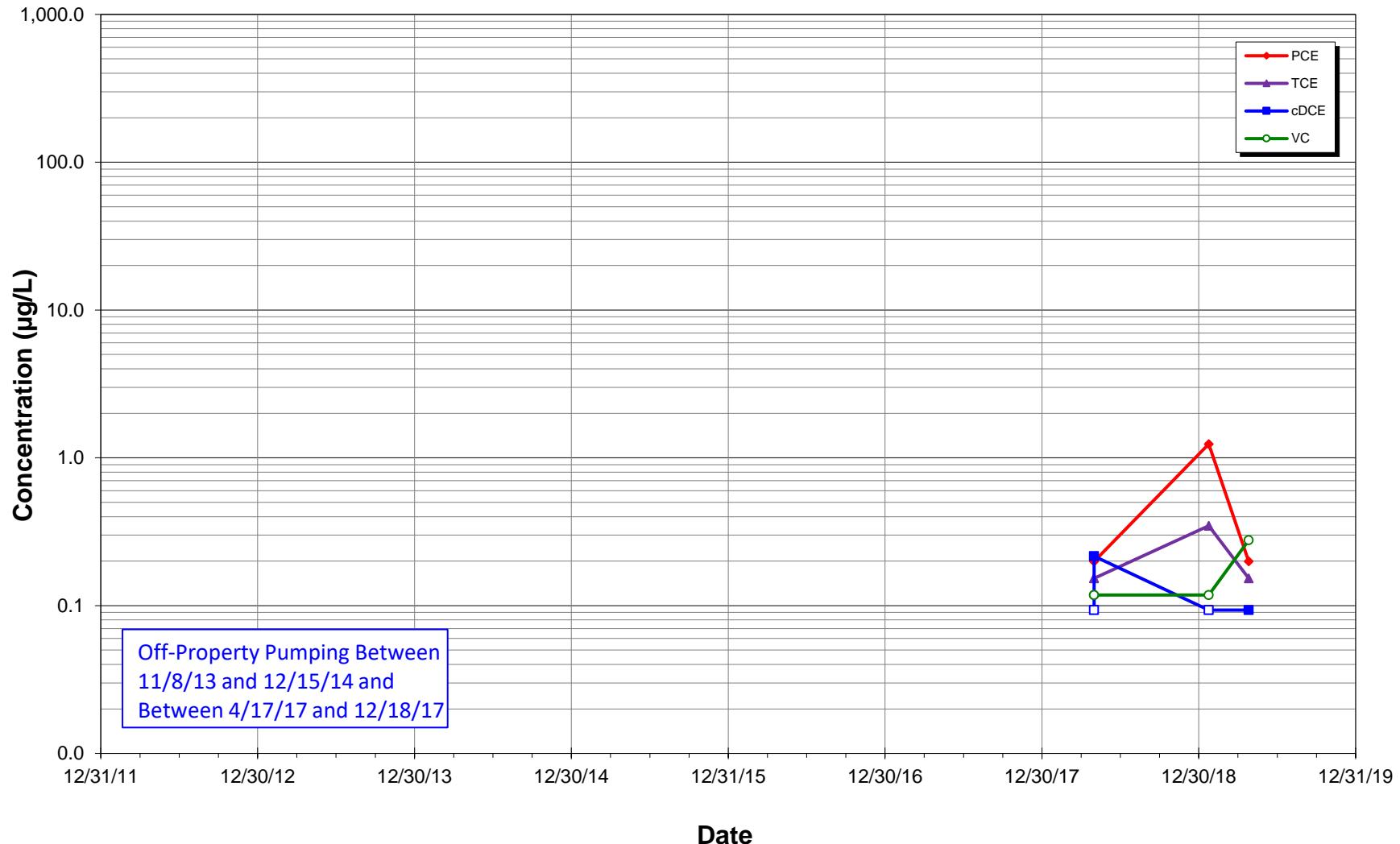
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g}/\text{L}$, TCE = 1 $\mu\text{g}/\text{L}$, cDCE = 16 $\mu\text{g}/\text{L}$, and VC = 0.2 $\mu\text{g}/\text{L}$.

Concentration vs Time
MW-147
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

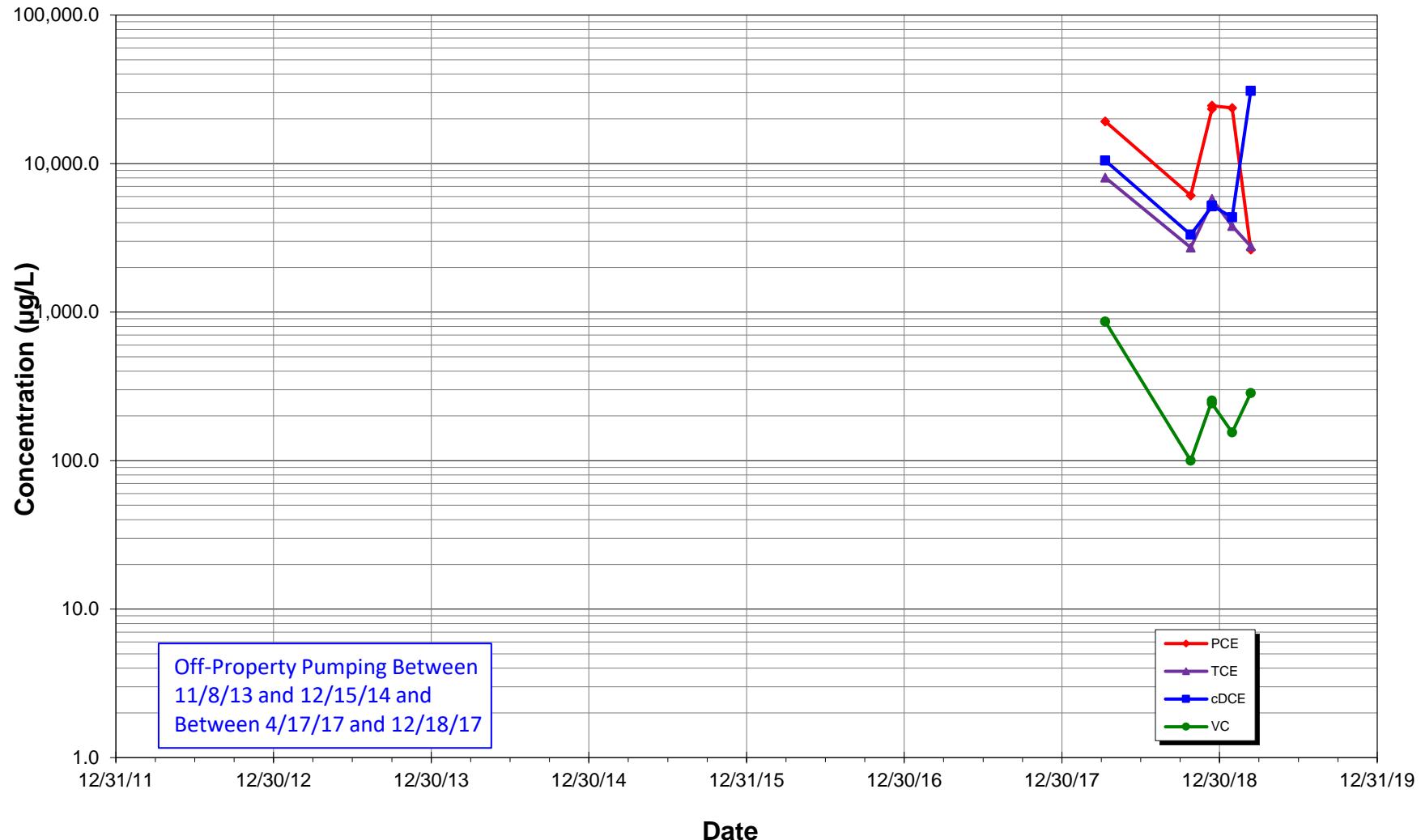
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g}/\text{L}$, TCE = 1 $\mu\text{g}/\text{L}$, cDCE = 16 $\mu\text{g}/\text{L}$, and VC = 0.2 $\mu\text{g}/\text{L}$.

Concentration vs Time
MW-148
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

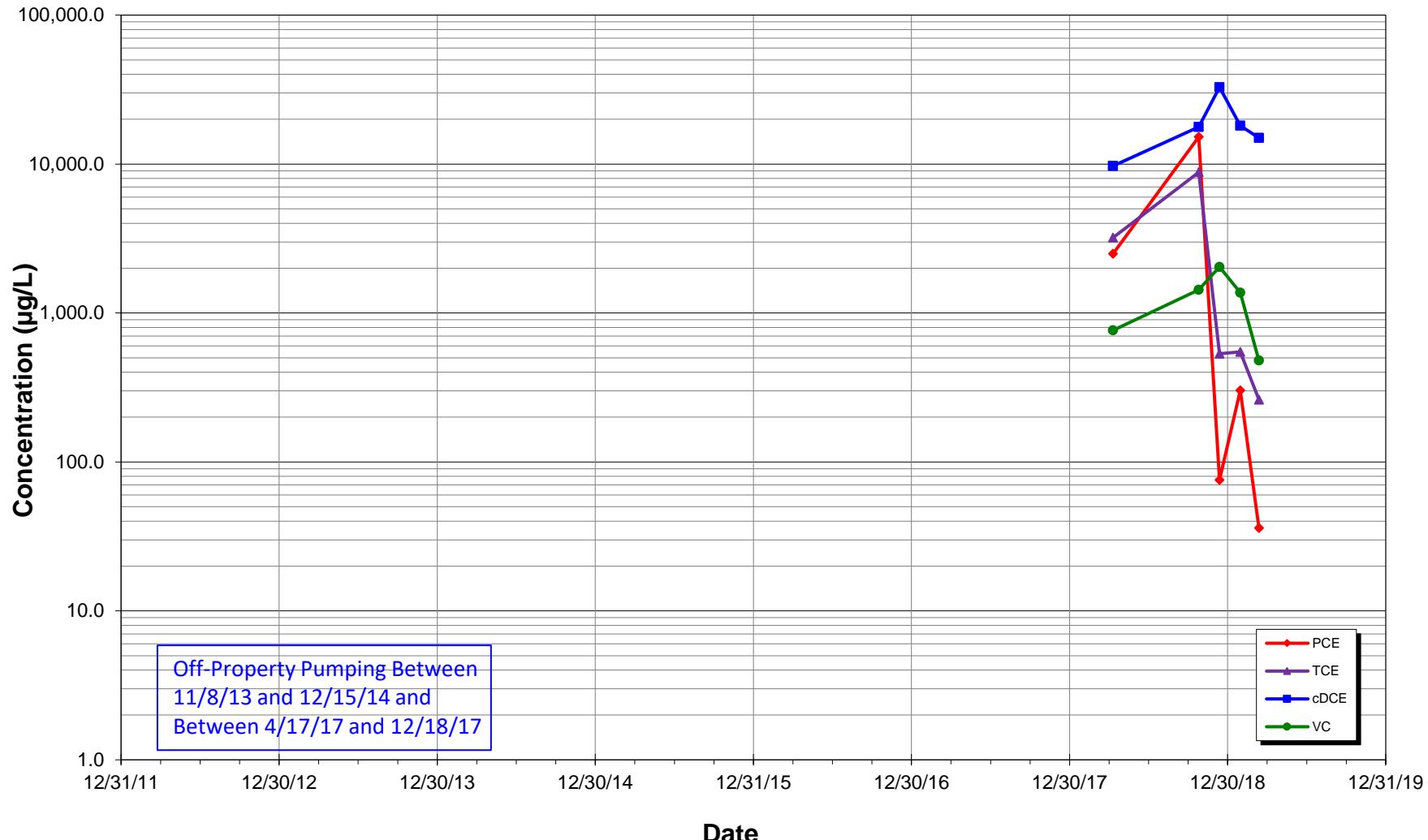
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

Concentration vs Time
MW-149
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

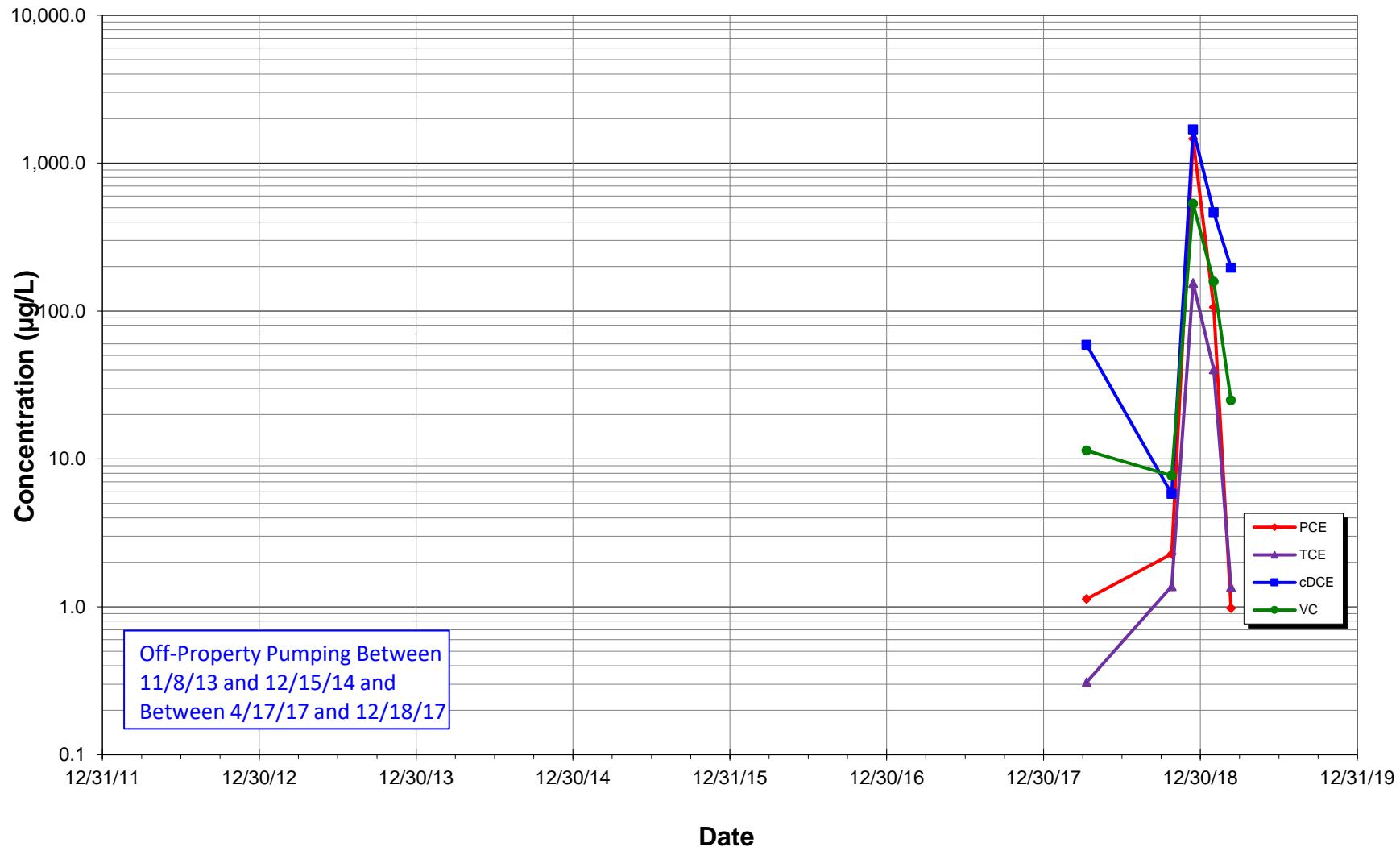
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g}/\text{L}$, TCE = 1 $\mu\text{g}/\text{L}$, cDCE = 16 $\mu\text{g}/\text{L}$, and VC = 0.2 $\mu\text{g}/\text{L}$.

Concentration vs Time
MW-150
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

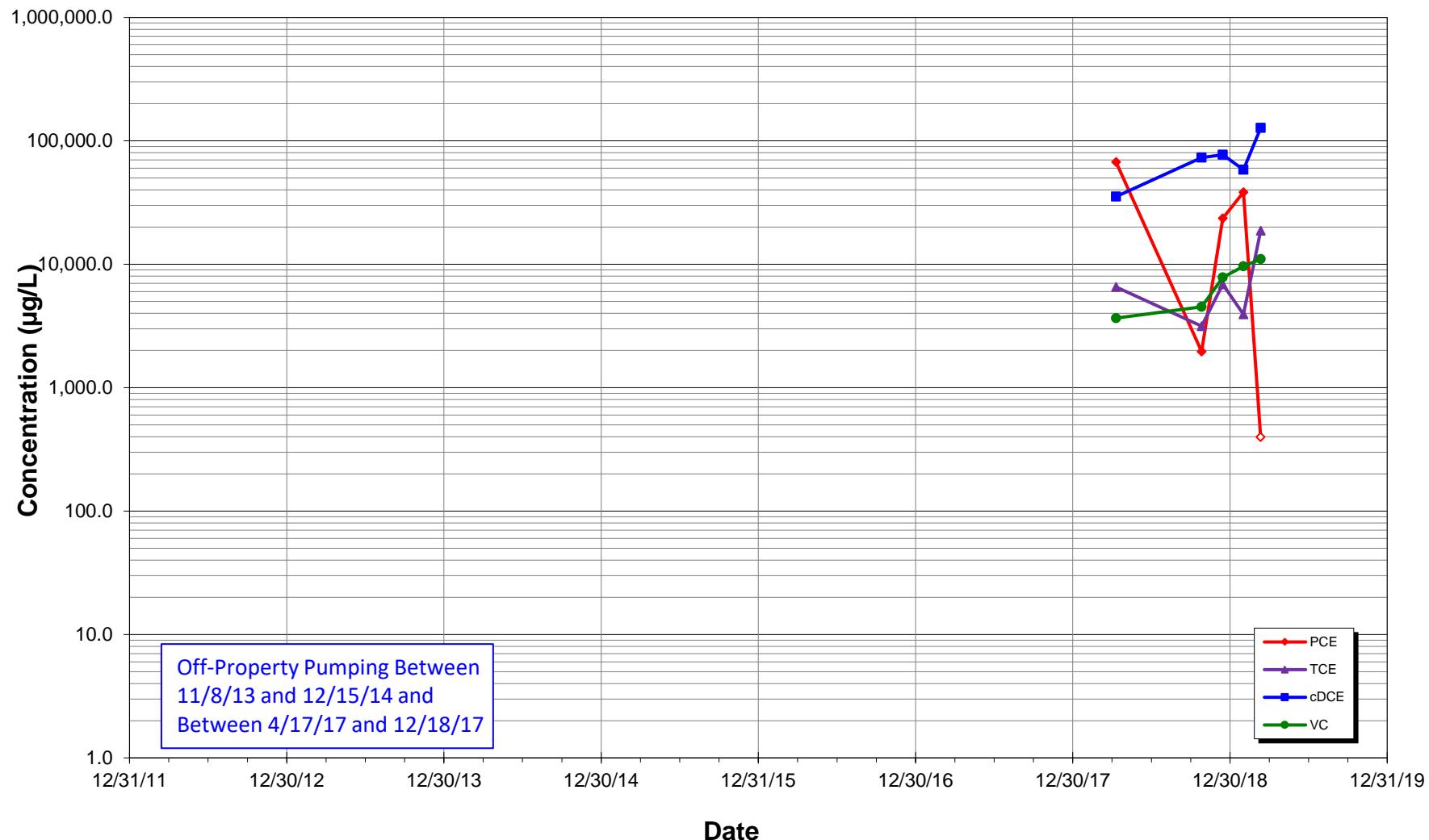
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

Concentration vs Time
MW-151
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

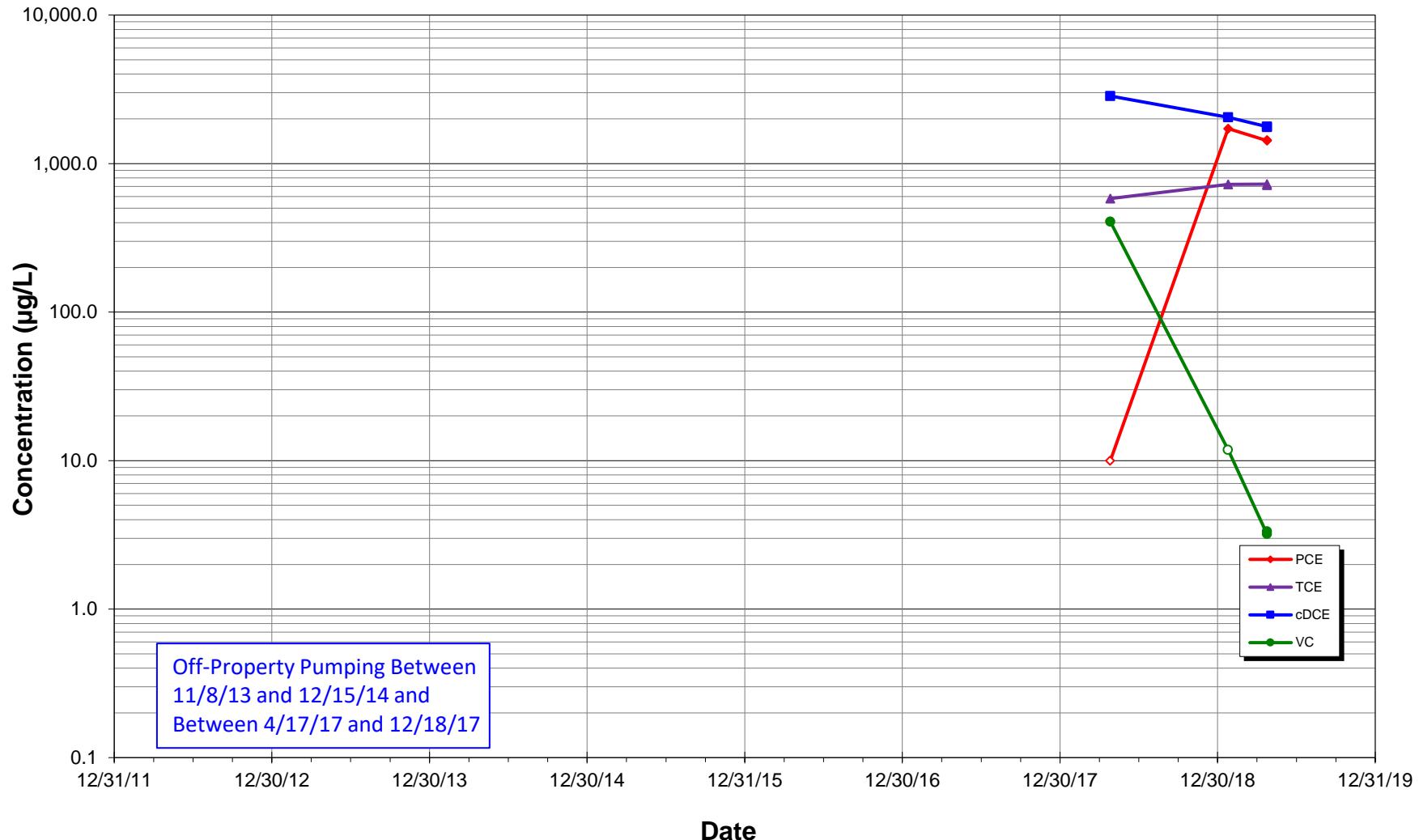
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

Concentration vs Time
MW-152
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

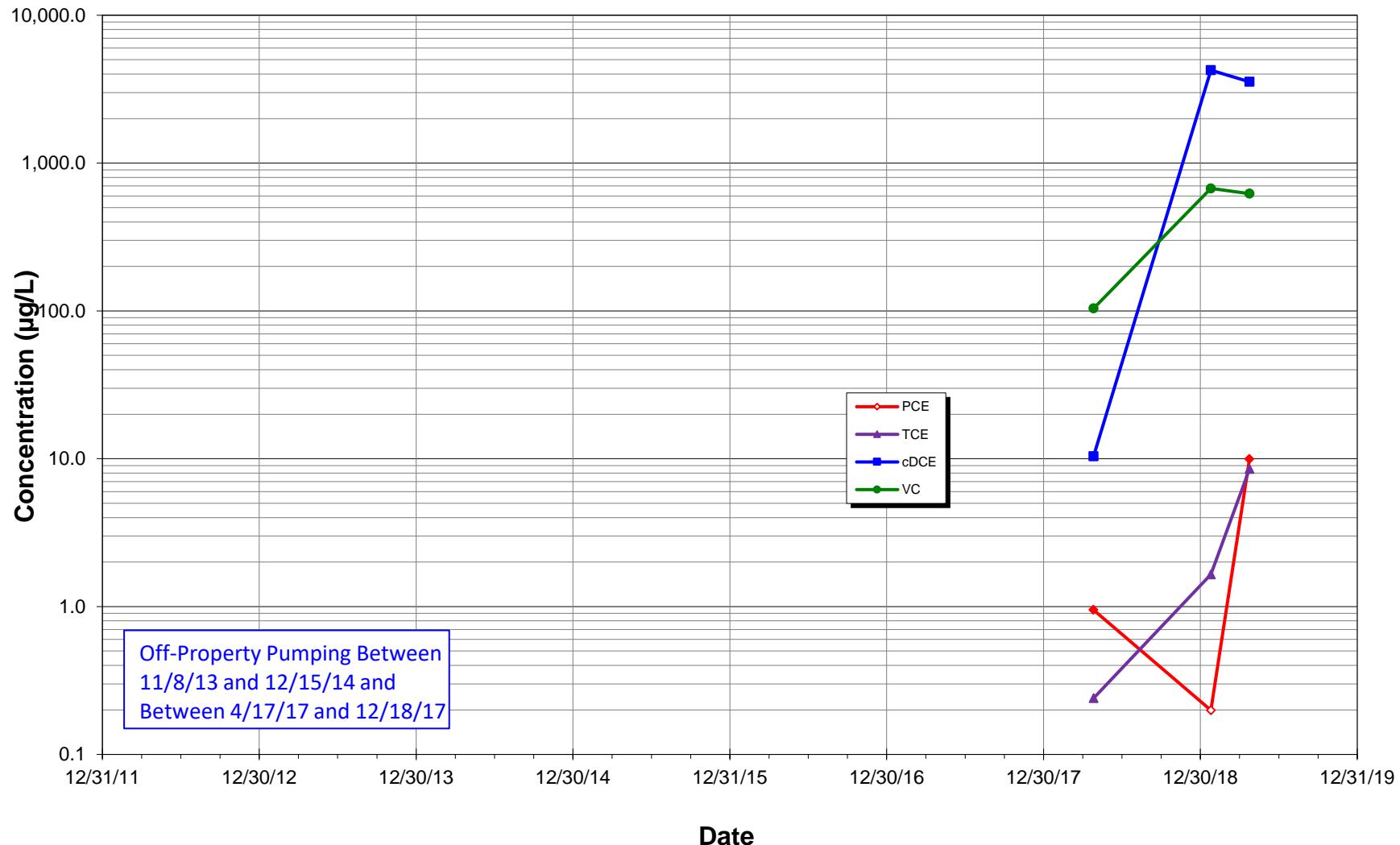
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g}/\text{L}$, TCE = 1 $\mu\text{g}/\text{L}$, cDCE = 16 $\mu\text{g}/\text{L}$, and VC = 0.2 $\mu\text{g}/\text{L}$.

Concentration vs Time
MW-156
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

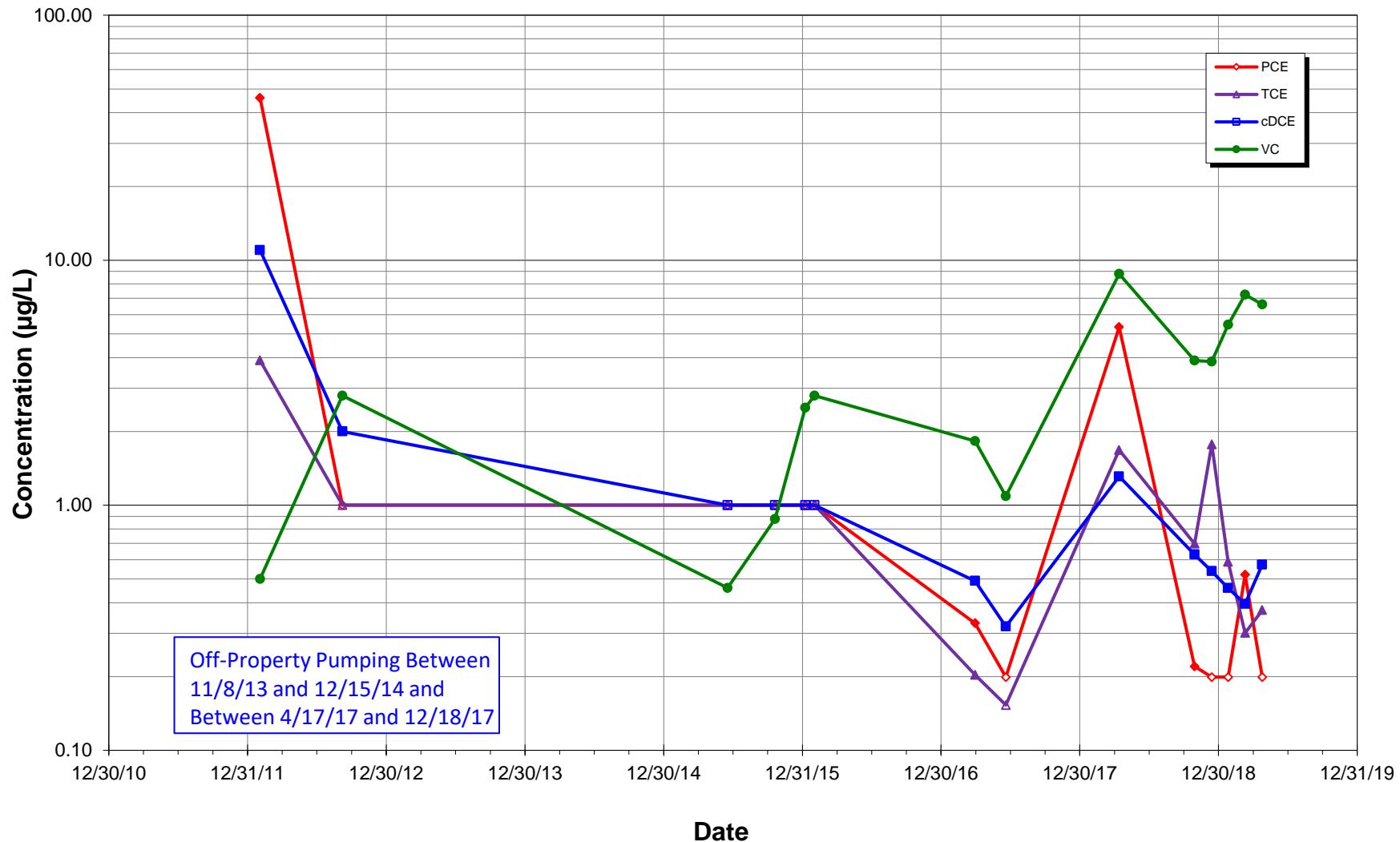
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

Concentration vs Time
MW157
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

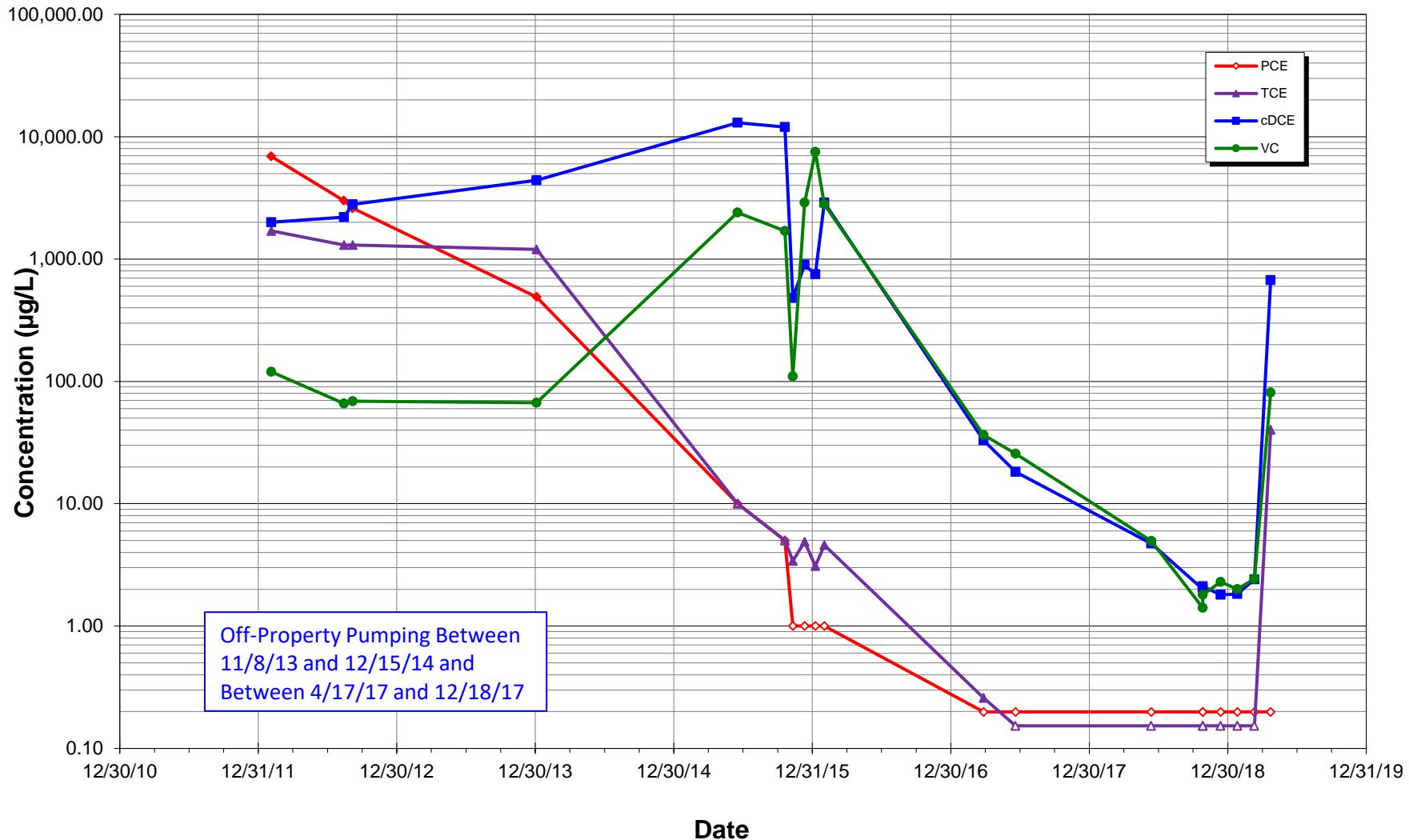
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

Concentration vs Time
W-MW-01
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

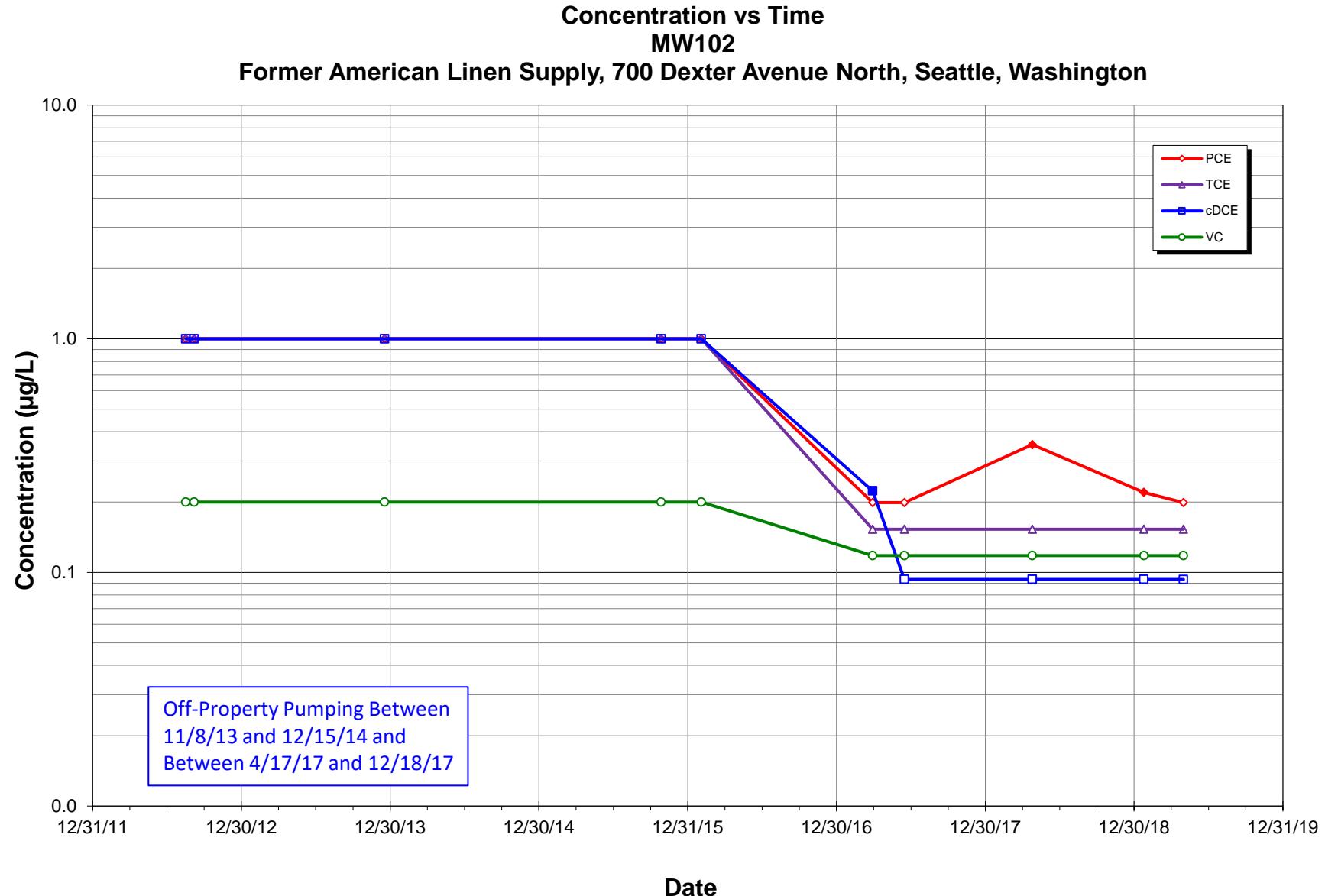
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 µg/L, TCE = 1 µg/L, cDCE = 16 µg/L, and VC = 0.2 µg/L.

Concentration vs Time
W-MW-02
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

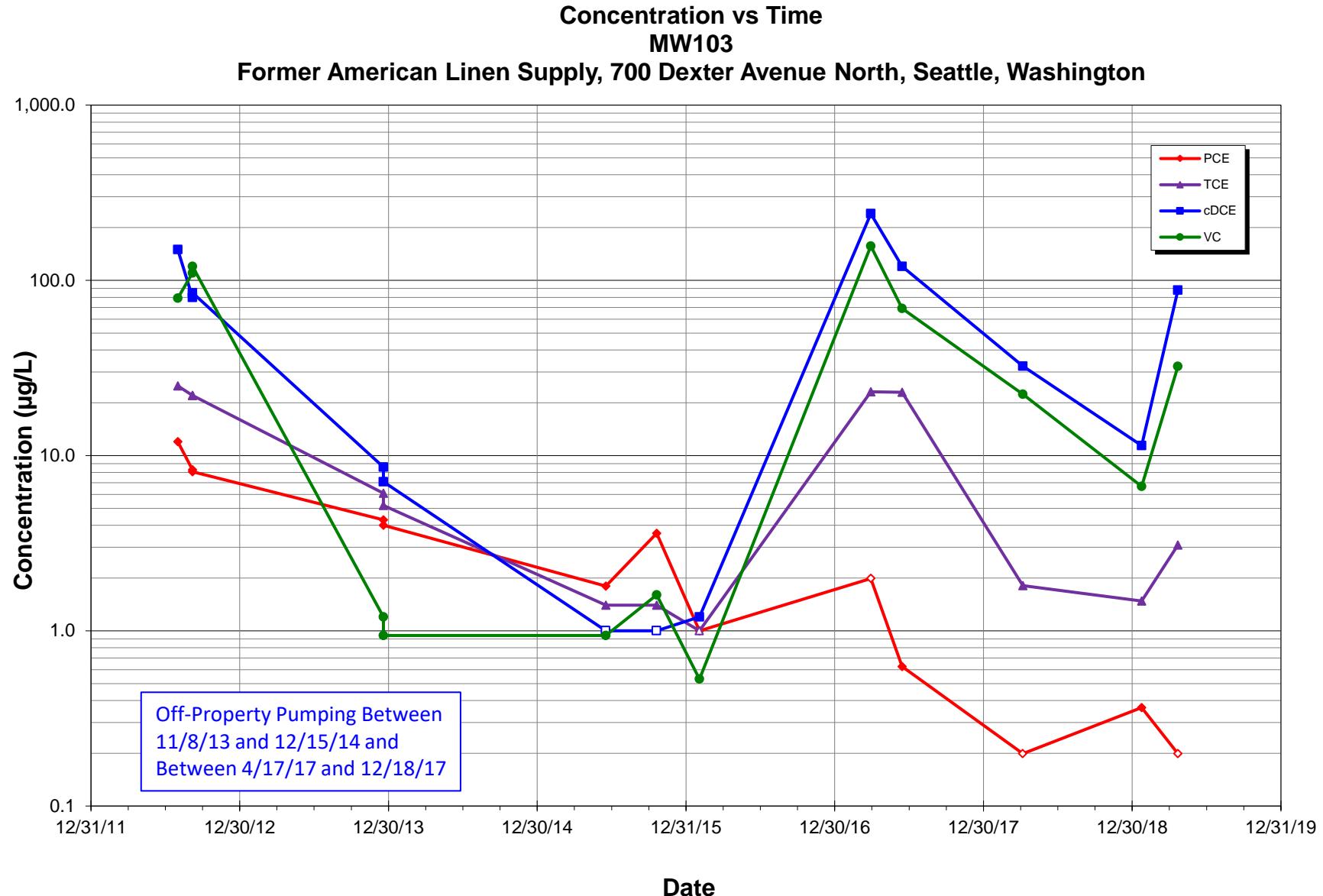
**Notes:**

- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

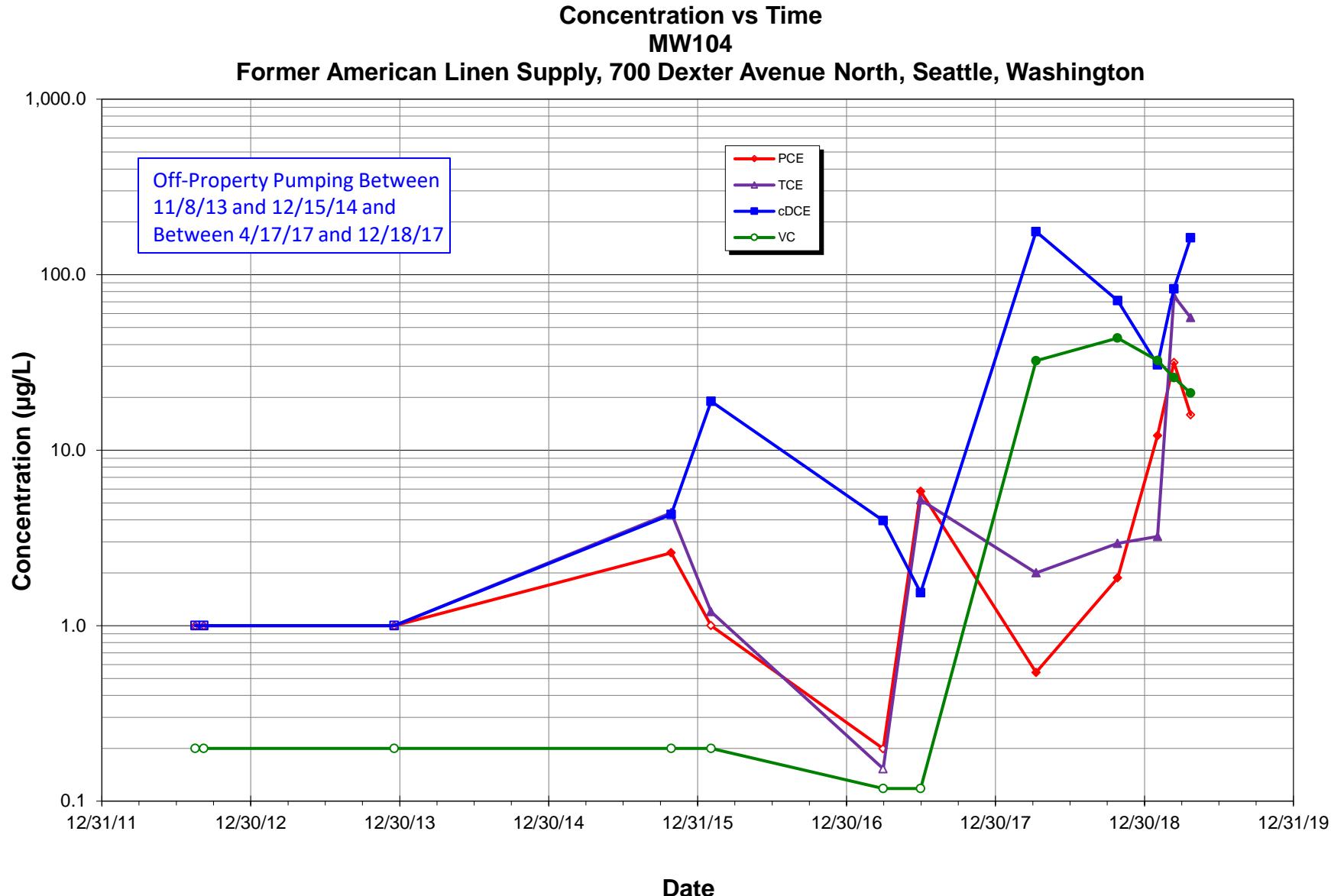
Attachment A
Deep Well Time-Trend Plots

**Notes:**

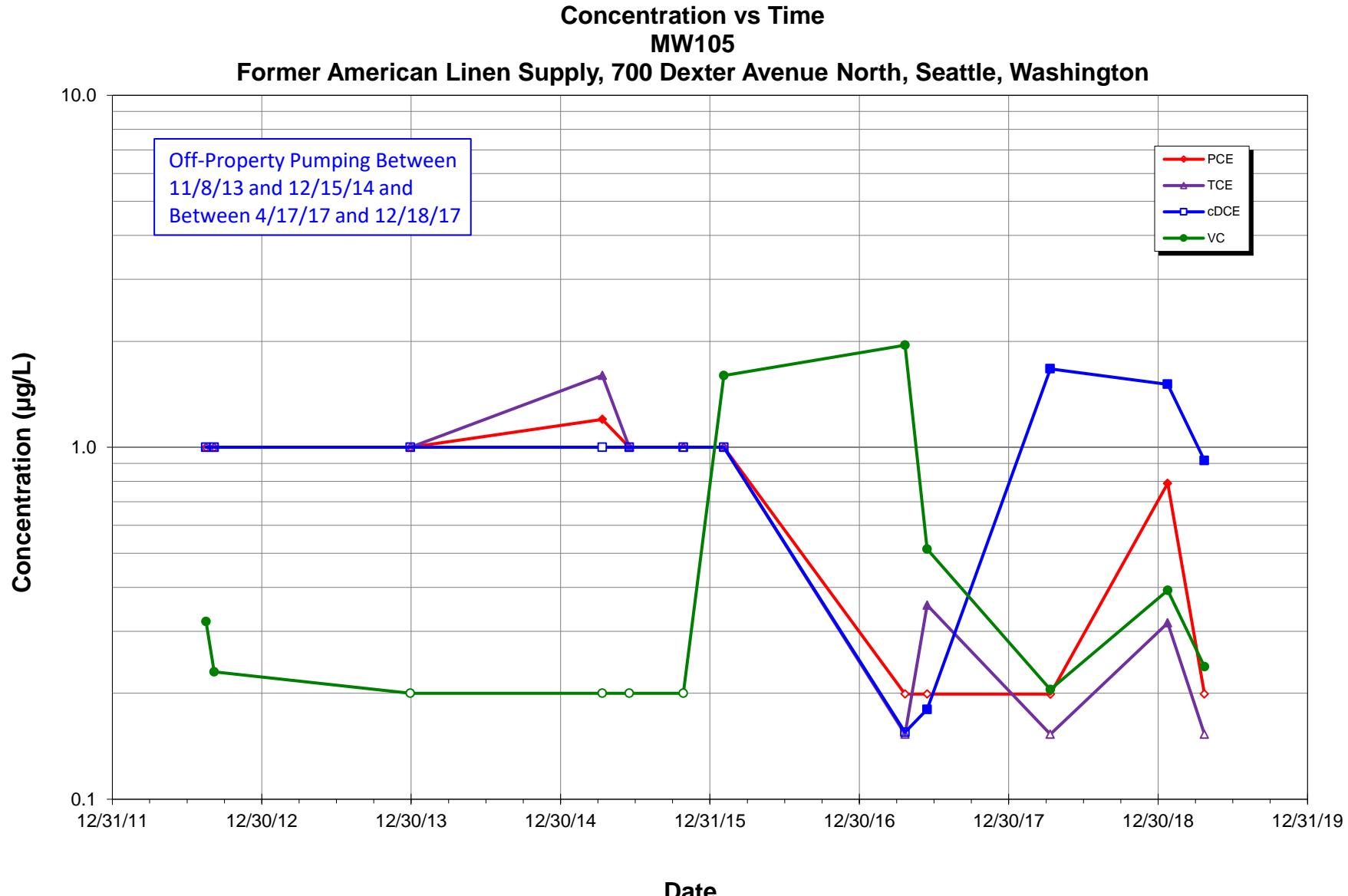
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

**Notes:**

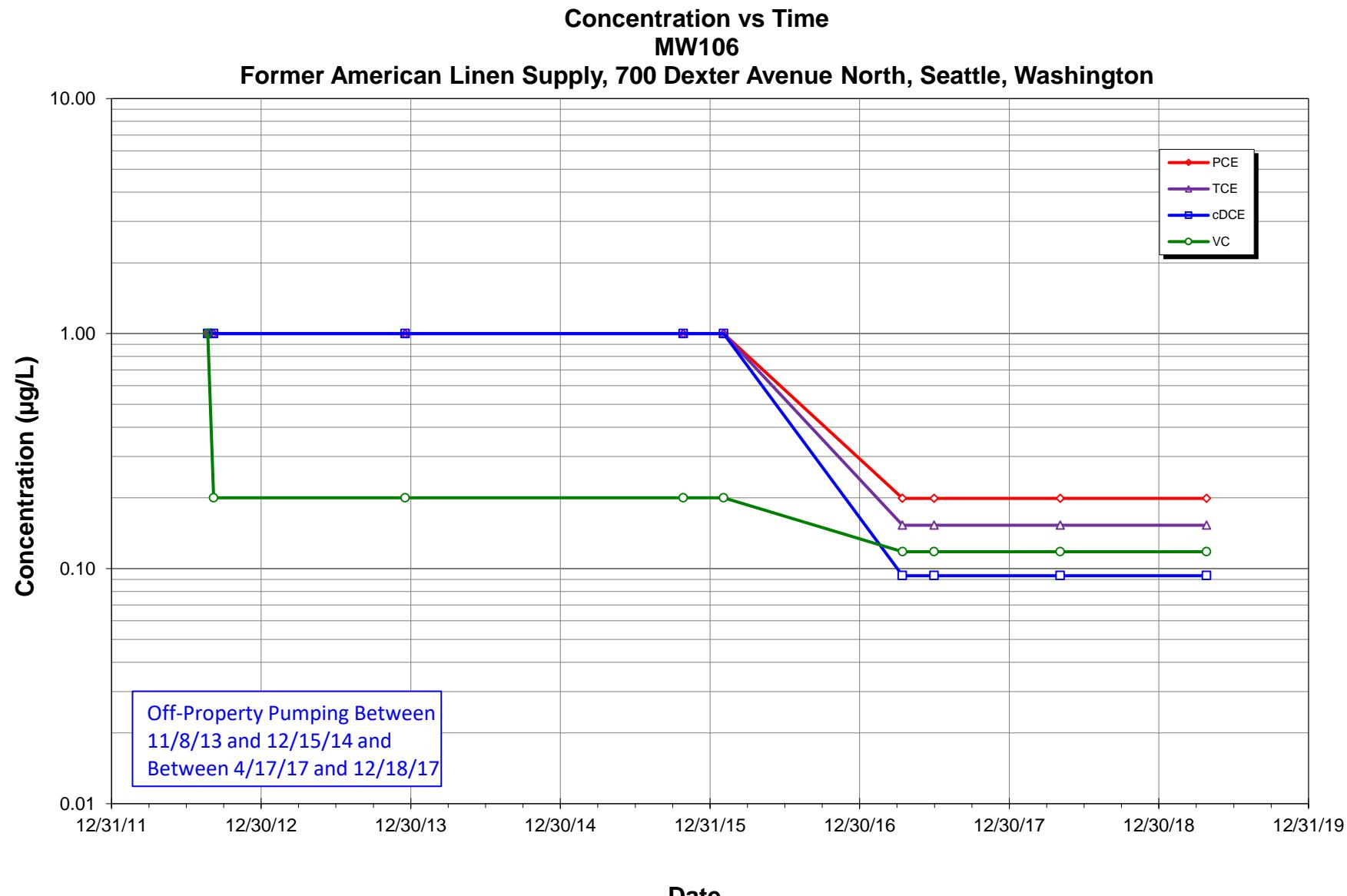
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g}/\text{L}$, TCE = 1 $\mu\text{g}/\text{L}$, cDCE = 16 $\mu\text{g}/\text{L}$, and VC = 0.2 $\mu\text{g}/\text{L}$.

**Notes:**

- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

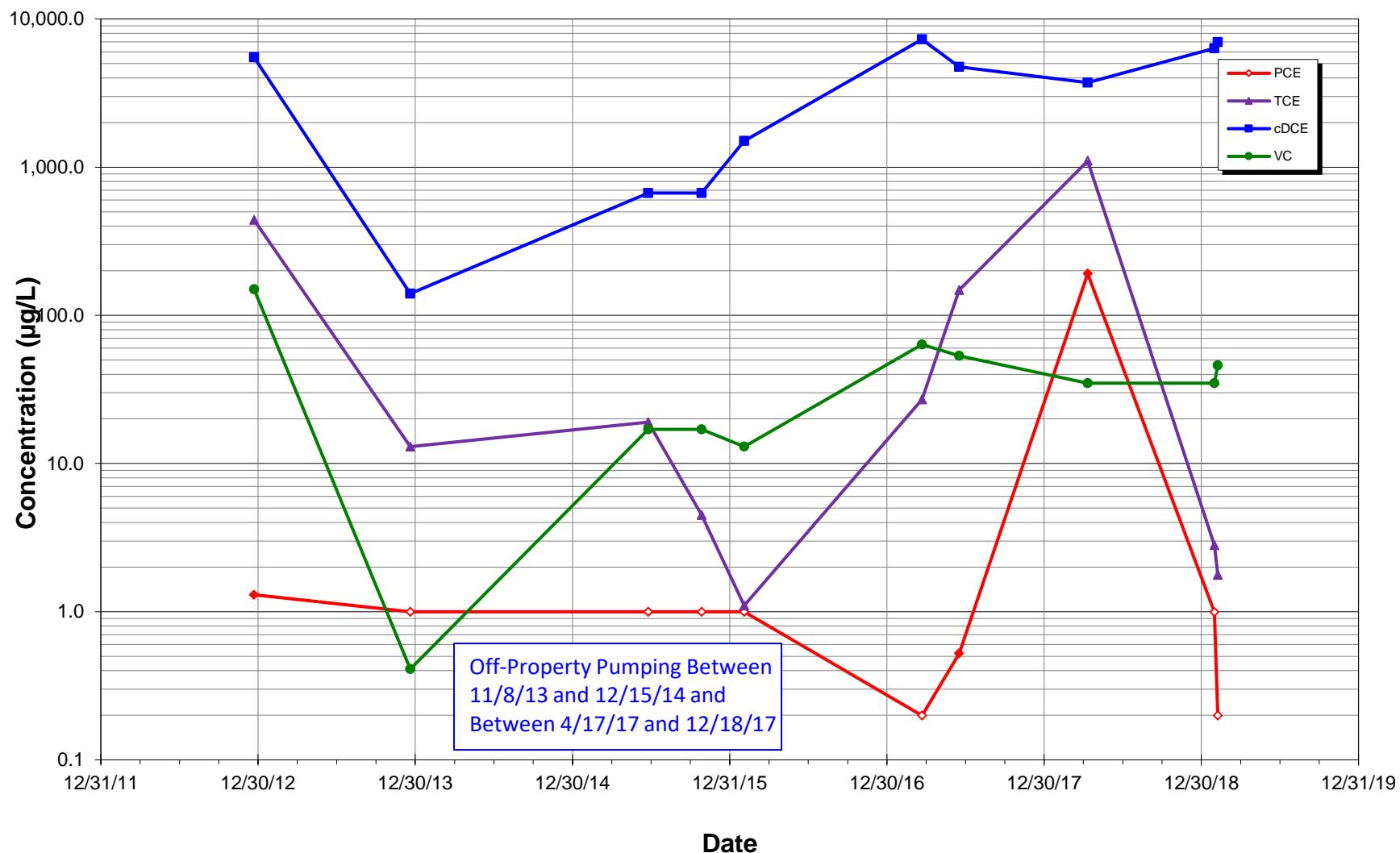
**Notes:**

- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

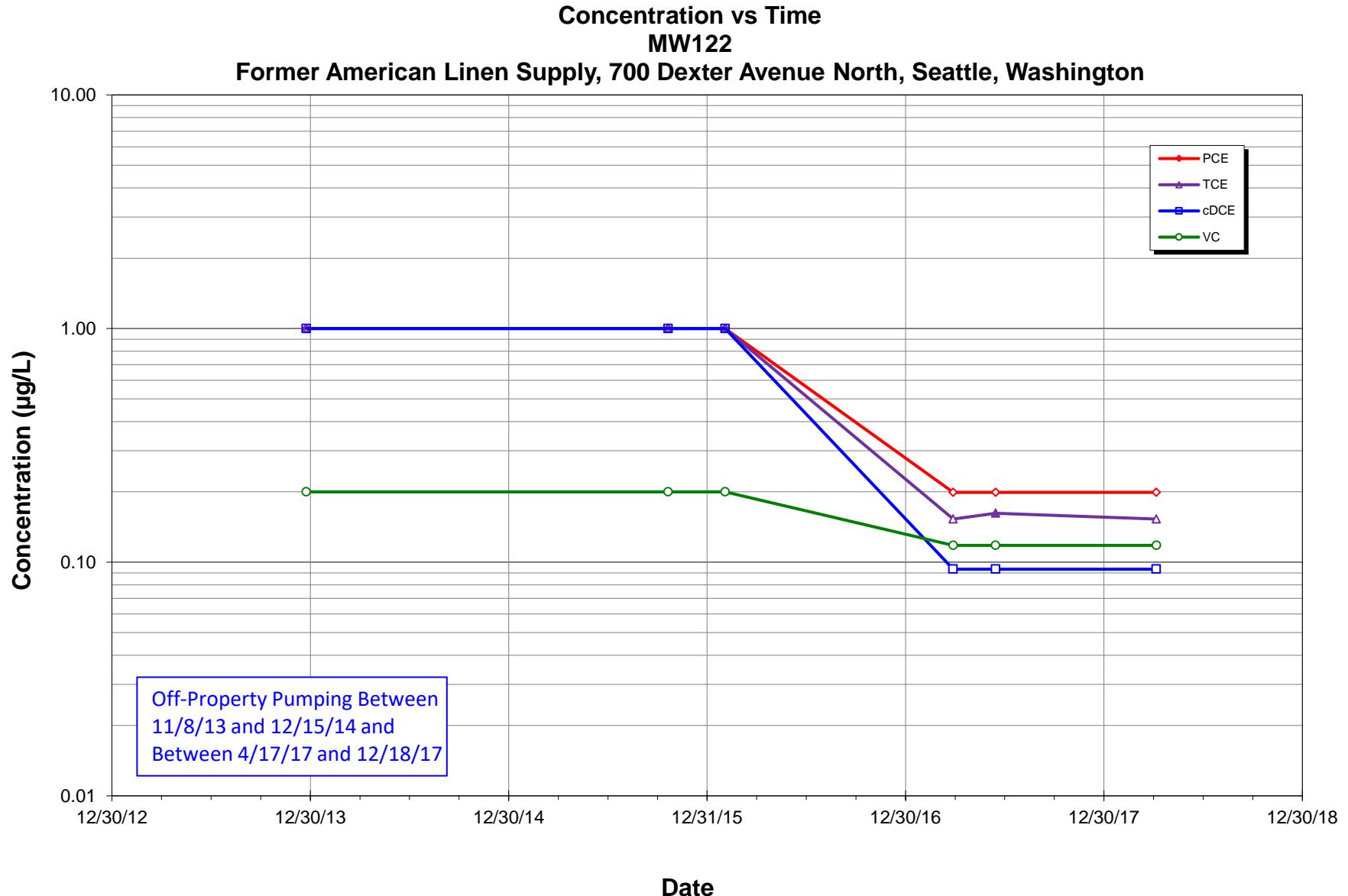
**Notes:**

- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

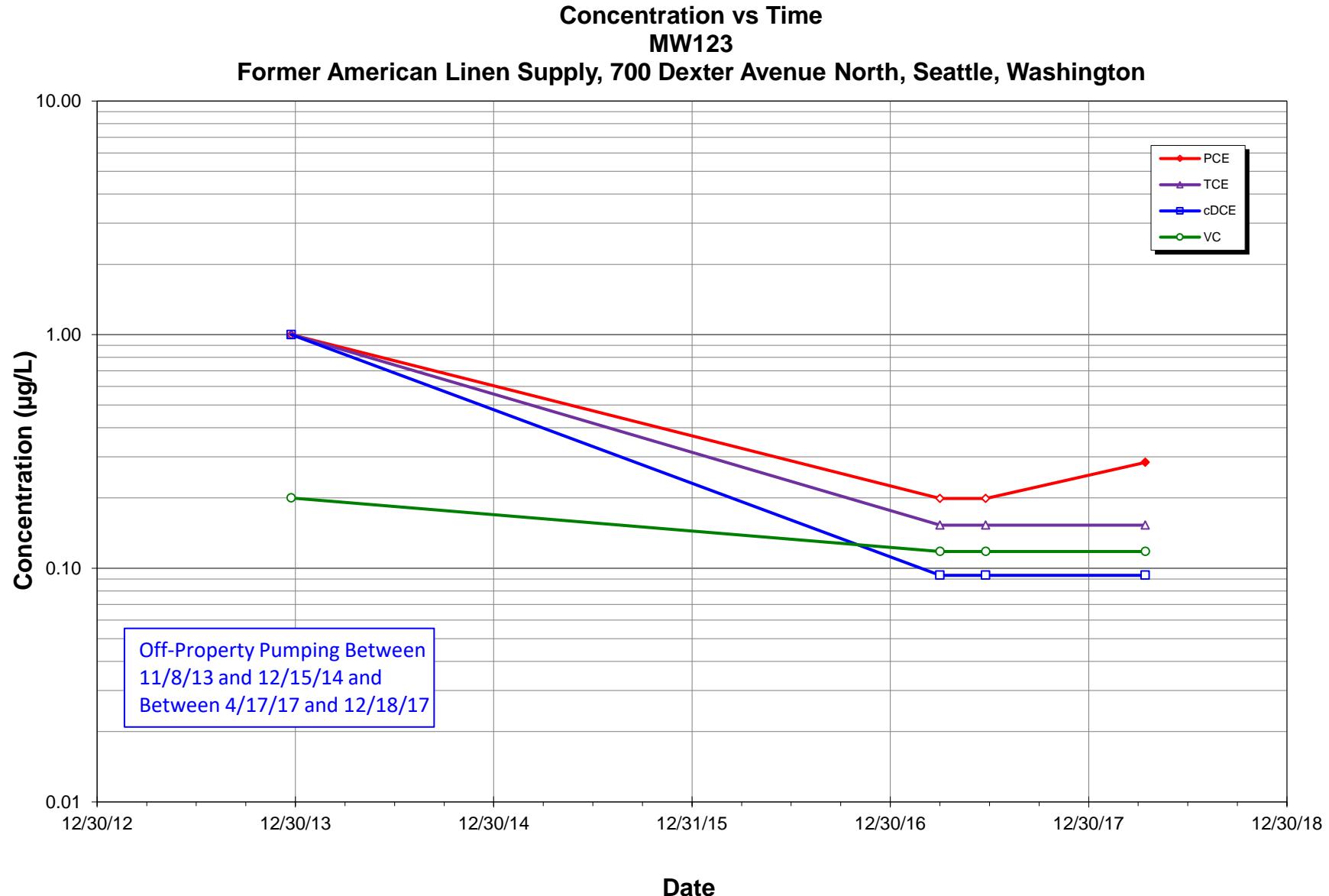
Concentration vs Time
MW113
Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

**Notes:**

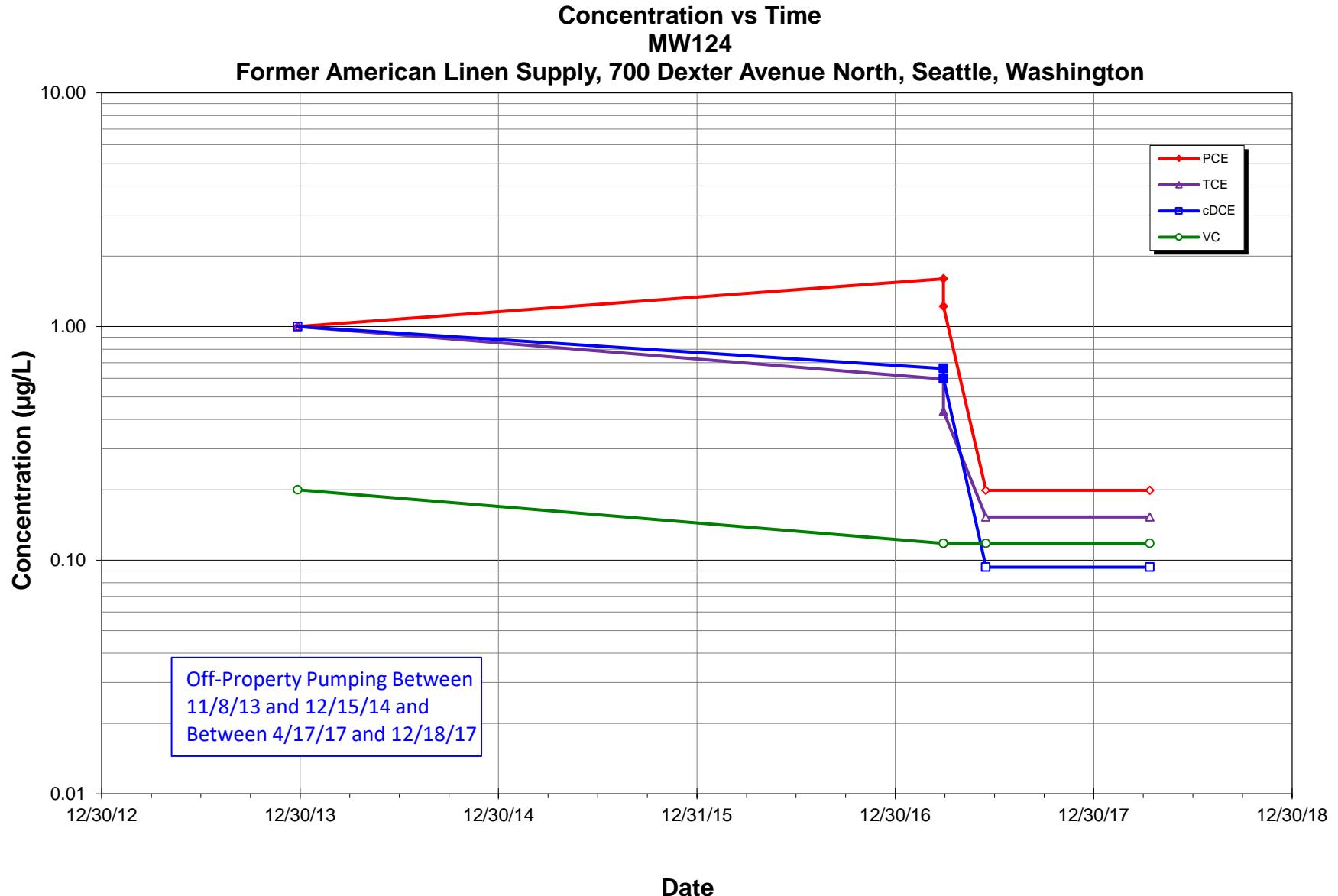
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g}/\text{L}$, TCE = 1 $\mu\text{g}/\text{L}$, cDCE = 16 $\mu\text{g}/\text{L}$, and VC = 0.2 $\mu\text{g}/\text{L}$.

**Notes:**

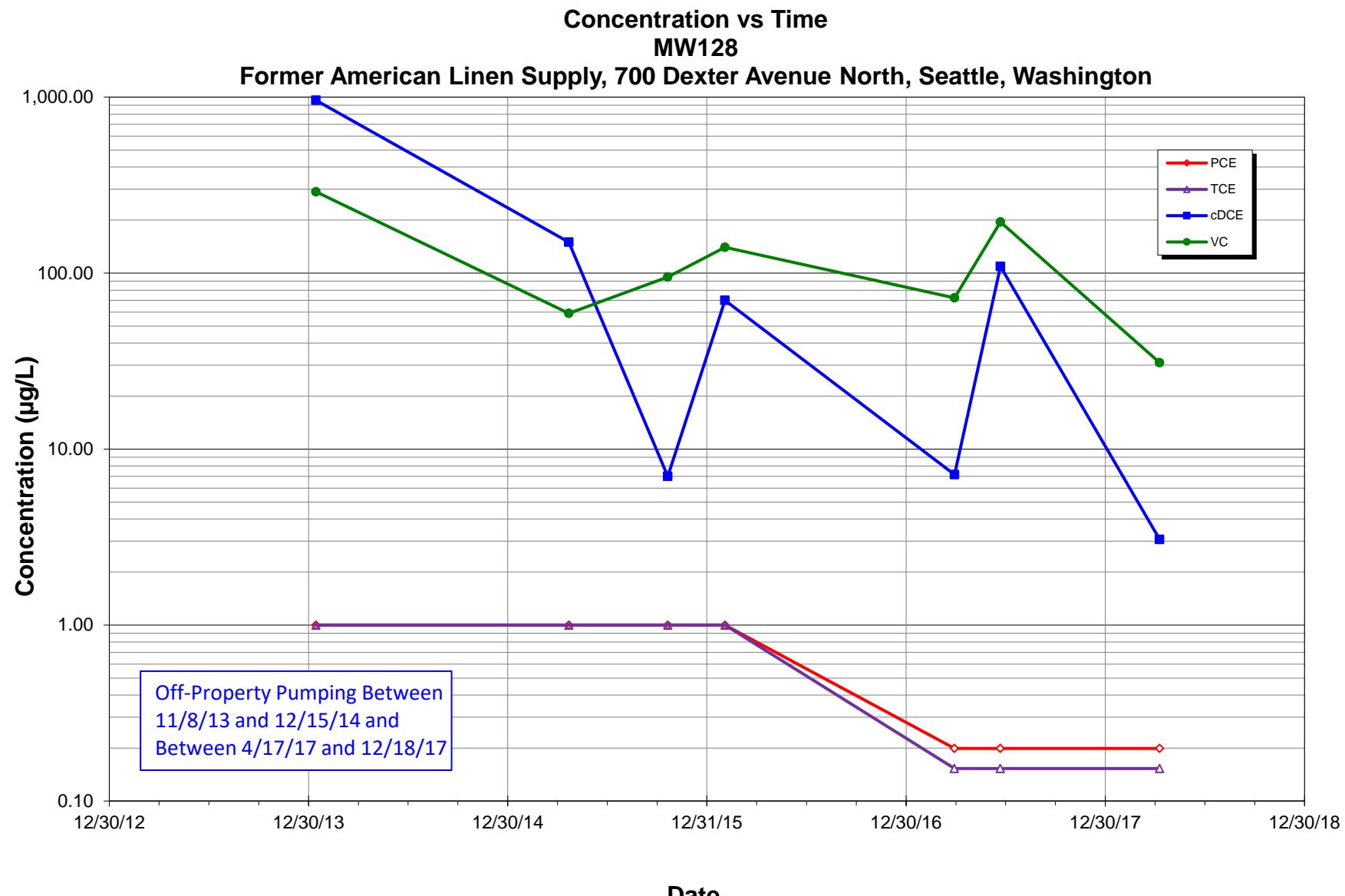
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

**Notes:**

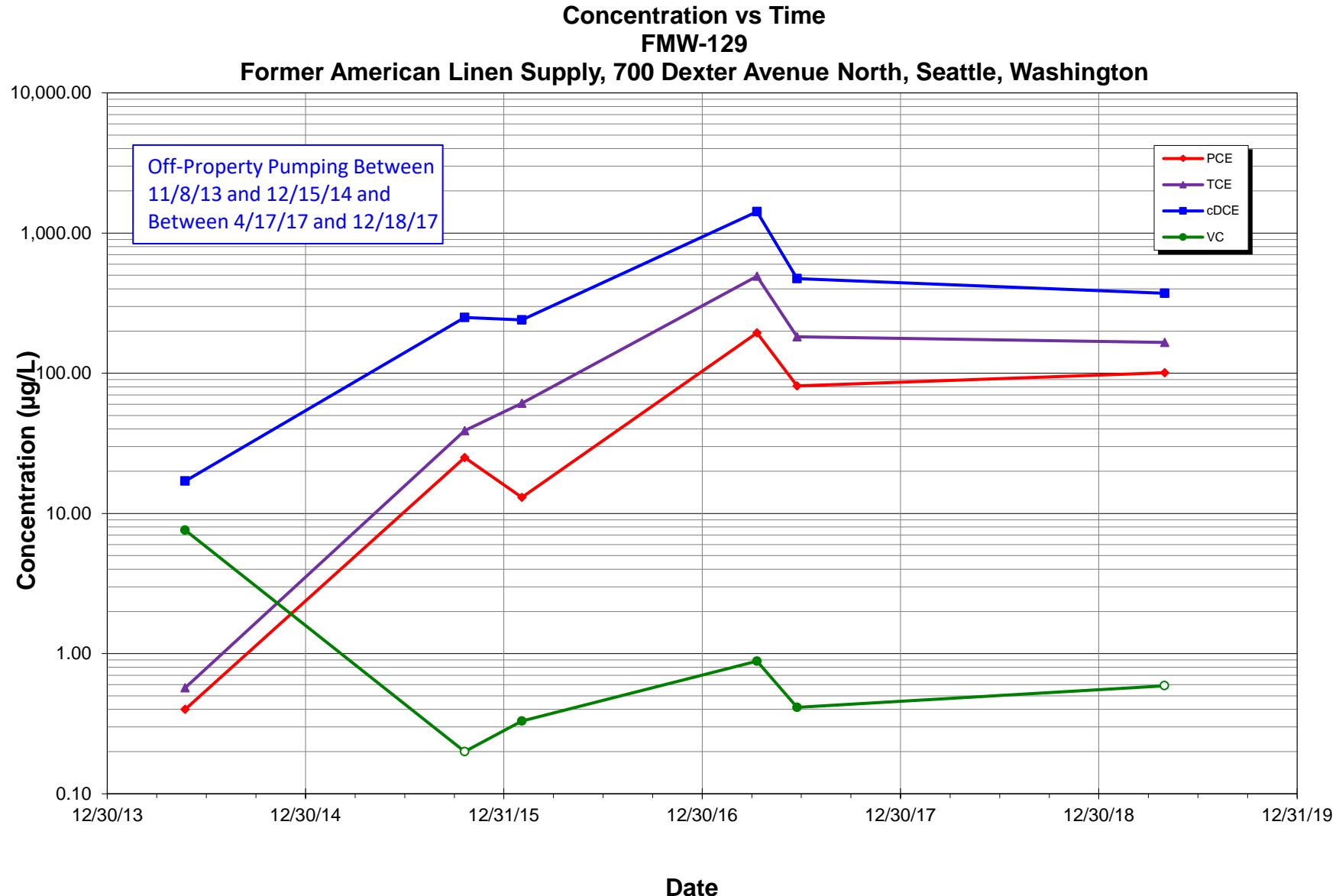
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

**Notes:**

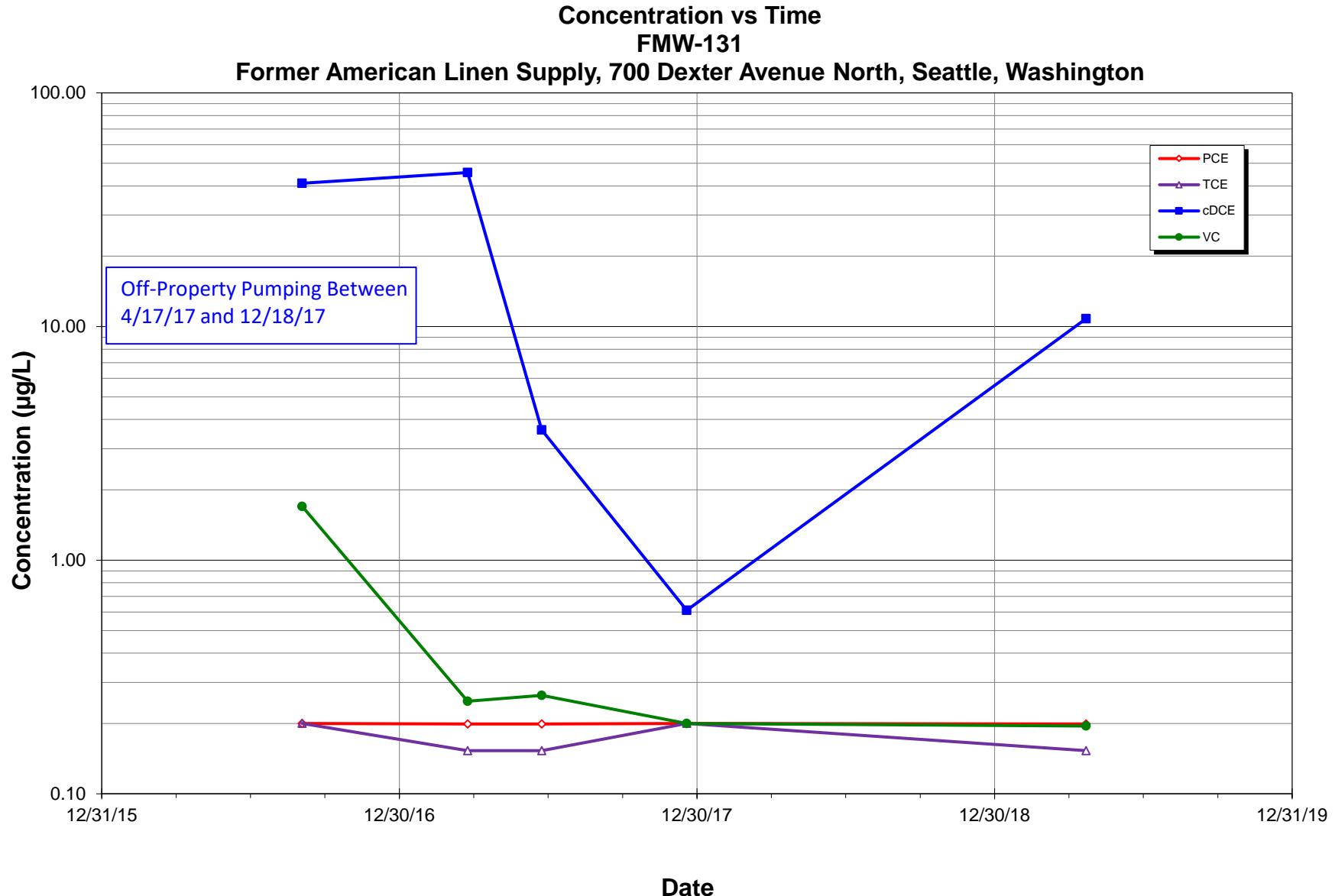
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

**Notes:**

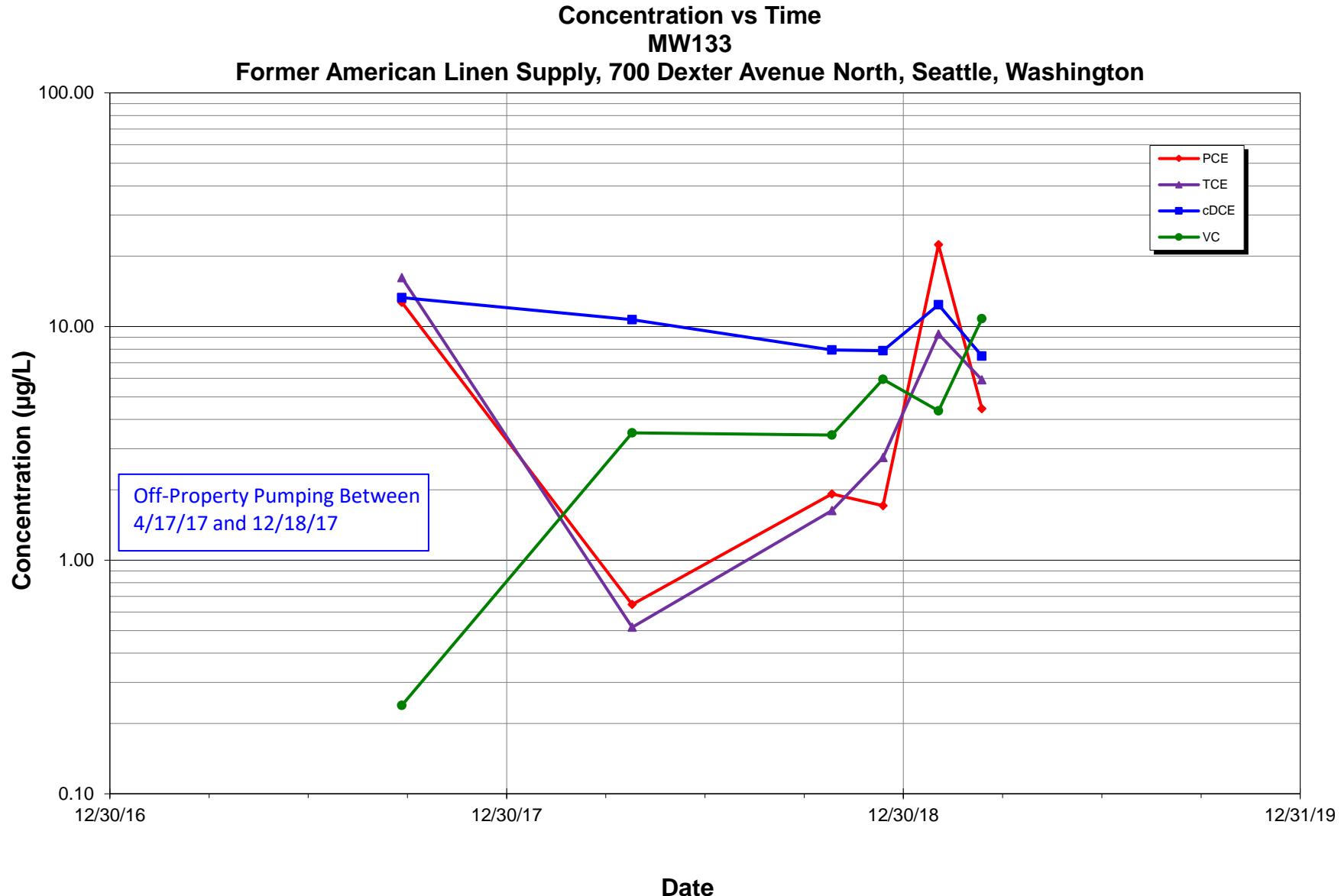
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

**Notes:**

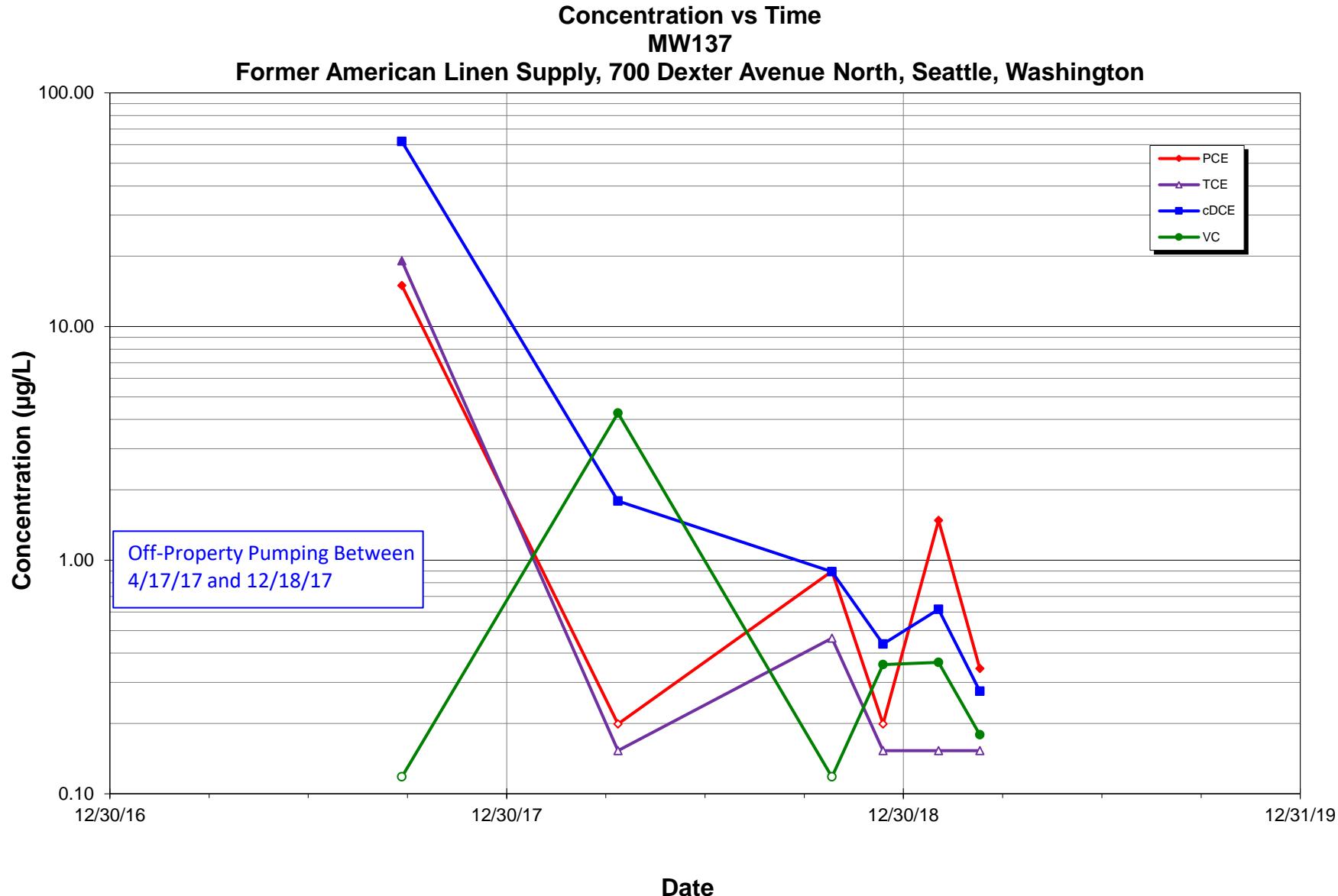
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

**Notes:**

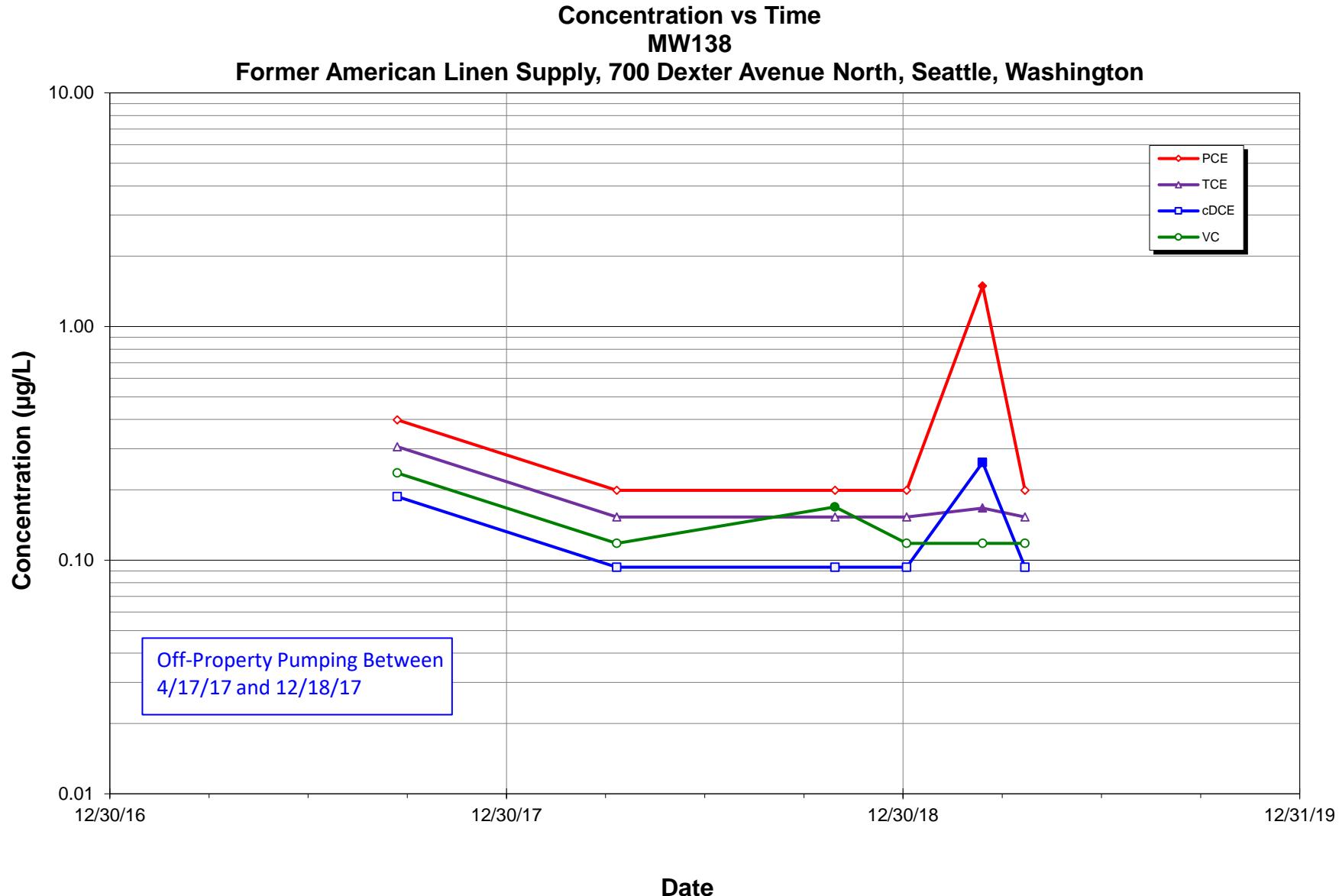
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 µg/L, TCE = 1 µg/L, cDCE = 16 µg/L, and VC = 0.2 µg/L.

**Notes:**

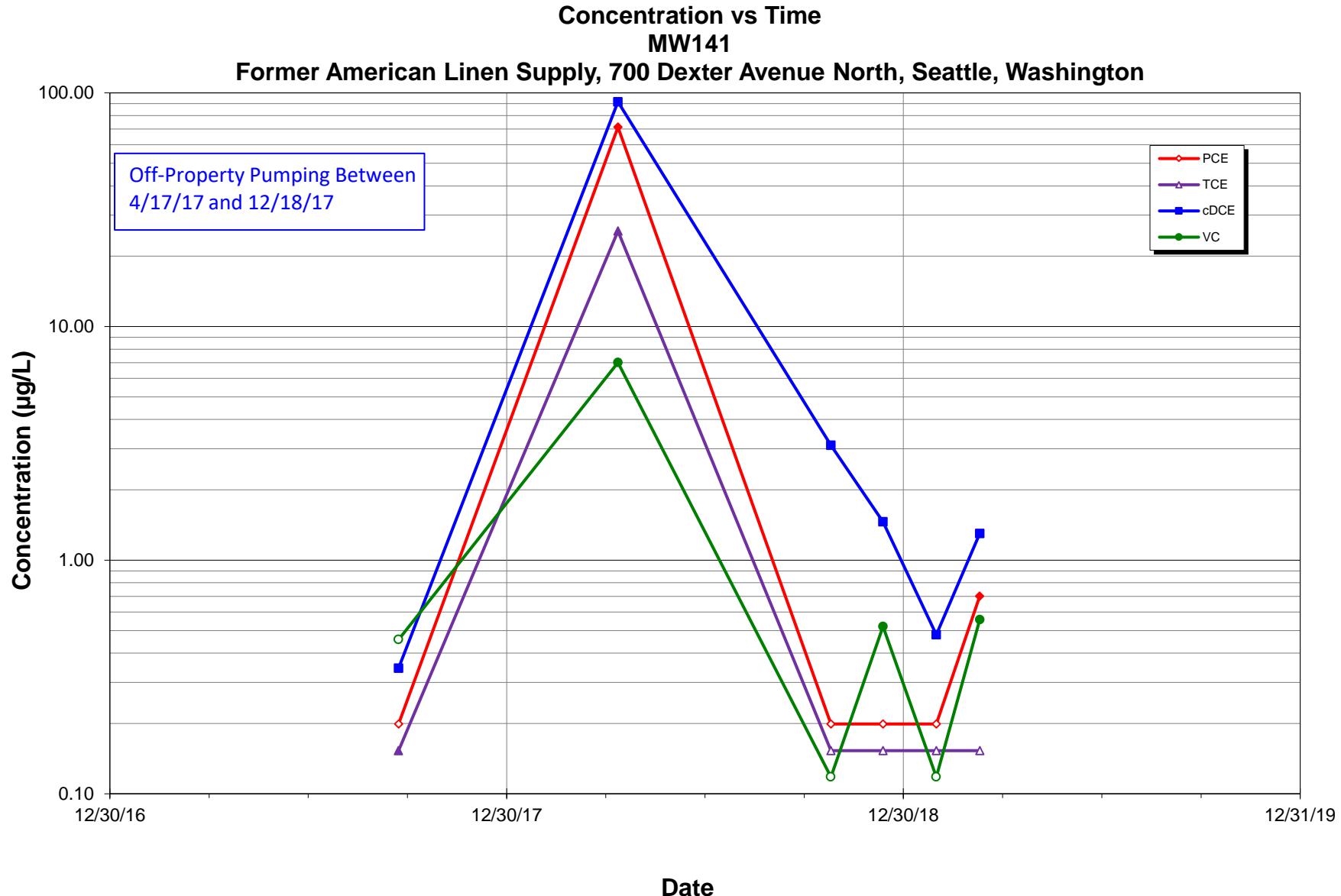
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

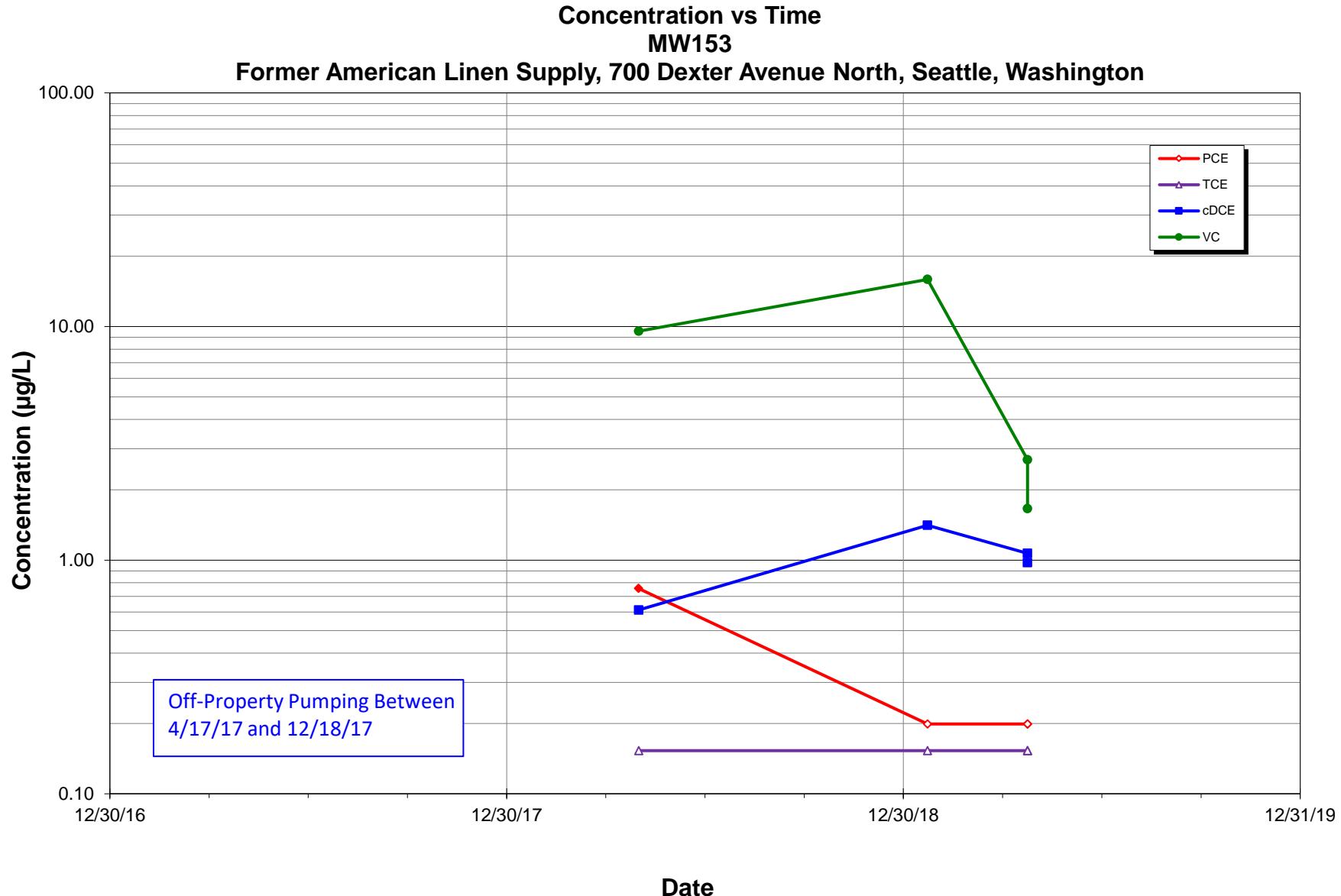
**Notes:**

- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

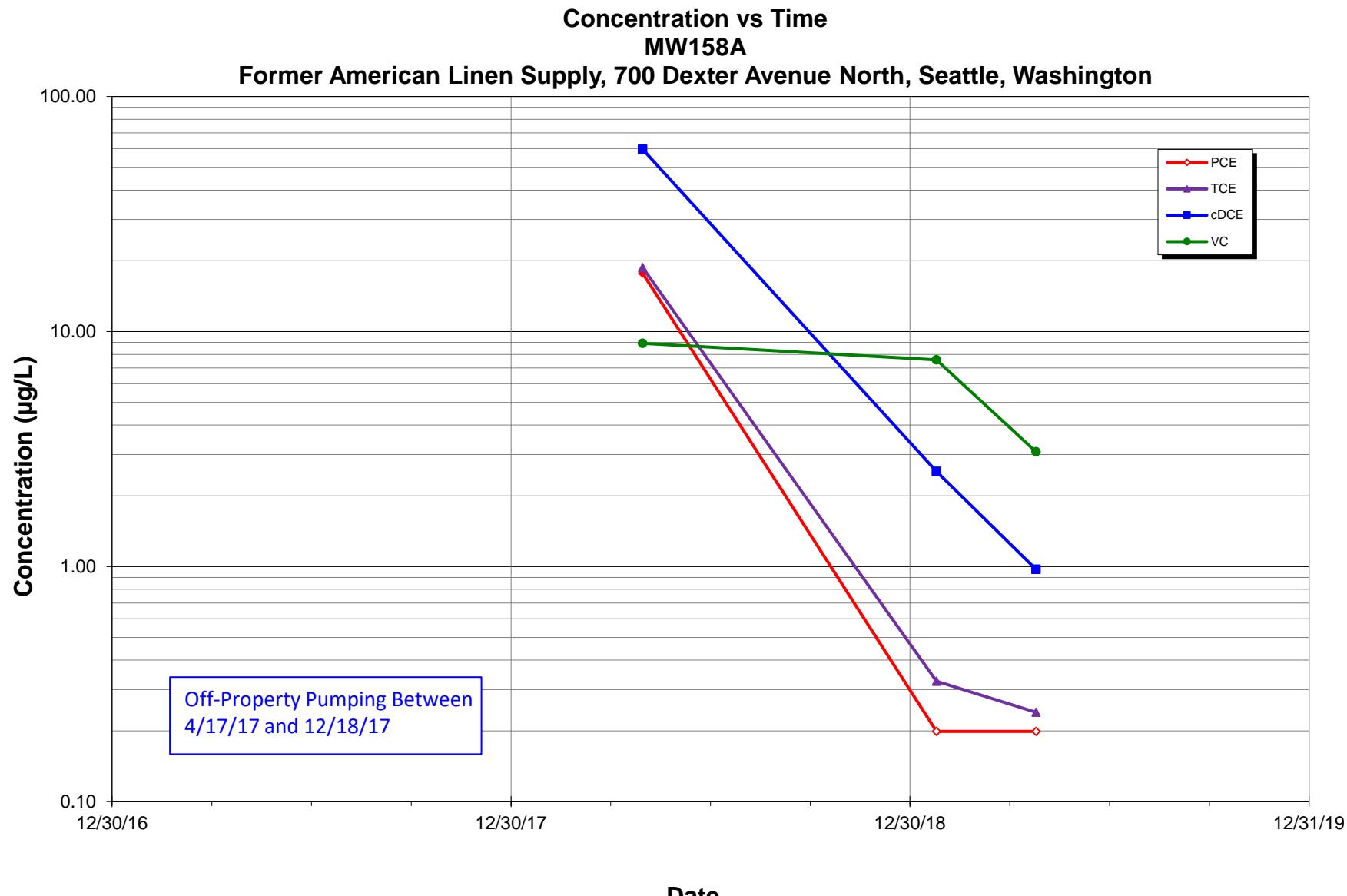
**Notes:**

- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

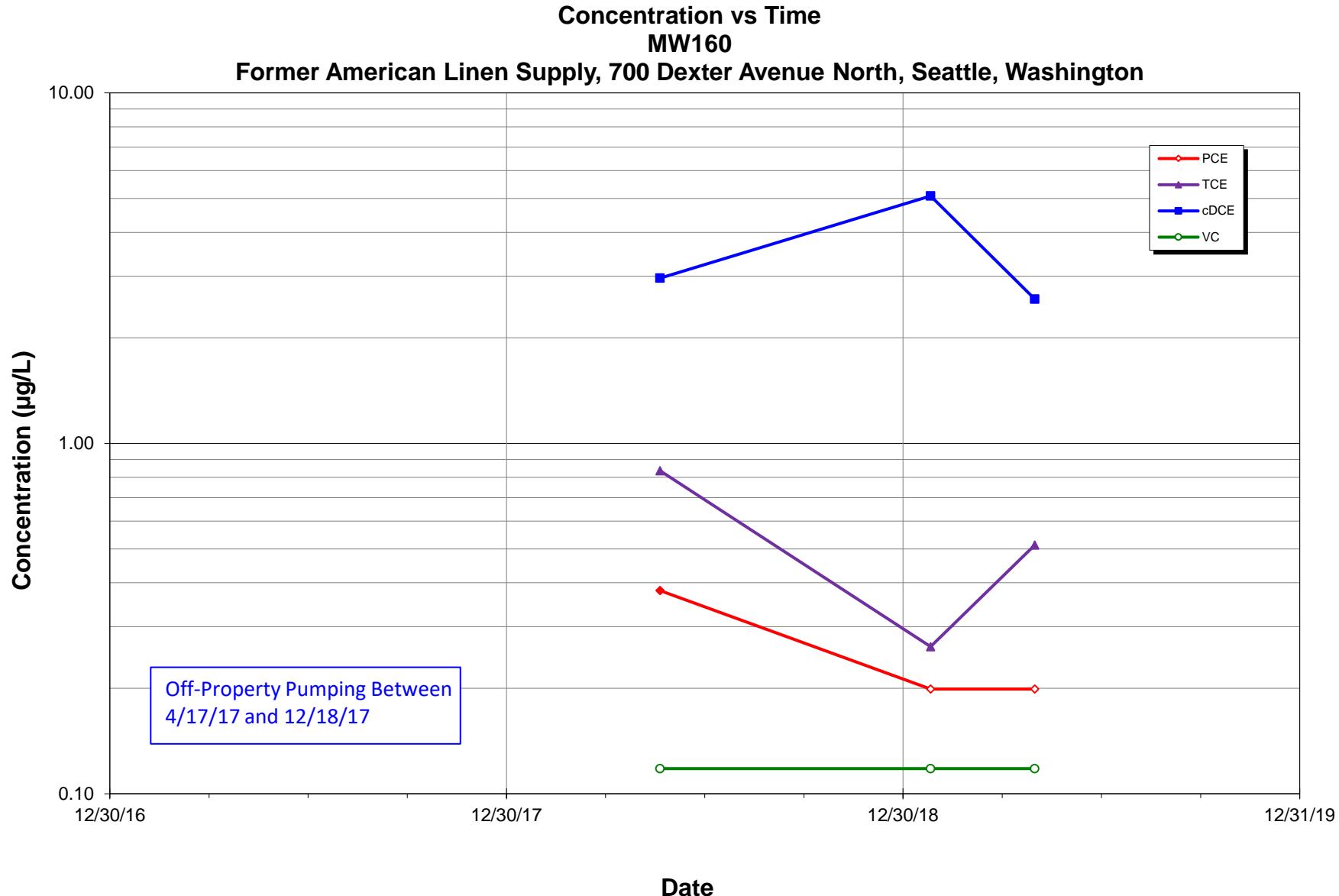


**Notes:**

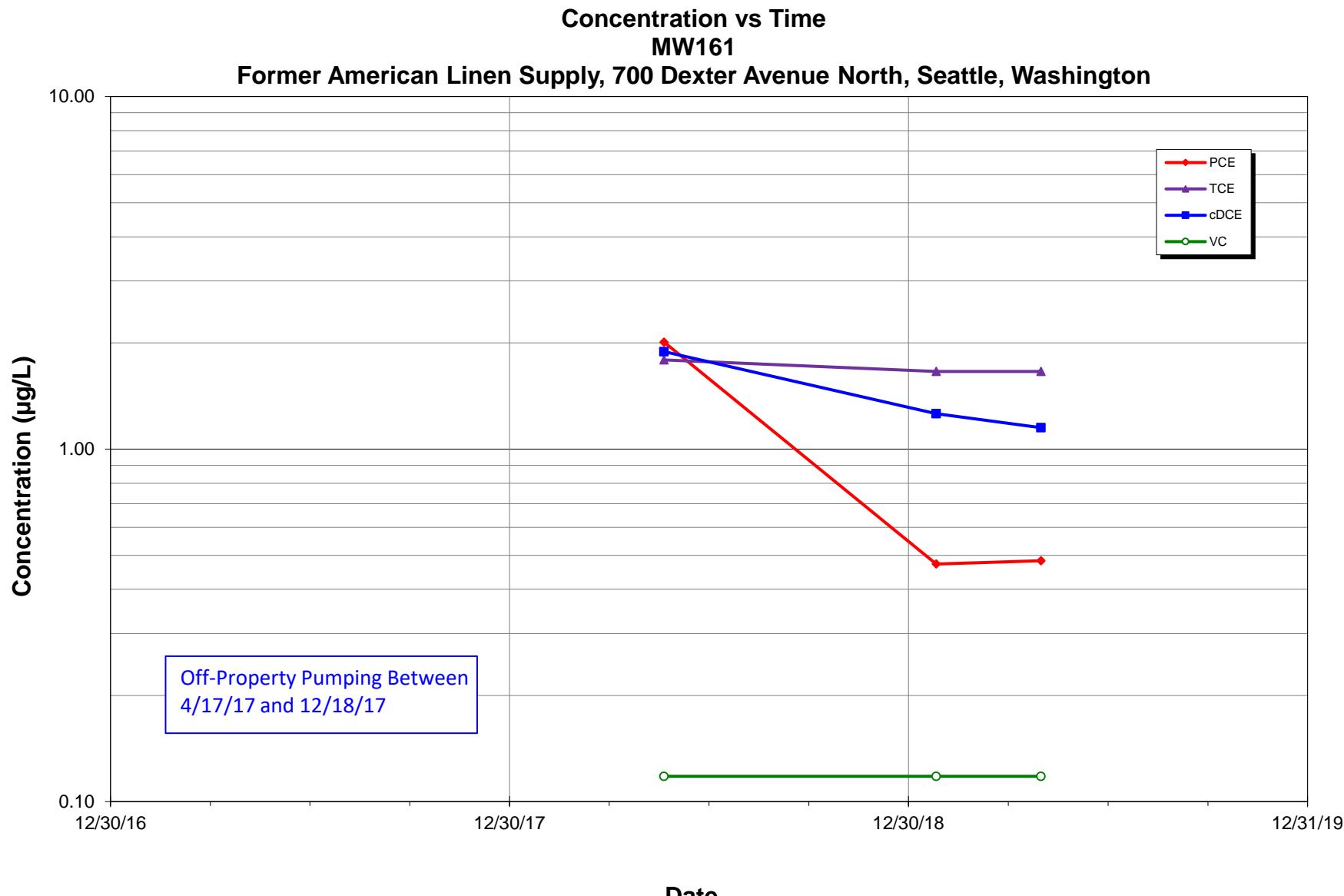
- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

**Notes:**

- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g}/\text{L}$, TCE = 1 $\mu\text{g}/\text{L}$, cDCE = 16 $\mu\text{g}/\text{L}$, and VC = 0.2 $\mu\text{g}/\text{L}$.

**Notes:**

- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

**Notes:**

- 1) All results detected below the laboratory MDLs are shown as hollow data points .
- 2) Preliminary Screening Levels: PCE = 1 $\mu\text{g/L}$, TCE = 1 $\mu\text{g/L}$, cDCE = 16 $\mu\text{g/L}$, and VC = 0.2 $\mu\text{g/L}$.

MEMORANDUM

TO: Project File **DATE:** May 23, 2019

FROM: Jessie Compeau

SUBJECT: Laboratory Data Validation Review

PROJECT: American Linen Data Validation

PROJECT #: 1413.001.05.601

TASK: EIM Data Validation Level EPA2A for April and May 2019 – Groundwater and Soil Vapor Samples

LAB: Pace Sample Delivery Groups (SDGs): L1091511, L1091936, L1091958, L1092400, L1092440, L1092880, L1093242, L1094387, L1094414, L1095166, and L1095349

Fifty-one (51) groundwater samples (including four field duplicates), four (4) soil vapor samples (including one field duplicate), one (1) equipment blank, and ten (10) trip blanks were collected as Round 2 Quarterly Monitoring sampling event at the Former American Linen Supply Site, in Seattle, Washington, between April 22, 2019 and May 3, 2019. The samples were shipped and delivered to Pace Lab Sciences (Pace) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- VOCs by USEPA Method TO-15;
- Total petroleum hydrocarbons as gasoline (TPH-Gx) by NWTPH-Gx per analytical method stipulated by Washington State Department of Ecology;
- VOCs by EPA SOP RSK 175;
- Alkalinity by Method 2320 B-2011;
- Anions (Chloride, Nitrate, and Sulfate) by USEPA Method 9056A;
- Total Organic Carbon (TOC) by USEPA Method 9060A; and
- Metals (iron and manganese) by USEPA Method 6020A.

Samples were collected between April 22 and May 3, 2019 and results are reported in eleven Pace SDGs (L1091511, L1091936, L1091958, L1092400, L1092440, L1092880, L1093242, L1094387, L1094414, L1095166, and L1095349). The quality assurance review of the sample data is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for a limited data validation review of analytical data along with PACE control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for

Superfund Organic Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017). Following Guidelines, non-project-specific laboratory duplicates and matrix spike results were not evaluated as part of this data validation.

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested with the following discussions:

- SDG L1091936: Review of the chain of custody (COC) and email communication between Pace and PES indicate that analyses requests were revised on April 24, 2019 for the following:
 - Sample MW155- 042319 analyses request was limited to VOCs by USEPA Method 8260 and gasoline by NWTPH-Gx.
 - Samples MW103- 042219 and MW111-042219 analyses requests were limited to VOCs by USEPA Method 8260.
 - Samples MW104-042319, MW105-042319, and MW147-042319 analyses requests included gasoline by NWTPH-Gx.
- SDG L1091958: Review of the chain of custody (COC) and email communication between Pace and PES indicate that analyses requests were revised on April 24, 2019 for the following:
 - Sample MW155- 042319 analyses request was limited to VOCs by USEPA Method 8260 and gasoline by NWTPH-Gx.
- SDG L1092400: Two copies of the COC form are provided for review. Pace was contacted to clarify illegible laboratory condition of sample receipt notes recorded on the COC. COC date and time entries are switched but no action is taken other than to note this.

Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice in coolers and delivered by courier to the analytical laboratory. The laboratory reported that the coolers were received at a cooler temperature less than the recommended temperature preservation less than 6°C. Samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260C:

All samples were analyzed for VOCs within the EPA recommended holding time of fourteen days for preserved waters from the date of collection. All holding time criteria are met.

USEPA Method TO-15:

The analyses for VOCs by Method TO-15 were performed within the 30-day recommended holding time limit for the air samples collected in Summa canisters. All holding time criteria are met.

NWTPH-Gx Method:

All samples were analyzed within the WA State recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria are met.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:

All samples were analyzed within the WA State recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria are met.

USEPA Method 6020A:

All samples were analyzed within the USEPA recommended holding time for arsenic of 180 days for preserved waters from the date of sample collection. All holding time criteria are met.

General Chemistry (Alkalinity, Chloride, Sulfate, Nitrate, and TOC):

All samples were analyzed within the USEPA recommended holding time for alkalinity (14 days), chloride (28 days), sulfate (28 days), and nitrate (48 hours), and TOC (28 days) for preserved waters from the date of sample collection. All holding time criteria are met.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however PACE's notes indicate the following:

- SDGs L1091511 and L1091936 - *USEPA Method 8260C*: Continuing calibration verification (CCV) issues are noted by Pace for acetone, bromomethane, chloroethane, trichlorofluoromethane, vinyl acetate, and vinyl chloride associated with analytical batch WG1271083 (analyzed on April 24, 2019). Associated sample results for these compounds are qualified by the laboratory "J0" to indicate that percent difference CCV is outside of laboratory acceptance criteria. **All associated sample results for these compounds are estimated and qualified (UJ/J).**
- SDG L1092400 - *USEPA Method 8260C*: CCV issues are noted by Pace for acetone, bromomethane, chloroethane, trichlorofluoromethane, and vinyl chloride associated with analytical batch WG1271083 (analyzed on April 25, 2019). Associated sample results for these compounds are qualified by the laboratory "J0" to indicate that percent difference CCV is outside of laboratory acceptance criteria. **All associated sample results for these compounds are estimated and qualified (UJ/J).**

- SDGs L1092440 and L1092880 - *USEPA Method 8260C*: CCV issues are noted by Pace for acetone, bromomethane, chloroethane, trichlorofluoromethane, and vinyl chloride associated with analytical batch WG1272563 (analyzed on April 26, 2019). Associated sample results for these compounds are qualified by the laboratory “J0” to indicate that percent difference CCV is outside of laboratory acceptance criteria. **All associated sample results for these compounds are estimated and qualified (UJ/J).**
- SDGs L1091936 and L1091958 - *USEPA Method 8260C*: CCV issues are noted by Pace for acetone, bromomethane, chloroethane, trichlorofluoromethane, and vinyl chloride associated with analytical batch WG1271705 (analyzed on April 25, 2019). Associated sample results for these compounds are qualified by the laboratory “J0” to indicate that percent difference CCV is outside of laboratory acceptance criteria. **All associated sample results for these compounds are estimated and qualified (UJ/J).**
- SDG L1094387 - *USEPA Method 8260C*: CCV issues are noted by Pace for chloroethane, chloromethane, naphthalene, trichlorofluoromethane, vinyl acetate, and vinyl chloride associated with analytical batch WG1275813 (analyzed on May 3, 2019). Associated sample results for these compounds are qualified by the laboratory “J0” to indicate that percent difference CCV is outside of laboratory acceptance criteria. **All associated sample results for these compounds are estimated and qualified (UJ/J).**
- SDG L1094414 - *USEPA Method 8260C*: CCV issues are noted by Pace for acetone, bromomethane, chloroethane, trichlorofluoromethane, and vinyl chloride associated with analytical batch WG1275905 (analyzed on May 3, 2019). Associated sample results for these compounds are qualified by the laboratory “J0” to indicate that percent difference CCV is outside of laboratory acceptance criteria. **All associated sample results for these compounds are estimated and qualified (UJ/J).**

Method Blank Results

USEPA Method 8260C:

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes were not detected in the method blanks at or above the reporting detection limits (RDLs) with the following exceptions:

- SDGs L1091511 and L1091936 - Analytical batch WG1271083: A low level of hexachloro-1,3-butadiene is detected in the method blank. No action was necessary since hexachloro-1,3-butadiene is not detected in the associated samples.
- SDGs L1092400, L1091936, and L1091958 - Analytical batch WG1271705: A low level of hexachloro-1,3-butadiene is detected in the method blank. No action was necessary since hexachloro-1,3-butadiene is not detected in the associated samples.

- SDG L1093242 - Analytical batch WG1272804: A low level of hexachloro-1,3-butadiene is detected in the method blank. No action was necessary since hexachloro-1,3-butadiene is not detected in the associated samples.
- SDG L1094414 - Analytical batch WG1275905: A low level of acetone is detected in the method blank. Low levels of acetone are also detected in the Trip Blank and associated equipment blank. **Acetone detections in samples MW102-050119 and MW160-050119 are detected below the RDL are qualified (U) as non-detects due to trip, equipment, and/or method blank contamination.**
- SDG L1094387 - Analytical batch WG1275813: Low levels of carbon disulfide, hexachloro-1,3-butadiene, and 1,2,3-trichlorobenzene are detected in the method blank. No action was necessary since these compounds are not detected in the associated samples.

USEPA Method TO-15:

A laboratory method blank is included with the analytical batch per method requirement. The target analytes were not detected in the method blank at or above the RDLs.

NWTPH-Gx Method:

Laboratory method blanks were included with the analytical batches per method requirement. The target analyte (gasoline) was not detected in the method blanks at or above the RDLs with the following exception:

- SDG L1095349 - Analytical batch WG1277188: Gasoline is detected at a low level (below the RDL) in the method blank. No action is taken since gasoline is detected but not detected below the RDLs in associated samples.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (dissolved gases) are not detected in the method blanks at or above the RDLs.

USEPA Method 6020A and General Chemistry (Alkalinity, Chloride, Sulfate, Nitrate, and TOC):

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes were detected in the method blanks below the RDLs. Per Guidance, no action is taken for blank detections less than the RDL when associated sample detections are greater than the RDL.

SDG	Batch	Method	Analyte	Result	Qualifier	MRL	Units	Associated Result(s) Qualified
L1091511	WG1273424	SM2320B	Alkalinity as CaCO ₃ , Total	3140	J	20000	ug/L	NO
L1091511	WG1270623	9060A	TOC	258	J	1000	ug/L	NO
L1091936	WG1273424	SM2320B	Alkalinity as CaCO ₃ , Total	3140	J	20000	ug/L	NO
L1091936	WG1271082	9056A	Nitrate	26.3	J	100	ug/L	NO
L1091936	WG1271094	9060A	TOC	229	J	1000	ug/L	NO
L1091958	WG1273427	SM2320B	Alkalinity as CaCO ₃ , Total	3360	J	20000	ug/L	NO

L1091958	WG1271082	9056A	Nitrate	26.3	J	100	ug/L	NO
L1091958	WG1271096	9060A	TOC	485	J	1000	ug/L	NO
L1092400	WG1273429	SM2320B	Alkalinity as CaCO ₃ , Total	3160	J	20000	ug/L	NO
L1092400	WG1272243	9060A	TOC	568	J	1000	ug/L	NO
L1092440	WG1271844	6020B	Iron	87.3	J	100	ug/L	NO
L1092440	WG1271844	6020B	Manganese	1.84	J	5.00	ug/L	NO
L1092880	WG1274856	SM2320B	Alkalinity as CaCO ₃ , Total	3100	J	20000	ug/L	NO
L1092880	WG1271844	6020B	Iron	87.3	J	100	ug/L	NO
L1092880	WG1271844	6020B	Manganese	1.84	J	5.00	ug/L	NO
L1092880	WG1273394	9060A	TOC	284	J	1000	ug/L	NO
L1093242	WG1275809	SM2320B	Alkalinity as CaCO ₃ , Total	3110	J	20000	ug/L	NO
L1093242	WG1273394	9060A	TOC	284	J	1000	ug/L	NO
L1093242	WG1271844	6020B	Iron	87.3	J	100	ug/L	NO
L1093242	WG1271844	6020B	Manganese	1.84	J	5.00	ug/L	NO
L1094387	WG1276578	SM2320B	Alkalinity as CaCO ₃ , Total	5510	J	20000	ug/L	NO
L1094387	WG1276578	9060A	TOC	198	J	1000	ug/L	NO
L1094414	WG1276579	SM2320B	Alkalinity as CaCO ₃ , Total	3670	J	20000	ug/L	NO
L1094414	WG1275310	9060A	TOC	205	J	1000	ug/L	NO
L1095349	WG1278682	SM2320B	Alkalinity as CaCO ₃ , Total	3040	J	20000	ug/L	NO
L1095349	WG1276616	9060A	TOC	349	J	1000	ug/L	NO

Trip Blank Results

USEPA Method 8260C and NWTPH-Gx:

Ten trip blanks were collected and submitted for analysis. The target analytes were not detected in the trip blanks at or above the reporting detection limits (RDLs) with the following exceptions:

- SDG L1092400 - Analytical batch WG1271705: A low level of acetone is detected (below the RDL) in the trip blank. **Associated low level acetone detections, below the RDL, in samples MW-153-042419, MW-909-042419, MW-146-042419, and MW-154-042419 are qualified as not detected (U).**
- SDG L1092440 - Analytical batch WG1272563: A low level of acetone is detected (below the RDL) in the trip blank. **Associated low level acetone detections, below the RDL, in samples MW-125-042319, MW-143-042419, MW-908-042419, MW-142-042419, MW-156-042419, and MW-157-042419 are qualified as not detected (U).**
- SDG L1092880 - Analytical batch WG1272563: A low level of acetone is detected (below the RDL) in the trip blank. **Associated low level acetone detections, below the RDL, in samples MW-158-042519, W-MW-01-042519, and R-MW6-042519 are qualified as not detected (U).**
- SDG L1093242 - Analytical batch WG1272804: A low level of acetone is detected (below the RDL) in the trip blank. **Associated low level acetone detections, below the RDL, in samples MW106-042619, MW145-042619, MW-910-042619, and MW-178-042619 are qualified as not detected (U).**

- SDG L1094387 - Analytical batch WG1275813: A low level of acetone is detected (below the RDL) in the trip blank. **Associated low level acetone detections, below the RDL, are detected in all samples and are qualified as not detected (U).**
- SDG L1094414 - Analytical batch WG1277193: A low level of acetone is detected (below the RDL) in the trip blank. **Associated low level acetone detections, below the RDL, in samples MW102-050119 and MW160-050119 are qualified as not detected (U) due to trip, equipment, and/or method blank contamination.**

Field, Rinsate, or Equipment Blank Results

All Analytical Methods:

One equipment blank (EQ-050119) was collected and analyzed for VOCs, gasoline, dissolved gases (methane, ethane, and ethene), wet chemistry parameters (alkalinity, chloride, nitrate, sulfate, and TOC), and metals (iron and manganese). Review of the equipment blank results are as follows:

- SDG L1094414: An equipment blank sample (EQ-050119) was collected on May 1, 2019 from the bladder pump associated with samples MW102-050119 and MW160-050119. The target analytes were not detected in the equipment blank at or above the RDLs with the following exceptions:
 - Low levels of acetone, bromodichloromethane, chlorodibromomethane, and chloroform (below the RDL) are detected in the equipment blank. No action was needed for chloroform as it was not detected in the associated samples. **Sample MW102-050119 and MW160-050119 acetone detections are less than the RDL and are qualified (U) as not detected due to equipment, trip and/or method blank contamination.** Low levels of alkalinity, chloride, TOC, iron, and manganese were also detected in the equipment blank. No action was taken on this basis since associated detections in samples MW102-050119 and MW160-050119 are either above the RDL or are not detected.

Field Duplicate Analyses

Field duplicate pairs were submitted and analyzed. Field duplicate sample pair is as follows:

- SDG L1092400: Samples MW153-042419 and MW909-042419
- SDG L1092440: Samples MW156-042419 and MW908-042419
- SDG L1093242: Samples MW159-042619 and MW910-042619
- SDG L1095349: Samples MW120-050319 and MW911-050319
- SDG L1095166: Samples SV01-042919 and SV01-042919-D

Target analyte results are comparable and within a relative percent difference (RPD) of 30% for the field duplicate pair with the following exceptions:

- SDG L1092400: Samples MW153-042419 and MW909-042419: Iron and vinyl chloride results are not comparable with RPDs greater than 30% (for results < 5X RDL the absolute difference < 1X RDL). **Field duplicate results for iron and vinyl chloride are estimated and qualified (J).**
- SDG L1092440: Samples MW156-042419 and MW908-042419: Nitrate results are not comparable with RPDs greater than 30% (for results < 5X RDL the absolute difference < 1X RDL). **Field duplicate results for nitrate are estimated and qualified (J).**
- SDG L1095349: Samples MW120-050319 and MW911-050319: Iron and methane results are not comparable with RPDs greater than 30% (for results < 5X RDL the absolute difference < 1X RDL). **Field duplicate results for iron and methane are estimated and qualified (J).**

Laboratory Duplicate Analyses

USEPA Method 8260C:

Laboratory duplicate samples were not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) or matrix spike/matrix spike duplicates (MS/MSDs) results for precision data.

NWTPH-Gx Method:

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD or MS/MSDs results for precision data.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:

Laboratory duplicate sample analyses were performed on client and non-client samples within the analytical batches. The primary/duplicate RPDs for dissolved gas analyses are within the laboratory control limit of 20%.

USEPA Method 6020A:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) or matrix spike/matrix spike duplicates (MS/MSDs) results for precision data.

General Chemistry (Alkalinity, Chloride, Sulfate, Nitrate, and TOC):

A laboratory duplicate sample was performed on client samples and on non-client samples. The primary/duplicate RPDs for general chemistry parameters are within the laboratory control limits with the following discussions:

- SDG L1092440: Non client sample alkalinity RPD result exceeds 20%. No action is taken since the duplicate was performed on a non-client sample refer to field duplicate results for precision data.
- SDGs L1094414 and L1094387: A laboratory duplicate was performed on the equipment blank (EQ-050119) with a low-level chloride RPD result greater than laboratory QC

criteria of 15%. No action is taken since the results are less than the RDL and the duplicate was performed on the equipment blank.

Surrogate Recoveries

USEPA Method 8260C:

The surrogate recovery results for the samples, laboratory control samples, matrix spike samples, trip blanks, equipment blank, and the method blanks are within the laboratory surrogate control limits for all the analyses.

USEPA Method TO-15:

The surrogate recovery results for the samples, laboratory control samples, and the method blanks are within the laboratory surrogate control limits for all the analyses.

NWTPH-Gx Method:

The surrogate recovery results for the samples, laboratory control samples, matrix spike samples, trip blanks, equipment blank, and the method blanks are within the laboratory surrogate control limits for all analyses.

Laboratory Control Samples

USEPA Method 8260C:

Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) or laboratory control sample (LCS) were analyzed by USEPA Method 8260C method. The LCS % Rs or LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for waters with the following discussions and exceptions:

- SDG L1092400 - Analytical batch WG1271705: LCSD recovery for acetone is above control limit criteria and laboratory qualified (J4). LCS/LCSD recoveries for acetone are wide and the RPD is above control limit criteria and laboratory qualified (J3). No action was taken on this basis since acetone was detected at a low level in the trip blank (Trip Blank). For further discussion refer to the Trip Blank Results section for details.
- SDGs L1091936 and L1091958 - Analytical batch WG1271705: LCSD recovery for acetone is above control limit criteria and laboratory qualified (J4). LCS/LCSD recoveries for acetone are wide and the RPD is above control limit criteria and laboratory qualified (J3). **Associated acetone results are already estimated and qualified (J) due to calibration issues.** Refer to the Initial and Continuing Calibration section for additional details.
- SDGs L1092440 and L1092880 - Analytical batch WG1272563: LCS/LCSD recoveries for 2-hexanone are within but are recovered wide, the RPD is above control limit criteria, and results are laboratory qualified (J3). No action is taken other than to note this.
- SDG L1092400 - Analytical batch WG1274056. No LCSD was analyzed for cis-1,2-dichloroethene. Refer to field duplicate results for precision data.

- SDG L1092400 - Analytical batch WG1274056. No LCSD was analyzed for cis-1,2-dichloroethene. Refer to field duplicate results for precision data.
- SDG L1094387 - Analytical batch WG1275813. LCSD recovery for acetone is above control limit criteria and laboratory qualified (J4). No action is taken on this basis since associated acetone results are qualified (U) as not detected due to trip blank contamination. For further discussion refer to the section on Trip Blank Results. LCS/LCSD recoveries for vinyl chloride are below control limit criteria and laboratory qualified (J4). **All associated vinyl chloride results are estimated and qualified (J/UJ) due to low LCS/LCSD recoveries.**
- SDG L1095349 - Analytical batch WG1277852. No LCSD was analyzed for VOCs. Refer to field duplicate results for precision data.

USEPA Method TO-15:

Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) were analyzed for the VOCs by TO-15 along with each analytical batch. LCS/LCSD %Rs and relative percent differences (RPDs) are within QC criteria.

NWTPH-Gx Method:

The LCS or LCS/LCSD %Rs and RPDs for the target compound (gasoline) are within the laboratory control criteria for waters with the following discussions:

- SDG L1092400 - Analytical batch WG1272107. No LCSD was analyzed. Refer to field duplicate results for precision data.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:

The LCS/LCSD %Rs and RPDs for the target compound (dissolved gases) are within the laboratory control criteria for waters.

USEPA Method 6020A:

The LCS/LCSD %Rs and RPDs for the target compound (iron and manganese) are within the laboratory control criteria for waters.

General Chemistry (Alkalinity, Chloride, Sulfate, Nitrate, and TOC):

The LCS or LCS/LCSD %Rs and RPDs for general chemistry parameters are within the laboratory control criteria for waters.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:

Matrix spike/matrix spike duplicate (MS/MSD) analyses were not performed. Refer to LCS/LCSD and/or field duplicate data for accuracy and precision data.

USEPA Method TO-15:

Matrix spike/matrix spike duplicate (MS/MSD) analyses were not performed. Refer to LCS/LCSD and/or field duplicate data for accuracy and precision data.

NWTPH-Gx Method:

MS/MSD analyses were performed on client or non-client samples within the analytical batches. In cases where MS/MSD spike analyses are not performed refer to LCS/LCSD for accuracy and precision data. The MS/MSD %Rs and RPDs for all target compounds are within the laboratory control criteria for waters.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:

Matrix spike/matrix spike duplicate (MS/MSD) analyses were not performed. Refer to LCS/LCSD or laboratory duplicate data for accuracy and precision data.

USEPA Method 6020A:

MS/MSD analyses were performed on client and non-client samples within the analytical batches. The MS/MSD % Rs and RPD were acceptable and within laboratory control limit criteria for water samples with the following exceptions:

- SDG L1092400 - Analytical batch WG1271843: MS/MSDs were performed on non-client samples. The sample amount is greater than the spike amount and MS/MSD results are qualified (V) by the laboratory. No action was taken other than to note that the spike was performed on a non-client sample and LCS/LCSD results are within criteria.
- SDGs L1092440 and L1092880 - Analytical batch WG1271844: MS/MSDs were performed on client sample MW-158-042419 (SDG L1092880). The sample amount for iron is greater than the spike amount and MS/MSD results are qualified (V) by the laboratory. No action was taken other than to note that the spike was performed on a non-client sample and LCS/LCSD results are within criteria.
- SDGs L1094387 and L1094414 - Analytical batch WG1275858: MS/MSDs were performed on non-client sample. The sample amount for iron is greater than the spike amount and MS/MSD results are qualified (V) by the laboratory. No action was taken other than to note that the spike was performed on a non-client sample and LCS/LCSD results are within criteria.

General Chemistry (Alkalinity, Chloride, Sulfate, Nitrate, and TOC):

MS/MSD analyses were performed on client and/or non-client samples within the analytical batches. In cases where MS/MSD spike analyses are not performed refer to LCS/LCSD or laboratory duplicate data for accuracy and precision data. The MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples with the following exception:

- SDG L1092440 - Analytical batch WG1271815: The MS was performed on client sample MW-157-042419. MS results for sulfate are qualified (E) by the laboratory to indicate that the spiked analyte concentration exceeded the upper calibration range. No action was taken other than to note that the laboratory duplicate and LCS recovery results are

within criteria. Sample MW157-042419 sulfate concentration is within the calibration range.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report with the following discussion:

- SDG L1095349: A serial dilution was performed on field duplicate sample MW911-050319. Serial dilution criteria were not met (laboratory qualified O1) for iron. **Sample MW911-050319 and field duplicate sample MW120-050319 iron results are estimated and qualified (J) due to the high serial dilution result.** Refer to the Field Duplicate section for additional information on this field duplicate pair.
- SDG L1095349: A serial dilution was performed on field duplicate sample MW911-050319 (field duplicate sample MW120-050319). Serial dilution criteria were not met (laboratory qualified O1) for manganese at the 5X dilution. For sample MW911-050319 Pace reported two sets of results (10X and 5X) for manganese. **Sample MW911-050319 manganese result at the 5X dilution, while acceptable as estimated is rejected (R) because sample MW911-050319 manganese at the higher dilution (10X) has the higher concentration result and is reported as this result is the most conservative.** Field duplicate sample RPD results are less than 30% RPD.
- Electronic data deliverables (EDDs) for these SDGs were provided by the laboratory and data validator qualifiers were entered. In some cases, different chemical synonyms are used between the EDD and the hardcopy however associated Chemical Abstracts Service (CAS) numbers are provided in the EDD to confirm chemical identifications.

Compound Identification and Quantitation Limits

Several chlorinated VOC compounds (including cis-1,2-dichloroethene, trans-1,2-dichloroethene, trichloroethene, and tetrachloroethene) elute within the GRO retention time range. Elevated chlorinated VOC compounds likely contribute to the GRO result and associated GRO results are likely biased high (J+). Qualified samples are as follows:

Sample ID	Laboratory Identification	Result Parameter Name	Result Value ($\mu\text{g/L}$)	Qualified Result	Comments
MW104-042319	L1091936-03	Gasoline Range Organics	174	J+	Elevated chlorinated VOCs within the GRO elution range
MW147-042319	L1091936-05	Gasoline Range Organics	139	J+	Elevated chlorinated VOCs within the GRO elution range
W-MW-02-042319	L1091958-01	Gasoline Range Organics	429	J+	Elevated chlorinated VOCs within the GRO elution range
MW-908-042419	L1092440-03	Gasoline Range Organics	2600	J+	Elevated chlorinated VOCs within the GRO elution range
MW-156-042419	L1092440-05	Gasoline Range Organics	2570	J+	Elevated chlorinated VOCs within the GRO elution range
MW-157-042419	L1092440-06	Gasoline Range Organics	3210	J+	Elevated chlorinated VOCs within the GRO elution range

MW-9-042619	L1093242-08	Gasoline Range Organics	121	J+	Elevated chlorinated VOCs within the GRO elution range
MW107-050119	L1094387-09	Gasoline Range Organics	481	J+	Elevated chlorinated VOCs within the GRO elution range
MW120-050319	L1095349-01	Gasoline Range Organics	111	J+	Elevated chlorinated VOCs within the GRO elution range
MW911-050319	L1095349-02	Gasoline Range Organics	138	J+	Elevated chlorinated VOCs within the GRO elution range

Results of the analyses were reported based on laboratory RDLs for all compounds. RDLs for selected compounds are elevated due to method-required dilutions. No action is taken other than to note that Pace sample narrative notes indicate that VOC target compounds were too high to run at lower dilution for two samples as follows:

- MW-157-042419 (SDG L1092440); and
- FMW-129-050119 (SDG L1094387).

Data Assessment

The laboratory data reported for this project were reviewed based on the criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers are assigned and laboratory report pages with qualifiers are attached. All data, including qualified data, are judged to be acceptable for their intended use with the following exception:

- SDG L1095349: **Sample MW911-050319 manganese result at the 5X dilution, while acceptable as estimated is rejected (R) because sample MW911-050319 manganese at the higher dilution (10X) has the higher concentration result and is reported as the result is the most conservative.**

ANALYTICAL REPORT

May 02, 2019

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

PES Environmental, Inc.- WA

Sample Delivery Group: L1091511
Samples Received: 04/23/2019
Project Number: 1413.001.05.601
Description: American Linen
Site: AMERICAN LINEN
Report To: Brian O'Neal/Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

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 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-138-042219 L1091511-01 GW

Collected by
Shannon McKernan 04/22/19 10:30 Received date/time
04/23/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1273424	1	04/29/19 16:02	04/29/19 16:02	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1270336	1	04/23/19 18:05	04/23/19 18:05	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1270623	1	04/23/19 22:50	04/23/19 22:50	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271163	10	04/25/19 08:19	05/01/19 19:39	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1270830	1	04/24/19 01:20	04/24/19 01:20	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1271117	1	04/24/19 13:51	04/24/19 13:51	MEL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271083	1	04/24/19 12:34	04/24/19 12:34	JCP	Mt. Juliet, TN

GEI-1-042219 L1091511-02 GW

Collected by
Shannon McKernan 04/22/19 10:40 Received date/time
04/23/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271083	1	04/24/19 12:54	04/24/19 12:54	JCP	Mt. Juliet, TN

GEI-2-042219 L1091511-03 GW

Collected by
Shannon McKernan 04/22/19 11:50 Received date/time
04/23/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271083	1	04/24/19 13:14	04/24/19 13:14	JCP	Mt. Juliet, TN

FMW-131-042219 L1091511-04 GW

Collected by
Shannon McKernan 04/22/19 12:55 Received date/time
04/23/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271083	1	04/24/19 13:34	04/24/19 13:34	JCP	Mt. Juliet, TN

MW112-042219 L1091511-05 GW

Collected by
Shannon McKernan 04/22/19 13:00 Received date/time
04/23/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1273424	1	04/29/19 16:09	04/29/19 16:09	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1270336	1	04/23/19 18:20	04/23/19 18:20	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1270623	1	04/23/19 23:04	04/23/19 23:04	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271163	1	04/25/19 08:19	05/01/19 19:22	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271163	5	04/25/19 08:19	05/01/19 19:44	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1270830	1	04/24/19 01:44	04/24/19 01:44	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1271117	1	04/24/19 13:53	04/24/19 13:53	MEL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271083	1	04/24/19 13:54	04/24/19 13:54	JCP	Mt. Juliet, TN

TRIP BLANK-042219 L1091511-06 GW

Collected by
Shannon McKernan 04/22/19 00:00 Received date/time
04/23/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1270830	1	04/23/19 22:57	04/23/19 22:57	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271083	1	04/24/19 12:14	04/24/19 12:14	JCP	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



R-MW5-042219 L1091511-07 GW

Collected by
Shannon McKernan 04/22/19 11:30 Received date/time
04/23/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1270830	1	04/24/19 02:08	04/24/19 02:08	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271083	1	04/24/19 14:14	04/24/19 14:14	JCP	Mt. Juliet, TN

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



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 GI
- ⁸ AI
- ⁹ SC



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	139000		2710	20000	1	04/29/2019 16:02	WG1273424

Sample Narrative:

L1091511-01 WG1273424: Endpoint pH 4.5 headspace

¹ Cp

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	14200		51.9	1000	1	04/23/2019 18:05	WG1270336
Nitrate	U		22.7	100	1	04/23/2019 18:05	WG1270336
Sulfate	42700		77.4	5000	1	04/23/2019 18:05	WG1270336

² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	5700		102	1000	1	04/23/2019 22:50	WG1270623

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	13200		150	1000	10	05/01/2019 19:39	WG1271163
Manganese	509		2.50	50.0	10	05/01/2019 19:39	WG1271163

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/24/2019 01:20	WG1270830
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	110			78.0-120		04/24/2019 01:20	WG1270830

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	164		0.287	0.678	1	04/24/2019 13:51	WG1271117
Ethane	U		0.296	1.29	1	04/24/2019 13:51	WG1271117
Ethene	1.43		0.422	1.27	1	04/24/2019 13:51	WG1271117

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	2.56	J JO	1.05	25.0	1	04/24/2019 12:34	WG1271083
Acrylonitrile	U		0.873	5.00	1	04/24/2019 12:34	WG1271083
Benzene	U		0.0896	0.500	1	04/24/2019 12:34	WG1271083
Bromobenzene	U		0.133	0.500	1	04/24/2019 12:34	WG1271083
Bromodichloromethane	U		0.0800	0.500	1	04/24/2019 12:34	WG1271083
Bromochloromethane	U		0.145	0.500	1	04/24/2019 12:34	WG1271083
Bromoform	U		0.186	0.500	1	04/24/2019 12:34	WG1271083
Bromomethane	U	J O	0.157	2.50	1	04/24/2019 12:34	WG1271083
n-Butylbenzene	U		0.143	0.500	1	04/24/2019 12:34	WG1271083
sec-Butylbenzene	U		0.134	0.500	1	04/24/2019 12:34	WG1271083
tert-Butylbenzene	U		0.183	0.500	1	04/24/2019 12:34	WG1271083
Carbon disulfide	0.405	J	0.101	0.500	1	04/24/2019 12:34	WG1271083
Carbon tetrachloride	U		0.159	0.500	1	04/24/2019 12:34	WG1271083



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	04/24/2019 12:34	WG1271083	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/24/2019 12:34	WG1271083	² Tc
Chloroethane	U	<u>JO</u>	0.141	2.50	1	04/24/2019 12:34	WG1271083	³ Ss
Chloroform	U		0.0860	0.500	1	04/24/2019 12:34	WG1271083	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/24/2019 12:34	WG1271083	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/24/2019 12:34	WG1271083	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/24/2019 12:34	WG1271083	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/24/2019 12:34	WG1271083	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	04/24/2019 12:34	WG1271083	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/24/2019 12:34	WG1271083	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/24/2019 12:34	WG1271083	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/24/2019 12:34	WG1271083	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/24/2019 12:34	WG1271083	
Dichlorodifluoromethane	U		0.127	2.50	1	04/24/2019 12:34	WG1271083	
1,1-Dichloroethane	U		0.114	0.500	1	04/24/2019 12:34	WG1271083	
1,2-Dichloroethane	U		0.108	0.500	1	04/24/2019 12:34	WG1271083	
1,1-Dichloroethene	U		0.188	0.500	1	04/24/2019 12:34	WG1271083	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/24/2019 12:34	WG1271083	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/24/2019 12:34	WG1271083	
1,2-Dichloropropane	U		0.190	0.500	1	04/24/2019 12:34	WG1271083	
1,1-Dichloropropene	U		0.128	0.500	1	04/24/2019 12:34	WG1271083	
1,3-Dichloropropane	U		0.147	1.00	1	04/24/2019 12:34	WG1271083	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/24/2019 12:34	WG1271083	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/24/2019 12:34	WG1271083	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/24/2019 12:34	WG1271083	
2,2-Dichloropropane	U		0.0929	0.500	1	04/24/2019 12:34	WG1271083	
Di-isopropyl ether	U		0.0924	0.500	1	04/24/2019 12:34	WG1271083	
Ethylbenzene	U		0.158	0.500	1	04/24/2019 12:34	WG1271083	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/24/2019 12:34	WG1271083	
2-Hexanone	U		0.757	5.00	1	04/24/2019 12:34	WG1271083	
n-Hexane	U		0.305	5.00	1	04/24/2019 12:34	WG1271083	
Iodomethane	U		0.377	10.0	1	04/24/2019 12:34	WG1271083	
Isopropylbenzene	U		0.126	0.500	1	04/24/2019 12:34	WG1271083	
p-Isopropyltoluene	U		0.138	0.500	1	04/24/2019 12:34	WG1271083	
2-Butanone (MEK)	U		1.28	5.00	1	04/24/2019 12:34	WG1271083	
Methylene Chloride	U		1.07	2.50	1	04/24/2019 12:34	WG1271083	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/24/2019 12:34	WG1271083	
Methyl tert-butyl ether	U		0.102	0.500	1	04/24/2019 12:34	WG1271083	
Naphthalene	U		0.174	2.50	1	04/24/2019 12:34	WG1271083	
n-Propylbenzene	U		0.162	0.500	1	04/24/2019 12:34	WG1271083	
Styrene	U		0.117	0.500	1	04/24/2019 12:34	WG1271083	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/24/2019 12:34	WG1271083	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/24/2019 12:34	WG1271083	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 12:34	WG1271083	
Tetrachloroethene	U		0.199	0.500	1	04/24/2019 12:34	WG1271083	
Toluene	U		0.412	0.500	1	04/24/2019 12:34	WG1271083	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 12:34	WG1271083	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 12:34	WG1271083	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 12:34	WG1271083	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 12:34	WG1271083	
Trichloroethene	U		0.153	0.500	1	04/24/2019 12:34	WG1271083	
Trichlorofluoromethane	U	<u>JO</u>	0.130	2.50	1	04/24/2019 12:34	WG1271083	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 12:34	WG1271083	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 12:34	WG1271083	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 12:34	WG1271083	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 12:34	WG1271083	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
Vinyl acetate	U	<u>J0</u>	0.645	5.00	1	04/24/2019 12:34	<u>WG1271083</u>	¹ Cp
Vinyl chloride	U	<u>J0</u>	0.118	0.500	1	04/24/2019 12:34	<u>WG1271083</u>	² Tc
Xylenes, Total	U		0.316	1.50	1	04/24/2019 12:34	<u>WG1271083</u>	³ Ss
(S) Toluene-d8	101			80.0-120		04/24/2019 12:34	<u>WG1271083</u>	⁴ Cn
(S) 4-Bromofluorobenzene	106			77.0-126		04/24/2019 12:34	<u>WG1271083</u>	⁵ Sr
(S) 1,2-Dichloroethane-d4	91.9			70.0-130		04/24/2019 12:34	<u>WG1271083</u>	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	1.91	J JO	1.05	25.0	1	04/24/2019 12:54	WG1271083	¹ Cp
Acrylonitrile	U		0.873	5.00	1	04/24/2019 12:54	WG1271083	² Tc
Benzene	U		0.0896	0.500	1	04/24/2019 12:54	WG1271083	³ Ss
Bromobenzene	U		0.133	0.500	1	04/24/2019 12:54	WG1271083	⁴ Cn
Bromodichloromethane	U		0.0800	0.500	1	04/24/2019 12:54	WG1271083	⁵ Sr
Bromoform	U		0.145	0.500	1	04/24/2019 12:54	WG1271083	⁶ Qc
Bromomethane	U	J O	0.157	2.50	1	04/24/2019 12:54	WG1271083	⁷ Gl
n-Butylbenzene	U		0.143	0.500	1	04/24/2019 12:54	WG1271083	⁸ Al
sec-Butylbenzene	U		0.134	0.500	1	04/24/2019 12:54	WG1271083	⁹ Sc
tert-Butylbenzene	U		0.183	0.500	1	04/24/2019 12:54	WG1271083	
Carbon disulfide	U		0.101	0.500	1	04/24/2019 12:54	WG1271083	
Carbon tetrachloride	U		0.159	0.500	1	04/24/2019 12:54	WG1271083	
Chlorobenzene	U		0.140	0.500	1	04/24/2019 12:54	WG1271083	
Chlorodibromomethane	U		0.128	0.500	1	04/24/2019 12:54	WG1271083	
Chloroethane	U	J O	0.141	2.50	1	04/24/2019 12:54	WG1271083	
Chloroform	U		0.0860	0.500	1	04/24/2019 12:54	WG1271083	
Chloromethane	U		0.153	1.25	1	04/24/2019 12:54	WG1271083	
2-Chlorotoluene	U		0.111	0.500	1	04/24/2019 12:54	WG1271083	
4-Chlorotoluene	U		0.0972	0.500	1	04/24/2019 12:54	WG1271083	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/24/2019 12:54	WG1271083	
1,2-Dibromoethane	U		0.193	0.500	1	04/24/2019 12:54	WG1271083	
Dibromomethane	U		0.117	0.500	1	04/24/2019 12:54	WG1271083	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/24/2019 12:54	WG1271083	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/24/2019 12:54	WG1271083	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/24/2019 12:54	WG1271083	
Dichlorodifluoromethane	U		0.127	2.50	1	04/24/2019 12:54	WG1271083	
1,1-Dichloroethane	U		0.114	0.500	1	04/24/2019 12:54	WG1271083	
1,2-Dichloroethane	U		0.108	0.500	1	04/24/2019 12:54	WG1271083	
1,1-Dichloroethene	U		0.188	0.500	1	04/24/2019 12:54	WG1271083	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/24/2019 12:54	WG1271083	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/24/2019 12:54	WG1271083	
1,2-Dichloropropane	U		0.190	0.500	1	04/24/2019 12:54	WG1271083	
1,1-Dichloropropene	U		0.128	0.500	1	04/24/2019 12:54	WG1271083	
1,3-Dichloropropane	U		0.147	1.00	1	04/24/2019 12:54	WG1271083	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/24/2019 12:54	WG1271083	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/24/2019 12:54	WG1271083	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/24/2019 12:54	WG1271083	
2,2-Dichloropropane	U		0.0929	0.500	1	04/24/2019 12:54	WG1271083	
Di-isopropyl ether	U		0.0924	0.500	1	04/24/2019 12:54	WG1271083	
Ethylbenzene	U		0.158	0.500	1	04/24/2019 12:54	WG1271083	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/24/2019 12:54	WG1271083	
2-Hexanone	U		0.757	5.00	1	04/24/2019 12:54	WG1271083	
n-Hexane	U		0.305	5.00	1	04/24/2019 12:54	WG1271083	
Iodomethane	U		0.377	10.0	1	04/24/2019 12:54	WG1271083	
Isopropylbenzene	U		0.126	0.500	1	04/24/2019 12:54	WG1271083	
p-Isopropyltoluene	U		0.138	0.500	1	04/24/2019 12:54	WG1271083	
2-Butanone (MEK)	U		1.28	5.00	1	04/24/2019 12:54	WG1271083	
Methylene Chloride	U		1.07	2.50	1	04/24/2019 12:54	WG1271083	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/24/2019 12:54	WG1271083	
Methyl tert-butyl ether	U		0.102	0.500	1	04/24/2019 12:54	WG1271083	
Naphthalene	0.282	J	0.174	2.50	1	04/24/2019 12:54	WG1271083	
n-Propylbenzene	U		0.162	0.500	1	04/24/2019 12:54	WG1271083	
Styrene	U		0.117	0.500	1	04/24/2019 12:54	WG1271083	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/24/2019 12:54	WG1271083	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/24/2019 12:54	WG1271083	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 12:54	WG1271083	¹ Cp
Tetrachloroethene	U		0.199	0.500	1	04/24/2019 12:54	WG1271083	² Tc
Toluene	U		0.412	0.500	1	04/24/2019 12:54	WG1271083	³ Ss
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 12:54	WG1271083	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 12:54	WG1271083	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 12:54	WG1271083	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 12:54	WG1271083	
Trichloroethene	U		0.153	0.500	1	04/24/2019 12:54	WG1271083	
Trichlorofluoromethane	U	<u>J0</u>	0.130	2.50	1	04/24/2019 12:54	WG1271083	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 12:54	WG1271083	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 12:54	WG1271083	⁶ Qc
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 12:54	WG1271083	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 12:54	WG1271083	
Vinyl acetate	U	<u>J0</u>	0.645	5.00	1	04/24/2019 12:54	WG1271083	⁷ GI
Vinyl chloride	U	<u>J0</u>	0.118	0.500	1	04/24/2019 12:54	WG1271083	
Xylenes, Total	U		0.316	1.50	1	04/24/2019 12:54	WG1271083	⁸ AI
(S) Toluene-d8	97.2			80.0-120		04/24/2019 12:54	WG1271083	
(S) 4-Bromofluorobenzene	104			77.0-126		04/24/2019 12:54	WG1271083	
(S) 1,2-Dichloroethane-d4	93.4			70.0-130		04/24/2019 12:54	WG1271083	⁹ SC



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch	
Acetone	U		1.05	25.0	1	04/24/2019 13:14	WG1271083	¹ Cp
Acrylonitrile	U		0.873	5.00	1	04/24/2019 13:14	WG1271083	² Tc
Benzene	1.05		0.0896	0.500	1	04/24/2019 13:14	WG1271083	³ Ss
Bromobenzene	U		0.133	0.500	1	04/24/2019 13:14	WG1271083	⁴ Cn
Bromodichloromethane	U		0.0800	0.500	1	04/24/2019 13:14	WG1271083	⁵ Sr
Bromoform	U		0.145	0.500	1	04/24/2019 13:14	WG1271083	⁶ Qc
Bromomethane	U	J0	0.157	2.50	1	04/24/2019 13:14	WG1271083	⁷ Gl
n-Butylbenzene	U		0.143	0.500	1	04/24/2019 13:14	WG1271083	⁸ Al
sec-Butylbenzene	U		0.134	0.500	1	04/24/2019 13:14	WG1271083	⁹ Sc
tert-Butylbenzene	U		0.183	0.500	1	04/24/2019 13:14	WG1271083	
Carbon disulfide	U		0.101	0.500	1	04/24/2019 13:14	WG1271083	
Carbon tetrachloride	U		0.159	0.500	1	04/24/2019 13:14	WG1271083	
Chlorobenzene	U		0.140	0.500	1	04/24/2019 13:14	WG1271083	
Chlorodibromomethane	U		0.128	0.500	1	04/24/2019 13:14	WG1271083	
Chloroethane	U	J0	0.141	2.50	1	04/24/2019 13:14	WG1271083	
Chloroform	U		0.0860	0.500	1	04/24/2019 13:14	WG1271083	
Chloromethane	U		0.153	1.25	1	04/24/2019 13:14	WG1271083	
2-Chlorotoluene	U		0.111	0.500	1	04/24/2019 13:14	WG1271083	
4-Chlorotoluene	U		0.0972	0.500	1	04/24/2019 13:14	WG1271083	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/24/2019 13:14	WG1271083	
1,2-Dibromoethane	U		0.193	0.500	1	04/24/2019 13:14	WG1271083	
Dibromomethane	U		0.117	0.500	1	04/24/2019 13:14	WG1271083	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/24/2019 13:14	WG1271083	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/24/2019 13:14	WG1271083	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/24/2019 13:14	WG1271083	
Dichlorodifluoromethane	U		0.127	2.50	1	04/24/2019 13:14	WG1271083	
1,1-Dichloroethane	U		0.114	0.500	1	04/24/2019 13:14	WG1271083	
1,2-Dichloroethane	U		0.108	0.500	1	04/24/2019 13:14	WG1271083	
1,1-Dichloroethene	U		0.188	0.500	1	04/24/2019 13:14	WG1271083	
cis-1,2-Dichloroethene	11.5		0.0933	0.500	1	04/24/2019 13:14	WG1271083	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/24/2019 13:14	WG1271083	
1,2-Dichloropropane	U		0.190	0.500	1	04/24/2019 13:14	WG1271083	
1,1-Dichloropropene	U		0.128	0.500	1	04/24/2019 13:14	WG1271083	
1,3-Dichloropropane	U		0.147	1.00	1	04/24/2019 13:14	WG1271083	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/24/2019 13:14	WG1271083	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/24/2019 13:14	WG1271083	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/24/2019 13:14	WG1271083	
2,2-Dichloropropane	U		0.0929	0.500	1	04/24/2019 13:14	WG1271083	
Di-isopropyl ether	0.217	J	0.0924	0.500	1	04/24/2019 13:14	WG1271083	
Ethylbenzene	U		0.158	0.500	1	04/24/2019 13:14	WG1271083	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/24/2019 13:14	WG1271083	
2-Hexanone	U		0.757	5.00	1	04/24/2019 13:14	WG1271083	
n-Hexane	U		0.305	5.00	1	04/24/2019 13:14	WG1271083	
Iodomethane	U		0.377	10.0	1	04/24/2019 13:14	WG1271083	
Isopropylbenzene	U		0.126	0.500	1	04/24/2019 13:14	WG1271083	
p-Isopropyltoluene	U		0.138	0.500	1	04/24/2019 13:14	WG1271083	
2-Butanone (MEK)	U		1.28	5.00	1	04/24/2019 13:14	WG1271083	
Methylene Chloride	U		1.07	2.50	1	04/24/2019 13:14	WG1271083	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/24/2019 13:14	WG1271083	
Methyl tert-butyl ether	0.154	J	0.102	0.500	1	04/24/2019 13:14	WG1271083	
Naphthalene	U		0.174	2.50	1	04/24/2019 13:14	WG1271083	
n-Propylbenzene	U		0.162	0.500	1	04/24/2019 13:14	WG1271083	
Styrene	U		0.117	0.500	1	04/24/2019 13:14	WG1271083	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/24/2019 13:14	WG1271083	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/24/2019 13:14	WG1271083	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 13:14	WG1271083	¹ Cp
Tetrachloroethene	U		0.199	0.500	1	04/24/2019 13:14	WG1271083	² Tc
Toluene	U		0.412	0.500	1	04/24/2019 13:14	WG1271083	³ Ss
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 13:14	WG1271083	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 13:14	WG1271083	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 13:14	WG1271083	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 13:14	WG1271083	
Trichloroethene	U		0.153	0.500	1	04/24/2019 13:14	WG1271083	
Trichlorofluoromethane	U	<u>J0</u>	0.130	2.50	1	04/24/2019 13:14	WG1271083	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 13:14	WG1271083	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 13:14	WG1271083	⁶ Qc
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 13:14	WG1271083	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 13:14	WG1271083	
Vinyl acetate	U	<u>J0</u>	0.645	5.00	1	04/24/2019 13:14	WG1271083	⁷ GI
Vinyl chloride	57.7	<u>J0</u>	0.118	0.500	1	04/24/2019 13:14	WG1271083	
Xylenes, Total	U		0.316	1.50	1	04/24/2019 13:14	WG1271083	
(S) Toluene-d8	99.6			80.0-120		04/24/2019 13:14	WG1271083	
(S) 4-Bromofluorobenzene	105			77.0-126		04/24/2019 13:14	WG1271083	
(S) 1,2-Dichloroethane-d4	94.4			70.0-130		04/24/2019 13:14	WG1271083	⁸ AI
								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	1.80	J JO	1.05	25.0	1	04/24/2019 13:34	WG1271083	¹ Cp
Acrylonitrile	U		0.873	5.00	1	04/24/2019 13:34	WG1271083	² Tc
Benzene	U		0.0896	0.500	1	04/24/2019 13:34	WG1271083	³ Ss
Bromobenzene	U		0.133	0.500	1	04/24/2019 13:34	WG1271083	⁴ Cn
Bromodichloromethane	U		0.0800	0.500	1	04/24/2019 13:34	WG1271083	⁵ Sr
Bromoform	U		0.145	0.500	1	04/24/2019 13:34	WG1271083	⁶ Qc
Bromomethane	U	J O	0.157	2.50	1	04/24/2019 13:34	WG1271083	⁷ GI
n-Butylbenzene	U		0.143	0.500	1	04/24/2019 13:34	WG1271083	⁸ AI
sec-Butylbenzene	U		0.134	0.500	1	04/24/2019 13:34	WG1271083	⁹ Sc
tert-Butylbenzene	U		0.183	0.500	1	04/24/2019 13:34	WG1271083	
Carbon disulfide	U		0.101	0.500	1	04/24/2019 13:34	WG1271083	
Carbon tetrachloride	U		0.159	0.500	1	04/24/2019 13:34	WG1271083	
Chlorobenzene	U		0.140	0.500	1	04/24/2019 13:34	WG1271083	
Chlorodibromomethane	U		0.128	0.500	1	04/24/2019 13:34	WG1271083	
Chloroethane	U	J O	0.141	2.50	1	04/24/2019 13:34	WG1271083	
Chloroform	U		0.0860	0.500	1	04/24/2019 13:34	WG1271083	
Chloromethane	U		0.153	1.25	1	04/24/2019 13:34	WG1271083	
2-Chlorotoluene	U		0.111	0.500	1	04/24/2019 13:34	WG1271083	
4-Chlorotoluene	U		0.0972	0.500	1	04/24/2019 13:34	WG1271083	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/24/2019 13:34	WG1271083	
1,2-Dibromoethane	U		0.193	0.500	1	04/24/2019 13:34	WG1271083	
Dibromomethane	U		0.117	0.500	1	04/24/2019 13:34	WG1271083	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/24/2019 13:34	WG1271083	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/24/2019 13:34	WG1271083	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/24/2019 13:34	WG1271083	
Dichlorodifluoromethane	U		0.127	2.50	1	04/24/2019 13:34	WG1271083	
1,1-Dichloroethane	U		0.114	0.500	1	04/24/2019 13:34	WG1271083	
1,2-Dichloroethane	U		0.108	0.500	1	04/24/2019 13:34	WG1271083	
1,1-Dichloroethene	U		0.188	0.500	1	04/24/2019 13:34	WG1271083	
cis-1,2-Dichloroethene	10.8		0.0933	0.500	1	04/24/2019 13:34	WG1271083	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/24/2019 13:34	WG1271083	
1,2-Dichloropropane	U		0.190	0.500	1	04/24/2019 13:34	WG1271083	
1,1-Dichloropropene	U		0.128	0.500	1	04/24/2019 13:34	WG1271083	
1,3-Dichloropropane	U		0.147	1.00	1	04/24/2019 13:34	WG1271083	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/24/2019 13:34	WG1271083	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/24/2019 13:34	WG1271083	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/24/2019 13:34	WG1271083	
2,2-Dichloropropane	U		0.0929	0.500	1	04/24/2019 13:34	WG1271083	
Di-isopropyl ether	U		0.0924	0.500	1	04/24/2019 13:34	WG1271083	
Ethylbenzene	U		0.158	0.500	1	04/24/2019 13:34	WG1271083	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/24/2019 13:34	WG1271083	
2-Hexanone	U		0.757	5.00	1	04/24/2019 13:34	WG1271083	
n-Hexane	U		0.305	5.00	1	04/24/2019 13:34	WG1271083	
Iodomethane	U		0.377	10.0	1	04/24/2019 13:34	WG1271083	
Isopropylbenzene	U		0.126	0.500	1	04/24/2019 13:34	WG1271083	
p-Isopropyltoluene	U		0.138	0.500	1	04/24/2019 13:34	WG1271083	
2-Butanone (MEK)	U		1.28	5.00	1	04/24/2019 13:34	WG1271083	
Methylene Chloride	U		1.07	2.50	1	04/24/2019 13:34	WG1271083	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/24/2019 13:34	WG1271083	
Methyl tert-butyl ether	U		0.102	0.500	1	04/24/2019 13:34	WG1271083	
Naphthalene	U		0.174	2.50	1	04/24/2019 13:34	WG1271083	
n-Propylbenzene	U		0.162	0.500	1	04/24/2019 13:34	WG1271083	
Styrene	U		0.117	0.500	1	04/24/2019 13:34	WG1271083	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/24/2019 13:34	WG1271083	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/24/2019 13:34	WG1271083	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 13:34	WG1271083	¹ Cp
Tetrachloroethene	U		0.199	0.500	1	04/24/2019 13:34	WG1271083	² Tc
Toluene	U		0.412	0.500	1	04/24/2019 13:34	WG1271083	³ Ss
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 13:34	WG1271083	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 13:34	WG1271083	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 13:34	WG1271083	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 13:34	WG1271083	
Trichloroethene	U		0.153	0.500	1	04/24/2019 13:34	WG1271083	
Trichlorofluoromethane	U	<u>J0</u>	0.130	2.50	1	04/24/2019 13:34	WG1271083	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 13:34	WG1271083	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 13:34	WG1271083	⁶ Qc
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 13:34	WG1271083	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 13:34	WG1271083	
Vinyl acetate	U	<u>J0</u>	0.645	5.00	1	04/24/2019 13:34	WG1271083	⁷ GI
Vinyl chloride	0.195	<u>J J0</u>	0.118	0.500	1	04/24/2019 13:34	WG1271083	
Xylenes, Total	U		0.316	1.50	1	04/24/2019 13:34	WG1271083	
(S) Toluene-d8	99.2			80.0-120		04/24/2019 13:34	WG1271083	
(S) 4-Bromofluorobenzene	104			77.0-126		04/24/2019 13:34	WG1271083	
(S) 1,2-Dichloroethane-d4	92.9			70.0-130		04/24/2019 13:34	WG1271083	⁸ AI
								⁹ SC



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	82900		2710	20000	1	04/29/2019 16:09	WG1273424

Sample Narrative:

L1091511-05 WG1273424: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	7090		51.9	1000	1	04/23/2019 18:20	WG1270336
Nitrate	U		22.7	100	1	04/23/2019 18:20	WG1270336
Sulfate	7650		77.4	5000	1	04/23/2019 18:20	WG1270336

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	6040		102	1000	1	04/23/2019 23:04	WG1270623

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	4900		75.0	500	5	05/01/2019 19:44	WG1271163
Manganese	177		0.250	5.00	1	05/01/2019 19:22	WG1271163

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/24/2019 01:44	WG1270830
(S) a,a,a-Trifluorotoluene(FID)	110			78.0-120		04/24/2019 01:44	WG1270830

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	281		0.287	0.678	1	04/24/2019 13:53	WG1271117
Ethane	1.12	J	0.296	1.29	1	04/24/2019 13:53	WG1271117
Ethene	1.13	J	0.422	1.27	1	04/24/2019 13:53	WG1271117

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	2.37	J JO	1.05	25.0	1	04/24/2019 13:54	WG1271083
Acrylonitrile	U		0.873	5.00	1	04/24/2019 13:54	WG1271083
Benzene	U		0.0896	0.500	1	04/24/2019 13:54	WG1271083
Bromobenzene	U		0.133	0.500	1	04/24/2019 13:54	WG1271083
Bromodichloromethane	U		0.0800	0.500	1	04/24/2019 13:54	WG1271083
Bromochloromethane	U		0.145	0.500	1	04/24/2019 13:54	WG1271083
Bromoform	U		0.186	0.500	1	04/24/2019 13:54	WG1271083
Bromomethane	U	JO	0.157	2.50	1	04/24/2019 13:54	WG1271083
n-Butylbenzene	U		0.143	0.500	1	04/24/2019 13:54	WG1271083
sec-Butylbenzene	U		0.134	0.500	1	04/24/2019 13:54	WG1271083
tert-Butylbenzene	U		0.183	0.500	1	04/24/2019 13:54	WG1271083
Carbon disulfide	U		0.101	0.500	1	04/24/2019 13:54	WG1271083
Carbon tetrachloride	U		0.159	0.500	1	04/24/2019 13:54	WG1271083



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	04/24/2019 13:54	WG1271083
Chlorodibromomethane	U		0.128	0.500	1	04/24/2019 13:54	WG1271083
Chloroethane	U	<u>JO</u>	0.141	2.50	1	04/24/2019 13:54	WG1271083
Chloroform	U		0.0860	0.500	1	04/24/2019 13:54	WG1271083
Chloromethane	U		0.153	1.25	1	04/24/2019 13:54	WG1271083
2-Chlorotoluene	U		0.111	0.500	1	04/24/2019 13:54	WG1271083
4-Chlorotoluene	U		0.0972	0.500	1	04/24/2019 13:54	WG1271083
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/24/2019 13:54	WG1271083
1,2-Dibromoethane	U		0.193	0.500	1	04/24/2019 13:54	WG1271083
Dibromomethane	U		0.117	0.500	1	04/24/2019 13:54	WG1271083
1,2-Dichlorobenzene	U		0.101	0.500	1	04/24/2019 13:54	WG1271083
1,3-Dichlorobenzene	U		0.130	0.500	1	04/24/2019 13:54	WG1271083
1,4-Dichlorobenzene	U		0.121	0.500	1	04/24/2019 13:54	WG1271083
Dichlorodifluoromethane	U		0.127	2.50	1	04/24/2019 13:54	WG1271083
1,1-Dichloroethane	U		0.114	0.500	1	04/24/2019 13:54	WG1271083
1,2-Dichloroethane	U		0.108	0.500	1	04/24/2019 13:54	WG1271083
1,1-Dichloroethene	U		0.188	0.500	1	04/24/2019 13:54	WG1271083
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/24/2019 13:54	WG1271083
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/24/2019 13:54	WG1271083
1,2-Dichloropropane	U		0.190	0.500	1	04/24/2019 13:54	WG1271083
1,1-Dichloropropene	U		0.128	0.500	1	04/24/2019 13:54	WG1271083
1,3-Dichloropropane	U		0.147	1.00	1	04/24/2019 13:54	WG1271083
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/24/2019 13:54	WG1271083
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/24/2019 13:54	WG1271083
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/24/2019 13:54	WG1271083
2,2-Dichloropropane	U		0.0929	0.500	1	04/24/2019 13:54	WG1271083
Di-isopropyl ether	U		0.0924	0.500	1	04/24/2019 13:54	WG1271083
Ethylbenzene	U		0.158	0.500	1	04/24/2019 13:54	WG1271083
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/24/2019 13:54	WG1271083
2-Hexanone	U		0.757	5.00	1	04/24/2019 13:54	WG1271083
n-Hexane	U		0.305	5.00	1	04/24/2019 13:54	WG1271083
Iodomethane	U		0.377	10.0	1	04/24/2019 13:54	WG1271083
Isopropylbenzene	U		0.126	0.500	1	04/24/2019 13:54	WG1271083
p-Isopropyltoluene	U		0.138	0.500	1	04/24/2019 13:54	WG1271083
2-Butanone (MEK)	U		1.28	5.00	1	04/24/2019 13:54	WG1271083
Methylene Chloride	U		1.07	2.50	1	04/24/2019 13:54	WG1271083
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/24/2019 13:54	WG1271083
Methyl tert-butyl ether	U		0.102	0.500	1	04/24/2019 13:54	WG1271083
Naphthalene	U		0.174	2.50	1	04/24/2019 13:54	WG1271083
n-Propylbenzene	U		0.162	0.500	1	04/24/2019 13:54	WG1271083
Styrene	U		0.117	0.500	1	04/24/2019 13:54	WG1271083
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/24/2019 13:54	WG1271083
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/24/2019 13:54	WG1271083
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 13:54	WG1271083
Tetrachloroethene	U		0.199	0.500	1	04/24/2019 13:54	WG1271083
Toluene	U		0.412	0.500	1	04/24/2019 13:54	WG1271083
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 13:54	WG1271083
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 13:54	WG1271083
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 13:54	WG1271083
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 13:54	WG1271083
Trichloroethene	U		0.153	0.500	1	04/24/2019 13:54	WG1271083
Trichlorofluoromethane	U	<u>JO</u>	0.130	2.50	1	04/24/2019 13:54	WG1271083
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 13:54	WG1271083
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 13:54	WG1271083
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 13:54	WG1271083
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 13:54	WG1271083

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- 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	
Vinyl acetate	U	<u>J0</u>	0.645	5.00	1	04/24/2019 13:54	<u>WG1271083</u>	¹ Cp
Vinyl chloride	U	<u>J0</u>	0.118	0.500	1	04/24/2019 13:54	<u>WG1271083</u>	² Tc
Xylenes, Total	U		0.316	1.50	1	04/24/2019 13:54	<u>WG1271083</u>	³ Ss
(S) Toluene-d8	99.6			80.0-120		04/24/2019 13:54	<u>WG1271083</u>	⁴ Cn
(S) 4-Bromofluorobenzene	105			77.0-126		04/24/2019 13:54	<u>WG1271083</u>	⁵ Sr
(S) 1,2-Dichloroethane-d4	95.4			70.0-130		04/24/2019 13:54	<u>WG1271083</u>	⁶ Qc



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	04/23/2019 22:57	WG1270830
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	111			78.0-120		04/23/2019 22:57	WG1270830

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
Acetone	U		1.05	25.0	1	04/24/2019 12:14	WG1271083
Acrylonitrile	U		0.873	5.00	1	04/24/2019 12:14	WG1271083
Benzene	U		0.0896	0.500	1	04/24/2019 12:14	WG1271083
Bromobenzene	U		0.133	0.500	1	04/24/2019 12:14	WG1271083
Bromodichloromethane	U		0.0800	0.500	1	04/24/2019 12:14	WG1271083
Bromoform	U		0.145	0.500	1	04/24/2019 12:14	WG1271083
Bromomethane	U	J0	0.186	0.500	1	04/24/2019 12:14	WG1271083
n-Butylbenzene	U		0.143	0.500	1	04/24/2019 12:14	WG1271083
sec-Butylbenzene	U		0.134	0.500	1	04/24/2019 12:14	WG1271083
tert-Butylbenzene	U		0.183	0.500	1	04/24/2019 12:14	WG1271083
Carbon disulfide	U		0.101	0.500	1	04/24/2019 12:14	WG1271083
Carbon tetrachloride	U		0.159	0.500	1	04/24/2019 12:14	WG1271083
Chlorobenzene	U		0.140	0.500	1	04/24/2019 12:14	WG1271083
Chlorodibromomethane	U		0.128	0.500	1	04/24/2019 12:14	WG1271083
Chloroethane	U	J0	0.141	2.50	1	04/24/2019 12:14	WG1271083
Chloroform	U		0.0860	0.500	1	04/24/2019 12:14	WG1271083
Chloromethane	U		0.153	1.25	1	04/24/2019 12:14	WG1271083
2-Chlorotoluene	U		0.111	0.500	1	04/24/2019 12:14	WG1271083
4-Chlorotoluene	U		0.0972	0.500	1	04/24/2019 12:14	WG1271083
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/24/2019 12:14	WG1271083
1,2-Dibromoethane	U		0.193	0.500	1	04/24/2019 12:14	WG1271083
Dibromomethane	U		0.117	0.500	1	04/24/2019 12:14	WG1271083
1,2-Dichlorobenzene	U		0.101	0.500	1	04/24/2019 12:14	WG1271083
1,3-Dichlorobenzene	U		0.130	0.500	1	04/24/2019 12:14	WG1271083
1,4-Dichlorobenzene	U		0.121	0.500	1	04/24/2019 12:14	WG1271083
Dichlorodifluoromethane	U		0.127	2.50	1	04/24/2019 12:14	WG1271083
1,1-Dichloroethane	U		0.114	0.500	1	04/24/2019 12:14	WG1271083
1,2-Dichloroethane	U		0.108	0.500	1	04/24/2019 12:14	WG1271083
1,1-Dichloroethene	U		0.188	0.500	1	04/24/2019 12:14	WG1271083
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/24/2019 12:14	WG1271083
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/24/2019 12:14	WG1271083
1,2-Dichloropropane	U		0.190	0.500	1	04/24/2019 12:14	WG1271083
1,1-Dichloropropene	U		0.128	0.500	1	04/24/2019 12:14	WG1271083
1,3-Dichloropropane	U		0.147	1.00	1	04/24/2019 12:14	WG1271083
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/24/2019 12:14	WG1271083
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/24/2019 12:14	WG1271083
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/24/2019 12:14	WG1271083
2,2-Dichloropropane	U		0.0929	0.500	1	04/24/2019 12:14	WG1271083
Di-isopropyl ether	U		0.0924	0.500	1	04/24/2019 12:14	WG1271083
Ethylbenzene	U		0.158	0.500	1	04/24/2019 12:14	WG1271083
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/24/2019 12:14	WG1271083
2-Hexanone	U		0.757	5.00	1	04/24/2019 12:14	WG1271083
n-Hexane	U		0.305	5.00	1	04/24/2019 12:14	WG1271083
Iodomethane	U		0.377	10.0	1	04/24/2019 12:14	WG1271083
Isopropylbenzene	U		0.126	0.500	1	04/24/2019 12:14	WG1271083
p-Isopropyltoluene	U		0.138	0.500	1	04/24/2019 12:14	WG1271083
2-Butanone (MEK)	U		1.28	5.00	1	04/24/2019 12:14	WG1271083



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	04/24/2019 12:14	WG1271083	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/24/2019 12:14	WG1271083	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	04/24/2019 12:14	WG1271083	³ Ss
Naphthalene	U		0.174	2.50	1	04/24/2019 12:14	WG1271083	
n-Propylbenzene	U		0.162	0.500	1	04/24/2019 12:14	WG1271083	
Styrene	U		0.117	0.500	1	04/24/2019 12:14	WG1271083	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/24/2019 12:14	WG1271083	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/24/2019 12:14	WG1271083	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 12:14	WG1271083	
Tetrachloroethene	U		0.199	0.500	1	04/24/2019 12:14	WG1271083	
Toluene	U		0.412	0.500	1	04/24/2019 12:14	WG1271083	⁶ Qc
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 12:14	WG1271083	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 12:14	WG1271083	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 12:14	WG1271083	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 12:14	WG1271083	
Trichloroethene	U		0.153	0.500	1	04/24/2019 12:14	WG1271083	
Trichlorofluoromethane	U	^{JO}	0.130	2.50	1	04/24/2019 12:14	WG1271083	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 12:14	WG1271083	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 12:14	WG1271083	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 12:14	WG1271083	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 12:14	WG1271083	
Vinyl acetate	U	^{JO}	0.645	5.00	1	04/24/2019 12:14	WG1271083	
Vinyl chloride	U	^{JO}	0.118	0.500	1	04/24/2019 12:14	WG1271083	
Xylenes, Total	U		0.316	1.50	1	04/24/2019 12:14	WG1271083	
(S) Toluene-d8	99.5			80.0-120		04/24/2019 12:14	WG1271083	
(S) 4-Bromofluorobenzene	105			77.0-126		04/24/2019 12:14	WG1271083	
(S) 1,2-Dichloroethane-d4	93.6			70.0-130		04/24/2019 12:14	WG1271083	



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	04/24/2019 02:08	WG1270830
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	110			78.0-120		04/24/2019 02:08	WG1270830

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
Acetone	U		1.05	25.0	1	04/24/2019 14:14	WG1271083
Acrylonitrile	U		0.873	5.00	1	04/24/2019 14:14	WG1271083
Benzene	U		0.0896	0.500	1	04/24/2019 14:14	WG1271083
Bromobenzene	U		0.133	0.500	1	04/24/2019 14:14	WG1271083
Bromodichloromethane	U		0.0800	0.500	1	04/24/2019 14:14	WG1271083
Bromoform	U		0.145	0.500	1	04/24/2019 14:14	WG1271083
Bromomethane	U	J0	0.157	2.50	1	04/24/2019 14:14	WG1271083
n-Butylbenzene	U		0.143	0.500	1	04/24/2019 14:14	WG1271083
sec-Butylbenzene	U		0.134	0.500	1	04/24/2019 14:14	WG1271083
tert-Butylbenzene	U		0.183	0.500	1	04/24/2019 14:14	WG1271083
Carbon disulfide	U		0.101	0.500	1	04/24/2019 14:14	WG1271083
Carbon tetrachloride	U		0.159	0.500	1	04/24/2019 14:14	WG1271083
Chlorobenzene	U		0.140	0.500	1	04/24/2019 14:14	WG1271083
Chlorodibromomethane	U		0.128	0.500	1	04/24/2019 14:14	WG1271083
Chloroethane	U	J0	0.141	2.50	1	04/24/2019 14:14	WG1271083
Chloroform	1.28		0.0860	0.500	1	04/24/2019 14:14	WG1271083
Chloromethane	U		0.153	1.25	1	04/24/2019 14:14	WG1271083
2-Chlorotoluene	U		0.111	0.500	1	04/24/2019 14:14	WG1271083
4-Chlorotoluene	U		0.0972	0.500	1	04/24/2019 14:14	WG1271083
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/24/2019 14:14	WG1271083
1,2-Dibromoethane	U		0.193	0.500	1	04/24/2019 14:14	WG1271083
Dibromomethane	U		0.117	0.500	1	04/24/2019 14:14	WG1271083
1,2-Dichlorobenzene	U		0.101	0.500	1	04/24/2019 14:14	WG1271083
1,3-Dichlorobenzene	U		0.130	0.500	1	04/24/2019 14:14	WG1271083
1,4-Dichlorobenzene	U		0.121	0.500	1	04/24/2019 14:14	WG1271083
Dichlorodifluoromethane	U		0.127	2.50	1	04/24/2019 14:14	WG1271083
1,1-Dichloroethane	U		0.114	0.500	1	04/24/2019 14:14	WG1271083
1,2-Dichloroethane	U		0.108	0.500	1	04/24/2019 14:14	WG1271083
1,1-Dichloroethene	U		0.188	0.500	1	04/24/2019 14:14	WG1271083
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/24/2019 14:14	WG1271083
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/24/2019 14:14	WG1271083
1,2-Dichloropropane	U		0.190	0.500	1	04/24/2019 14:14	WG1271083
1,1-Dichloropropene	U		0.128	0.500	1	04/24/2019 14:14	WG1271083
1,3-Dichloropropane	U		0.147	1.00	1	04/24/2019 14:14	WG1271083
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/24/2019 14:14	WG1271083
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/24/2019 14:14	WG1271083
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/24/2019 14:14	WG1271083
2,2-Dichloropropane	U		0.0929	0.500	1	04/24/2019 14:14	WG1271083
Di-isopropyl ether	U		0.0924	0.500	1	04/24/2019 14:14	WG1271083
Ethylbenzene	U		0.158	0.500	1	04/24/2019 14:14	WG1271083
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/24/2019 14:14	WG1271083
2-Hexanone	U		0.757	5.00	1	04/24/2019 14:14	WG1271083
n-Hexane	U		0.305	5.00	1	04/24/2019 14:14	WG1271083
Iodomethane	U		0.377	10.0	1	04/24/2019 14:14	WG1271083
Isopropylbenzene	U		0.126	0.500	1	04/24/2019 14:14	WG1271083
p-Isopropyltoluene	U		0.138	0.500	1	04/24/2019 14:14	WG1271083
2-Butanone (MEK)	U		1.28	5.00	1	04/24/2019 14:14	WG1271083



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	04/24/2019 14:14	WG1271083	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/24/2019 14:14	WG1271083	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	04/24/2019 14:14	WG1271083	³ Ss
Naphthalene	U		0.174	2.50	1	04/24/2019 14:14	WG1271083	⁴ Cn
n-Propylbenzene	U		0.162	0.500	1	04/24/2019 14:14	WG1271083	⁵ Sr
Styrene	U		0.117	0.500	1	04/24/2019 14:14	WG1271083	⁶ Qc
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/24/2019 14:14	WG1271083	⁷ Gl
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/24/2019 14:14	WG1271083	⁸ Al
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 14:14	WG1271083	⁹ Sc
Tetrachloroethene	0.499	J	0.199	0.500	1	04/24/2019 14:14	WG1271083	
Toluene	0.428	J	0.412	0.500	1	04/24/2019 14:14	WG1271083	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 14:14	WG1271083	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 14:14	WG1271083	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 14:14	WG1271083	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 14:14	WG1271083	
Trichloroethene	0.155	J	0.153	0.500	1	04/24/2019 14:14	WG1271083	
Trichlorofluoromethane	U	JO	0.130	2.50	1	04/24/2019 14:14	WG1271083	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 14:14	WG1271083	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 14:14	WG1271083	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 14:14	WG1271083	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 14:14	WG1271083	
Vinyl acetate	U	JO	0.645	5.00	1	04/24/2019 14:14	WG1271083	
Vinyl chloride	U	JO	0.118	0.500	1	04/24/2019 14:14	WG1271083	
Xylenes, Total	U		0.316	1.50	1	04/24/2019 14:14	WG1271083	
(S) Toluene-d8	99.5			80.0-120		04/24/2019 14:14	WG1271083	
(S) 4-Bromofluorobenzene	104			77.0-126		04/24/2019 14:14	WG1271083	
(S) 1,2-Dichloroethane-d4	94.6			70.0-130		04/24/2019 14:14	WG1271083	



Method Blank (MB)

(MB) R3406609-1 04/29/19 15:19

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Alkalinity	3140	J	2710	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1091051-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1091051-02 04/29/19 15:25 • (DUP) R3406609-3 04/29/19 15:33

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Alkalinity	171000	172000	1	0.927		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

L1091709-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1091709-05 04/29/19 18:19 • (DUP) R3406609-6 04/29/19 18:26

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Alkalinity	1070000	1070000	1	0.269		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3406609-5 04/29/19 16:32

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Alkalinity	100000	102000	102	85.0-115	

Sample Narrative:

LCS: Endpoint pH 4.5

¹Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



Method Blank (MB)

(MB) R3404733-1 04/23/19 09:46

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1091072-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1091072-01 04/23/19 11:53 • (DUP) R3404733-3 04/23/19 12:07

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Chloride	3350	3360	1	0.307		15
Nitrate	ND	65.0	1	0.000		15
Sulfate	ND	347	1	0.000		15

⁹Sc

L1091484-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1091484-01 04/23/19 17:20 • (DUP) R3404733-6 04/23/19 17:35

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Chloride	65900	65800	1	0.137		15
Nitrate	ND	0.000	1	0.000		15
Sulfate	29900	29900	1	0.0678		15

Laboratory Control Sample (LCS)

(LCS) R3404733-2 04/23/19 10:01

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Chloride	40000	40300	101	80.0-120	
Nitrate	8000	8280	103	80.0-120	
Sulfate	40000	41100	103	80.0-120	



L1091511-01,05

L1091072-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1091072-01 04/23/19 11:53 • (MS) R3404733-4 04/23/19 12:22 • (MSD) R3404733-5 04/23/19 12:37

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Chloride	50000	3350	53400	53500	100	100	1	80.0-120			0.140	15
Nitrate	5000	ND	5070	5090	100	101	1	80.0-120			0.325	15
Sulfate	50000	ND	51000	51100	101	101	1	80.0-120			0.196	15

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1091484-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1091484-01 04/23/19 17:20 • (MS) R3404733-7 04/23/19 17:50

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>
Chloride	50000	65900	114000	95.1	1	80.0-120	E
Nitrate	5000	ND	4970	99.4	1	80.0-120	
Sulfate	50000	29900	79300	98.8	1	80.0-120	

L1087661-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1087661-01 04/23/19 19:16 • (MS) R3404733-8 04/23/19 19:30 • (MSD) R3404733-9 04/23/19 19:45

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Chloride	50000	40000	89700	89600	99.3	99.1	1	80.0-120			0.101	15
Nitrate	5000	U	4800	4800	96.0	95.9	1	80.0-120			0.100	15
Sulfate	50000	725000	733000	733000	15.7	16.1	1	80.0-120	E V	E V	0.0331	15

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



Method Blank (MB)

(MB) R3404780-1 04/23/19 18:14

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	258	J	102	1000

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1091249-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1091249-15 04/23/19 19:34 • (DUP) R3404780-3 04/23/19 19:50

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
TOC	ND	316	1	0.000		20

L1091616-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1091616-02 04/23/19 23:34 • (DUP) R3404780-6 04/23/19 23:47

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
TOC	814000	795000	20	2.37		20

Laboratory Control Sample (LCS)

(LCS) R3404780-2 04/23/19 18:46

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
TOC	75000	75300	100	85.0-115	

L1091465-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1091465-01 04/23/19 22:07 • (MS) R3404780-4 04/23/19 22:21 • (MSD) R3404780-5 04/23/19 22:35

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
TOC	50000	4090	51600	51600	95.0	95.0	1	80.0-120			0.0388	20

L1091616-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1091616-08 04/24/19 02:16 • (MS) R3404780-7 04/24/19 02:30 • (MSD) R3404780-8 04/24/19 02:44

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
TOC	50000	5250	54800	54300	99.1	98.1	1	80.0-120			0.954	20



Method Blank (MB)

(MB) R3406868-1 05/01/19 00:18

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Iron	U		15.0	100
Manganese	U		0.250	5.00

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3406868-2 05/01/19 00:23 • (LCSD) R3406868-3 05/01/19 00:27

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
Iron	500	498	488	99.6	97.6	80.0-120			2.06	20
Manganese	50.0	49.1	47.1	98.1	94.1	80.0-120			4.14	20

L1090824-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1090824-02 05/01/19 00:32 • (MS) R3406868-5 05/01/19 00:41 • (MSD) R3406868-6 05/01/19 00:46

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Iron	500	899	1380	1480	97.0	117	1	75.0-125			6.95	20
Manganese	50.0	164	207	211	86.9	94.4	1	75.0-125			1.80	20



L1091511-01,05,06,07

Method Blank (MB)

(MB) R3405465-2 04/23/19 22:33

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	111			78.0-120

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3405465-1 04/23/19 21:45

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Gasoline Range Organics-NWTPH	5500	6170	112	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)		103		78.0-120	

L1091183-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1091183-01 04/23/19 23:44 • (MS) R3405465-3 04/24/19 06:54 • (MSD) R3405465-4 04/24/19 07:18

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits
Gasoline Range Organics-NWTPH	5500	U	6400	5810	116	106	1	10.0-155			9.60	21
(S) a,a,a-Trifluorotoluene(FID)				103		102		78.0-120				



L1091511-01,05

Method Blank (MB)

(MB) R3404989-1 04/24/19 13:45

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1091477-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1091477-07 04/24/19 13:48 • (DUP) R3404989-2 04/24/19 15:25

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Methane	7640	7300	10	4.64		20
Ethane	U	0.000	10	0.000		20
Ethene	U	0.000	10	0.000		20

⁹Sc

L1091573-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1091573-05 04/24/19 13:57 • (DUP) R3404989-3 04/24/19 15:30

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Methane	15100	15000	10	0.0720		20
Ethane	U	0.000	10	0.000		20
Ethene	U	0.000	10	0.000		20

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

(LCS) R3404989-4 04/24/19 15:33 • (LCSD) R3404989-5 04/24/19 15:36

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
Methane	67.8	76.1	77.2	112	114	85.0-115			1.43	20
Ethane	129	119	121	92.2	93.6	85.0-115			1.54	20
Ethene	127	123	122	96.9	96.3	85.0-115			0.680	20

L1091511-01,02,03,04,05,06,07

Method Blank (MB)

(MB) R3405761-3 04/24/19 10:19

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l	
Acetone	U		1.05	25.0	¹ Cp
Acrylonitrile	U		0.873	5.00	² Tc
Benzene	U		0.0896	0.500	³ Ss
Bromobenzene	U		0.133	0.500	⁴ Cn
Bromodichloromethane	U		0.0800	0.500	⁵ Sr
Bromochloromethane	U		0.145	0.500	⁶ Qc
Bromoform	U		0.186	0.500	⁷ Gl
Bromomethane	U		0.157	2.50	⁸ Al
n-Butylbenzene	U		0.143	0.500	⁹ Sc
Carbon disulfide	U		0.101	0.500	
sec-Butylbenzene	U		0.134	0.500	
Carbon tetrachloride	U		0.159	0.500	
tert-Butylbenzene	U		0.183	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	

L1091511-01,02,03,04,05,06,07

Method Blank (MB)

(MB) R3405761-3 04/24/19 10:19

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	
Hexachloro-1,3-butadiene	0.275	J	0.157	1.00	¹ Cp
2-Hexanone	U		0.757	5.00	² Tc
n-Hexane	U		0.305	5.00	³ Ss
Iodomethane	U		0.377	10.0	⁴ Cn
Ethylbenzene	U		0.158	0.500	⁵ Sr
2-Butanone (MEK)	U		1.28	5.00	⁶ Qc
Methylene Chloride	U		1.07	2.50	⁷ Gl
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	⁸ Al
Isopropylbenzene	U		0.126	0.500	⁹ Sc
Styrene	U		0.117	0.500	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	
p-Isopropyltoluene	U		0.138	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	
1,2,3-Trichlorobenzene	U		0.164	0.500	
1,2,4-Trichlorobenzene	U		0.355	0.500	
Methyl tert-butyl ether	U		0.102	0.500	
1,1,1-Trichloroethane	U		0.0940	0.500	
1,1,2-Trichloroethane	U		0.186	0.500	
Naphthalene	U		0.174	2.50	
Trichloroethene	U		0.153	0.500	
Trichlorofluoromethane	U		0.130	2.50	
1,2,3-Trichloropropane	U		0.247	2.50	
n-Propylbenzene	U		0.162	0.500	
1,2,3-Trimethylbenzene	U		0.0739	0.500	
Vinyl acetate	U		0.645	5.00	
Vinyl chloride	U		0.118	0.500	
Toluene	U		0.412	0.500	
Xylenes, Total	U		0.316	1.50	
1,2,4-Trimethylbenzene	U		0.123	0.500	
1,3,5-Trimethylbenzene	U		0.124	0.500	
(S) Toluene-d8	102		80.0-120		
(S) 4-Bromofluorobenzene	107		77.0-126		
(S) 1,2-Dichloroethane-d4	91.2		70.0-130		

L1091511-01,02,03,04,05,06,07

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

(LCS) R3405761-1 04/24/19 09:19 • (LCSD) R3405761-2 04/24/19 09:39

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 %
Acetone	125	156	148	124	119	19.0-160			4.69	27
Acrylonitrile	125	150	158	120	126	55.0-149			4.93	20
Bromobenzene	25.0	23.2	23.5	92.9	94.2	73.0-121			1.38	20
Bromodichloromethane	25.0	22.3	22.2	89.3	89.0	75.0-120			0.350	20
Bromoform	25.0	23.7	23.6	94.9	94.5	76.0-122			0.414	20
Bromomethane	25.0	27.4	26.8	110	107	68.0-132			2.18	20
Carbon disulfide	25.0	17.9	17.6	71.5	70.3	10.0-160			1.67	25
Carbon tetrachloride	25.0	27.9	28.1	111	113	61.0-128			1.03	20
Chlorobenzene	25.0	23.9	23.7	95.8	94.7	80.0-121			1.19	20
Chlorodibromomethane	25.0	24.3	23.9	97.1	95.6	77.0-125			1.64	20
Chloroethane	25.0	16.6	16.5	66.5	66.1	47.0-150			0.641	20
Chloroform	25.0	21.9	21.9	87.7	87.7	73.0-120			0.0865	20
Chloromethane	25.0	25.8	26.7	103	107	41.0-142			3.31	20
2-Chlorotoluene	25.0	22.1	23.1	88.3	92.4	76.0-123			4.55	20
4-Chlorotoluene	25.0	22.5	23.3	90.2	93.0	75.0-122			3.15	20
1,2-Dibromo-3-Chloropropane	25.0	26.5	28.6	106	114	58.0-134			7.78	20
1,2-Dibromoethane	25.0	23.7	23.5	94.9	94.0	80.0-122			1.05	20
Dibromomethane	25.0	22.8	22.7	91.2	90.7	80.0-120			0.460	20
1,2-Dichlorobenzene	25.0	23.0	23.4	91.9	93.7	79.0-121			1.90	20
1,3-Dichlorobenzene	25.0	22.6	23.1	90.4	92.5	79.0-120			2.30	20
1,4-Dichlorobenzene	25.0	22.0	22.0	88.0	87.9	79.0-120			0.0272	20
Dichlorodifluoromethane	25.0	25.9	25.8	104	103	51.0-149			0.138	20
1,1-Dichloroethane	25.0	24.4	24.7	97.4	98.8	70.0-126			1.36	20
1,2-Dichloroethane	25.0	20.9	21.0	83.4	83.9	70.0-128			0.549	20
1,1-Dichloroethene	25.0	24.6	24.4	98.3	97.6	71.0-124			0.735	20
cis-1,2-Dichloroethene	25.0	24.0	23.7	95.9	94.7	73.0-120			1.21	20
Benzene	25.0	25.9	25.8	104	103	70.0-123			0.330	20
trans-1,2-Dichloroethene	25.0	24.2	24.7	96.8	98.9	73.0-120			2.14	20
1,2-Dichloropropane	25.0	26.3	26.3	105	105	77.0-125			0.163	20
1,1-Dichloropropene	25.0	24.3	24.2	97.0	96.7	74.0-126			0.352	20
1,3-Dichloropropane	25.0	25.1	25.0	101	99.9	80.0-120			0.653	20
cis-1,3-Dichloropropene	25.0	23.5	23.1	93.8	92.5	80.0-123			1.45	20
trans-1,3-Dichloropropene	25.0	22.6	22.5	90.5	89.9	78.0-124			0.668	20
trans-1,4-Dichloro-2-butene	25.0	20.8	21.7	83.3	86.9	33.0-144			4.23	20
2,2-Dichloropropane	25.0	25.9	25.9	104	104	58.0-130			0.0126	20
n-Butylbenzene	25.0	21.5	21.8	85.9	87.4	73.0-125			1.72	20
Di-isopropyl ether	25.0	27.9	28.3	111	113	58.0-138			1.53	20
sec-Butylbenzene	25.0	22.4	23.0	89.5	91.9	75.0-125			2.67	20
tert-Butylbenzene	25.0	23.1	24.1	92.3	96.5	76.0-124			4.41	20

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1091511-01,02,03,04,05,06,07

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

(LCS) R3405761-1 04/24/19 09:19 • (LCSD) R3405761-2 04/24/19 09:39

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 %
Hexachloro-1,3-butadiene	25.0	27.6	29.3	110	117	54.0-138			6.19	20
2-Hexanone	125	146	148	117	119	67.0-149			1.62	20
n-Hexane	25.0	26.0	24.9	104	99.4	57.0-133			4.59	20
Iodomethane	125	133	133	106	106	33.0-147			0.179	26
2-Butanone (MEK)	125	155	160	124	128	44.0-160			3.27	20
Methylene Chloride	25.0	24.5	25.0	98.1	100	67.0-120			2.09	20
4-Methyl-2-pentanone (MIBK)	125	143	145	115	116	68.0-142			1.19	20
Styrene	25.0	27.4	26.7	110	107	73.0-130			2.64	20
1,1,1,2-Tetrachloroethane	25.0	24.1	24.1	96.3	96.5	75.0-125			0.203	20
1,1,2,2-Tetrachloroethane	25.0	20.9	21.7	83.7	87.0	65.0-130			3.84	20
1,1,2-Trichlorotrifluoroethane	25.0	22.8	22.6	91.1	90.6	69.0-132			0.600	20
Tetrachloroethene	25.0	25.2	24.6	101	98.6	72.0-132			2.13	20
1,2,3-Trichlorobenzene	25.0	23.4	25.1	93.7	100	50.0-138			6.79	20
1,2,4-Trichlorobenzene	25.0	23.9	25.3	95.5	101	57.0-137			6.02	20
1,1,1-Trichloroethane	25.0	23.6	23.6	94.3	94.3	73.0-124			0.0116	20
1,1,2-Trichloroethane	25.0	23.1	22.9	92.6	91.4	80.0-120			1.26	20
Trichloroethene	25.0	26.1	25.9	104	104	78.0-124			0.572	20
Trichlorofluoromethane	25.0	16.0	15.8	64.0	63.3	59.0-147			1.09	20
1,2,3-Trichloropropane	25.0	20.6	21.9	82.6	87.4	73.0-130			5.66	20
1,2,3-Trimethylbenzene	25.0	21.6	22.1	86.6	88.6	77.0-120			2.31	20
Vinyl acetate	125	72.4	73.4	57.9	58.7	11.0-160			1.37	20
Vinyl chloride	25.0	18.3	18.2	73.2	72.7	67.0-131			0.636	20
Xylenes, Total	75.0	73.5	73.4	98.0	97.9	79.0-123			0.136	20
Ethylbenzene	25.0	24.2	24.2	96.8	96.9	79.0-123			0.119	20
Isopropylbenzene	25.0	25.4	25.3	102	101	76.0-127			0.180	20
p-Isopropyltoluene	25.0	22.5	23.2	90.1	92.7	76.0-125			2.85	20
Methyl tert-butyl ether	25.0	23.5	23.7	94.1	94.8	68.0-125			0.771	20
Naphthalene	25.0	23.2	24.8	92.7	99.1	54.0-135			6.76	20
n-Propylbenzene	25.0	22.1	22.4	88.4	89.7	77.0-124			1.48	20
Toluene	25.0	25.8	25.4	103	102	79.0-120			1.62	20
1,2,4-Trimethylbenzene	25.0	22.1	22.5	88.5	90.0	76.0-121			1.68	20
1,3,5-Trimethylbenzene	25.0	22.2	23.0	88.7	92.0	76.0-122			3.67	20
(S) Toluene-d8				101	100	80.0-120				
(S) 4-Bromofluorobenzene				107	106	77.0-126				
(S) 1,2-Dichloroethane-d4				92.9	91.6	70.0-130				



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.	¹ Cp
ND	Not detected at the Reporting Limit (or MDL where applicable).	² Tc
RDL	Reported Detection Limit.	³ Ss
Rec.	Recovery.	⁴ Cn
RPD	Relative Percent Difference.	⁵ Sr
SDG	Sample Delivery Group.	⁶ Qc
(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.	⁷ GI
U	Not detected at the Reporting Limit (or MDL where applicable).	⁸ AI
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	⁹ SC
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

E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
JO	JO: The identification of the analyte is acceptable, but the reported concentration is an estimate. The calibration met method criteria.
V	The sample concentration is too high to evaluate accurate spike recoveries.



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
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia ¹	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky ^{1,6}	90010
Kentucky ²	16
Louisiana	AI30792
Louisiana ¹	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LA000356
South Carolina	84004
South Dakota	n/a
Tennessee ^{1,4}	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

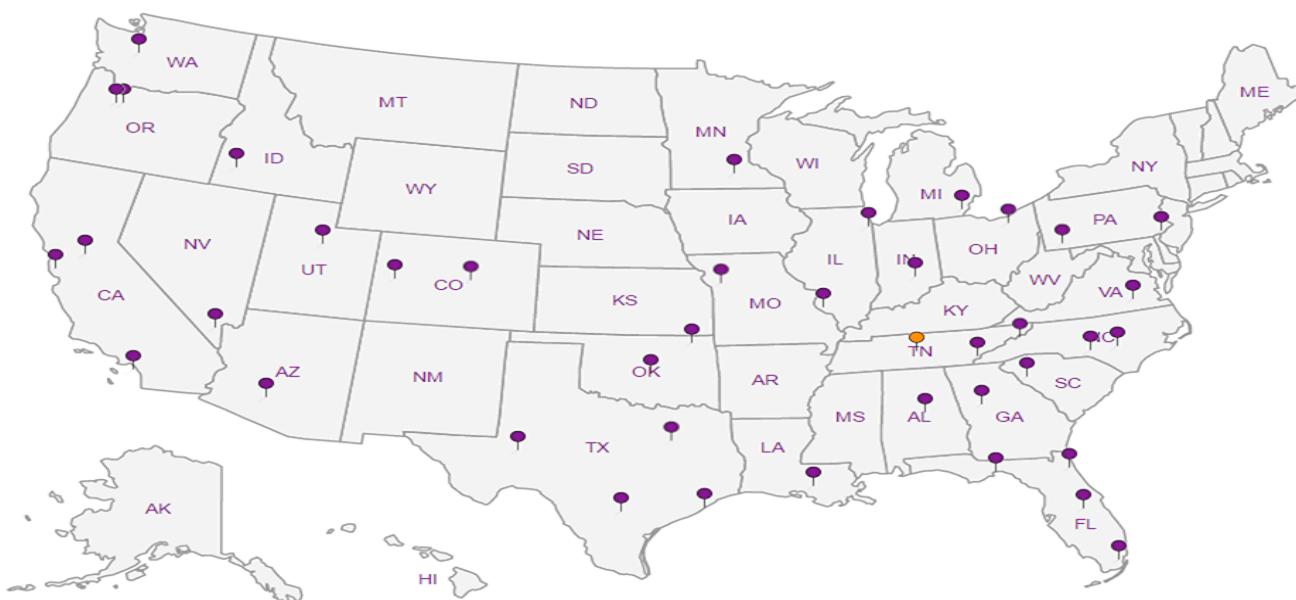
A2LA – ISO 17025	1461.01
A2LA – ISO 17025 ⁵	1461.02
Canada	1461.01
EPA-Crypto	TN00003

AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

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.



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

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Report to:
Brian O'Neal/Bill Haldeman

Project

Description: American Linen

Phone: 206-529-3980
Fax: 206-529-3985

Collected by (print):
SHANNON MCKERNAN

Collected by (signature):

Immediately
Packed on Ice N Y

Client Project #
1413.001.05.601

Lab Project #
PESENVSWA-ALP

Site/Facility ID #
AMERICAN LINEN

P.O. #

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

No. of
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	NWTPHGX 40mlAmb HCl	VOCS (V8260LLC) 40mlAmb-HCl	Alkalinity (2320 B-2011)	Cl ⁻ , SO ₄ ²⁻ , NO ₃ ⁻ (9056A)	TOC (9060A)	IRON/MANGANESE (6020A)	Methane/Ethane/Ether (RSK175)	Remarks	Sample # (lab only)	
MW-138-042219	GRAB	GW	110	4/22/19	1030	12	X	X	X	X	X	X			-01
GEI-1-042219		GW	31		1040	6	X								-02
R-MW5-042219		GW	24		1130	12	X								
GEI-2-042219		GW	55		1150	6	X								
FMW-131-042219		GW	68		1255	6	X								-03
MW112-042219	✓	GW	80	↓	1300	12	X	X	X	X	X	X			-04
TRIPBLANK-042219	-	GW	-	4/22/19	-	1	X	X	X	X	X	X			-05
R-MW5-042219	GRAB	GW	24	4/22/19	1130	6	X	X	X	X	X	X			-06
		GW													-07
		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 # **4757**

pH _____ Temp _____

Flow _____ Other _____

Sample Receipt Checklist
COC Seal Present/Intact: 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: 15 mR/hr

Relinquished by : (Signature)

Date: **4/22/19**

Time: **1530**

Received by: (Signature)

Trip Blank Received: Yes No

HCl / MeOH
TBR

Temp: **13.8F °C** Bottles Received:
4.4 + 1 = 4.5 **48**

If preservation required by Login: Date/Time

Relinquished by : (Signature)

Date: _____

Time: _____

Received by: (Signature)

Date: **4-23-19** Time: **8:45**

Hold:

Condition:
NCF / OK

Chain of Custody Page **1** of **1**

Pace Analytical®
National Center for Testing & Innovation

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



L# **L/09/15/11**
A047

Acctnum: PESENVSWA

Template: T146397

Prelogin: P694557

TSR: 110 - Brian Ford

PB: **2/15/19 mc**

Shipped Via: FedEX Ground



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity	139000		2710	20000	1	04/29/2019 16:02	WG1273424

Sample Narrative:

L1091511-01 WG1273424: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	14200		51.9	1000	1	04/23/2019 18:05	WG1270336
Nitrate	U		22.7	100	1	04/23/2019 18:05	WG1270336
Sulfate	42700		77.4	5000	1	04/23/2019 18:05	WG1270336

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	5700		102	1000	1	04/23/2019 22:50	WG1270623

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Iron	13200		150	1000	10	05/01/2019 19:39	WG1271163
Manganese	509		2.50	50.0	10	05/01/2019 19:39	WG1271163

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	04/24/2019 01:20	WG1270830
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	110			78.0-120		04/24/2019 01:20	WG1270830

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methane	164		0.287	0.678	1	04/24/2019 13:51	WG1271117
Ethane	U		0.296	1.29	1	04/24/2019 13:51	WG1271117
Ethene	1.43		0.422	1.27	1	04/24/2019 13:51	WG1271117

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	2.56	J	J JO	1.05	25.0	1	04/24/2019 12:34	WG1271083
Acrylonitrile	U			0.873	5.00	1	04/24/2019 12:34	WG1271083
Benzene	U			0.0896	0.500	1	04/24/2019 12:34	WG1271083
Bromobenzene	U			0.133	0.500	1	04/24/2019 12:34	WG1271083
Bromodichloromethane	U			0.0800	0.500	1	04/24/2019 12:34	WG1271083
Bromoform	U			0.145	0.500	1	04/24/2019 12:34	WG1271083
Bromomethane	U	UJ	JO	0.157	2.50	1	04/24/2019 12:34	WG1271083
n-Butylbenzene	U			0.143	0.500	1	04/24/2019 12:34	WG1271083
sec-Butylbenzene	U			0.134	0.500	1	04/24/2019 12:34	WG1271083
tert-Butylbenzene	U			0.183	0.500	1	04/24/2019 12:34	WG1271083
Carbon disulfide	0.405	J	J	0.101	0.500	1	04/24/2019 12:34	WG1271083
Carbon tetrachloride	U			0.159	0.500	1	04/24/2019 12:34	WG1271083

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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	
Chlorobenzene	U		0.140	0.500	1	04/24/2019 12:34	WG1271083	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/24/2019 12:34	WG1271083	² Tc
Chloroethane	U	UJ JO	0.141	2.50	1	04/24/2019 12:34	WG1271083	³ Ss
Chloroform	U		0.0860	0.500	1	04/24/2019 12:34	WG1271083	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/24/2019 12:34	WG1271083	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/24/2019 12:34	WG1271083	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/24/2019 12:34	WG1271083	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/24/2019 12:34	WG1271083	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	04/24/2019 12:34	WG1271083	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/24/2019 12:34	WG1271083	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/24/2019 12:34	WG1271083	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/24/2019 12:34	WG1271083	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/24/2019 12:34	WG1271083	
Dichlorodifluoromethane	U		0.127	2.50	1	04/24/2019 12:34	WG1271083	
1,1-Dichloroethane	U		0.114	0.500	1	04/24/2019 12:34	WG1271083	
1,2-Dichloroethane	U		0.108	0.500	1	04/24/2019 12:34	WG1271083	
1,1-Dichloroethene	U		0.188	0.500	1	04/24/2019 12:34	WG1271083	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/24/2019 12:34	WG1271083	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/24/2019 12:34	WG1271083	
1,2-Dichloropropane	U		0.190	0.500	1	04/24/2019 12:34	WG1271083	
1,1-Dichloropropene	U		0.128	0.500	1	04/24/2019 12:34	WG1271083	
1,3-Dichloropropane	U		0.147	1.00	1	04/24/2019 12:34	WG1271083	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/24/2019 12:34	WG1271083	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/24/2019 12:34	WG1271083	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/24/2019 12:34	WG1271083	
2,2-Dichloropropane	U		0.0929	0.500	1	04/24/2019 12:34	WG1271083	
Di-isopropyl ether	U		0.0924	0.500	1	04/24/2019 12:34	WG1271083	
Ethylbenzene	U		0.158	0.500	1	04/24/2019 12:34	WG1271083	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/24/2019 12:34	WG1271083	
2-Hexanone	U		0.757	5.00	1	04/24/2019 12:34	WG1271083	
n-Hexane	U		0.305	5.00	1	04/24/2019 12:34	WG1271083	
Iodomethane	U		0.377	10.0	1	04/24/2019 12:34	WG1271083	
Isopropylbenzene	U		0.126	0.500	1	04/24/2019 12:34	WG1271083	
p-Isopropyltoluene	U		0.138	0.500	1	04/24/2019 12:34	WG1271083	
2-Butanone (MEK)	U		1.28	5.00	1	04/24/2019 12:34	WG1271083	
Methylene Chloride	U		1.07	2.50	1	04/24/2019 12:34	WG1271083	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/24/2019 12:34	WG1271083	
Methyl tert-butyl ether	U		0.102	0.500	1	04/24/2019 12:34	WG1271083	
Naphthalene	U		0.174	2.50	1	04/24/2019 12:34	WG1271083	
n-Propylbenzene	U		0.162	0.500	1	04/24/2019 12:34	WG1271083	
Styrene	U		0.117	0.500	1	04/24/2019 12:34	WG1271083	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/24/2019 12:34	WG1271083	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/24/2019 12:34	WG1271083	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 12:34	WG1271083	
Tetrachloroethene	U		0.199	0.500	1	04/24/2019 12:34	WG1271083	
Toluene	U		0.412	0.500	1	04/24/2019 12:34	WG1271083	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 12:34	WG1271083	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 12:34	WG1271083	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 12:34	WG1271083	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 12:34	WG1271083	
Trichloroethene	U		0.153	0.500	1	04/24/2019 12:34	WG1271083	
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	04/24/2019 12:34	WG1271083	JC 5/7/19
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 12:34	WG1271083	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 12:34	WG1271083	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 12:34	WG1271083	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 12:34	WG1271083	



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

Analyte	Result ug/l	Qualifier <u>UJ</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
Vinyl acetate	U	<u>UJ</u>	0.645	5.00	1	04/24/2019 12:34	WG1271083	¹ Cp
Vinyl chloride	U	<u>UJ</u>	0.118	0.500	1	04/24/2019 12:34	WG1271083	² Tc
Xylenes, Total	U		0.316	1.50	1	04/24/2019 12:34	WG1271083	³ Ss
(S) Toluene-d8	101			80.0-120		04/24/2019 12:34	WG1271083	⁴ Cn
(S) 4-Bromofluorobenzene	106			77.0-126		04/24/2019 12:34	WG1271083	⁵ Sr
(S) 1,2-Dichloroethane-d4	91.9			70.0-130		04/24/2019 12:34	WG1271083	⁶ Qc
								⁷ Gl
								⁸ Al
								⁹ Sc

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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	
Acetone	1.91	J	J JO	1.05	25.0	1	04/24/2019 12:54	WG1271083
Acrylonitrile	U			0.873	5.00	1	04/24/2019 12:54	WG1271083
Benzene	U			0.0896	0.500	1	04/24/2019 12:54	WG1271083
Bromobenzene	U			0.133	0.500	1	04/24/2019 12:54	WG1271083
Bromodichloromethane	U			0.0800	0.500	1	04/24/2019 12:54	WG1271083
Bromoform	U			0.145	0.500	1	04/24/2019 12:54	WG1271083
Bromomethane	U	UJ	J0	0.157	2.50	1	04/24/2019 12:54	WG1271083
n-Butylbenzene	U			0.143	0.500	1	04/24/2019 12:54	WG1271083
sec-Butylbenzene	U			0.134	0.500	1	04/24/2019 12:54	WG1271083
tert-Butylbenzene	U			0.183	0.500	1	04/24/2019 12:54	WG1271083
Carbon disulfide	U			0.101	0.500	1	04/24/2019 12:54	WG1271083
Carbon tetrachloride	U			0.159	0.500	1	04/24/2019 12:54	WG1271083
Chlorobenzene	U			0.140	0.500	1	04/24/2019 12:54	WG1271083
Chlorodibromomethane	U			0.128	0.500	1	04/24/2019 12:54	WG1271083
Chloroethane	U	UJ	J0	0.141	2.50	1	04/24/2019 12:54	WG1271083
Chloroform	U			0.0860	0.500	1	04/24/2019 12:54	WG1271083
Chloromethane	U			0.153	1.25	1	04/24/2019 12:54	WG1271083
2-Chlorotoluene	U			0.111	0.500	1	04/24/2019 12:54	WG1271083
4-Chlorotoluene	U			0.0972	0.500	1	04/24/2019 12:54	WG1271083
1,2-Dibromo-3-Chloropropane	U			0.325	2.50	1	04/24/2019 12:54	WG1271083
1,2-Dibromoethane	U			0.193	0.500	1	04/24/2019 12:54	WG1271083
Dibromomethane	U			0.117	0.500	1	04/24/2019 12:54	WG1271083
1,2-Dichlorobenzene	U			0.101	0.500	1	04/24/2019 12:54	WG1271083
1,3-Dichlorobenzene	U			0.130	0.500	1	04/24/2019 12:54	WG1271083
1,4-Dichlorobenzene	U			0.121	0.500	1	04/24/2019 12:54	WG1271083
Dichlorodifluoromethane	U			0.127	2.50	1	04/24/2019 12:54	WG1271083
1,1-Dichloroethane	U			0.114	0.500	1	04/24/2019 12:54	WG1271083
1,2-Dichloroethane	U			0.108	0.500	1	04/24/2019 12:54	WG1271083
1,1-Dichloroethene	U			0.188	0.500	1	04/24/2019 12:54	WG1271083
cis-1,2-Dichloroethene	U			0.0933	0.500	1	04/24/2019 12:54	WG1271083
trans-1,2-Dichloroethene	U			0.152	0.500	1	04/24/2019 12:54	WG1271083
1,2-Dichloropropane	U			0.190	0.500	1	04/24/2019 12:54	WG1271083
1,1-Dichloropropene	U			0.128	0.500	1	04/24/2019 12:54	WG1271083
1,3-Dichloropropane	U			0.147	1.00	1	04/24/2019 12:54	WG1271083
cis-1,3-Dichloropropene	U			0.0976	0.500	1	04/24/2019 12:54	WG1271083
trans-1,3-Dichloropropene	U			0.222	0.500	1	04/24/2019 12:54	WG1271083
trans-1,4-Dichloro-2-butene	U			0.257	5.00	1	04/24/2019 12:54	WG1271083
2,2-Dichloropropane	U			0.0929	0.500	1	04/24/2019 12:54	WG1271083
Di-isopropyl ether	U			0.0924	0.500	1	04/24/2019 12:54	WG1271083
Ethylbenzene	U			0.158	0.500	1	04/24/2019 12:54	WG1271083
Hexachloro-1,3-butadiene	U			0.157	1.00	1	04/24/2019 12:54	WG1271083
2-Hexanone	U			0.757	5.00	1	04/24/2019 12:54	WG1271083
n-Hexane	U			0.305	5.00	1	04/24/2019 12:54	WG1271083
Iodomethane	U			0.377	10.0	1	04/24/2019 12:54	WG1271083
Isopropylbenzene	U			0.126	0.500	1	04/24/2019 12:54	WG1271083
p-Isopropyltoluene	U			0.138	0.500	1	04/24/2019 12:54	WG1271083
2-Butanone (MEK)	U			1.28	5.00	1	04/24/2019 12:54	WG1271083
Methylene Chloride	U			1.07	2.50	1	04/24/2019 12:54	WG1271083
4-Methyl-2-pentanone (MIBK)	U			0.823	5.00	1	04/24/2019 12:54	WG1271083
Methyl tert-butyl ether	U			0.102	0.500	1	04/24/2019 12:54	WG1271083
Naphthalene	0.282	J	J	0.174	2.50	1	04/24/2019 12:54	WG1271083
n-Propylbenzene	U			0.162	0.500	1	04/24/2019 12:54	WG1271083
Styrene	U			0.117	0.500	1	04/24/2019 12:54	WG1271083
1,1,2-Tetrachloroethane	U			0.120	0.500	1	04/24/2019 12:54	WG1271083
1,1,2,2-Tetrachloroethane	U			0.130	0.500	1	04/24/2019 12:54	WG1271083

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 5/7/19



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch		
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 12:54	WG1271083	¹ Cp	
Tetrachloroethene	U		0.199	0.500	1	04/24/2019 12:54	WG1271083	² Tc	
Toluene	U		0.412	0.500	1	04/24/2019 12:54	WG1271083	³ Ss	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 12:54	WG1271083		
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 12:54	WG1271083		
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 12:54	WG1271083		
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 12:54	WG1271083		
Trichloroethene	U		0.153	0.500	1	04/24/2019 12:54	WG1271083		
Trichlorofluoromethane	U	UJ	JO	0.130	2.50	1	04/24/2019 12:54	WG1271083	⁵ Sr
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 12:54	WG1271083		
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 12:54	WG1271083	⁶ Qc	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 12:54	WG1271083		
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 12:54	WG1271083		
Vinyl acetate	U	UJ	JO	0.645	5.00	1	04/24/2019 12:54	WG1271083	⁷ Gl
Vinyl chloride	U	UJ	JO	0.118	0.500	1	04/24/2019 12:54	WG1271083	
Xylenes, Total	U		0.316	1.50	1	04/24/2019 12:54	WG1271083	⁸ Al	
(S) Toluene-d8	97.2			80.0-120		04/24/2019 12:54	WG1271083		
(S) 4-Bromofluorobenzene	104			77.0-126		04/24/2019 12:54	WG1271083		
(S) 1,2-Dichloroethane-d4	93.4			70.0-130		04/24/2019 12:54	WG1271083	⁹ Sc	

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch	
Acetone	U		1.05	25.0	1	04/24/2019 13:14	WG1271083	¹ Cp
Acrylonitrile	U		0.873	5.00	1	04/24/2019 13:14	WG1271083	² Tc
Benzene	1.05		0.0896	0.500	1	04/24/2019 13:14	WG1271083	³ Ss
Bromobenzene	U		0.133	0.500	1	04/24/2019 13:14	WG1271083	⁴ Cn
Bromodichloromethane	U		0.0800	0.500	1	04/24/2019 13:14	WG1271083	⁵ Sr
Bromoform	U		0.145	0.500	1	04/24/2019 13:14	WG1271083	⁶ Qc
Bromomethane	U	UJ JO	0.157	2.50	1	04/24/2019 13:14	WG1271083	⁷ Gl
n-Butylbenzene	U		0.143	0.500	1	04/24/2019 13:14	WG1271083	⁸ Al
sec-Butylbenzene	U		0.134	0.500	1	04/24/2019 13:14	WG1271083	⁹ Sc
tert-Butylbenzene	U		0.183	0.500	1	04/24/2019 13:14	WG1271083	
Carbon disulfide	U		0.101	0.500	1	04/24/2019 13:14	WG1271083	
Carbon tetrachloride	U		0.159	0.500	1	04/24/2019 13:14	WG1271083	
Chlorobenzene	U		0.140	0.500	1	04/24/2019 13:14	WG1271083	
Chlorodibromomethane	U		0.128	0.500	1	04/24/2019 13:14	WG1271083	
Chloroethane	U	UJ JO	0.141	2.50	1	04/24/2019 13:14	WG1271083	
Chloroform	U		0.0860	0.500	1	04/24/2019 13:14	WG1271083	
Chloromethane	U		0.153	1.25	1	04/24/2019 13:14	WG1271083	
2-Chlorotoluene	U		0.111	0.500	1	04/24/2019 13:14	WG1271083	
4-Chlorotoluene	U		0.0972	0.500	1	04/24/2019 13:14	WG1271083	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/24/2019 13:14	WG1271083	
1,2-Dibromoethane	U		0.193	0.500	1	04/24/2019 13:14	WG1271083	
Dibromomethane	U		0.117	0.500	1	04/24/2019 13:14	WG1271083	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/24/2019 13:14	WG1271083	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/24/2019 13:14	WG1271083	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/24/2019 13:14	WG1271083	
Dichlorodifluoromethane	U		0.127	2.50	1	04/24/2019 13:14	WG1271083	
1,1-Dichloroethane	U		0.114	0.500	1	04/24/2019 13:14	WG1271083	
1,2-Dichloroethane	U		0.108	0.500	1	04/24/2019 13:14	WG1271083	
1,1-Dichloroethene	U		0.188	0.500	1	04/24/2019 13:14	WG1271083	
cis-1,2-Dichloroethene	11.5		0.0933	0.500	1	04/24/2019 13:14	WG1271083	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/24/2019 13:14	WG1271083	
1,2-Dichloropropane	U		0.190	0.500	1	04/24/2019 13:14	WG1271083	
1,1-Dichloropropene	U		0.128	0.500	1	04/24/2019 13:14	WG1271083	
1,3-Dichloropropane	U		0.147	1.00	1	04/24/2019 13:14	WG1271083	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/24/2019 13:14	WG1271083	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/24/2019 13:14	WG1271083	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/24/2019 13:14	WG1271083	
2,2-Dichloropropane	U		0.0929	0.500	1	04/24/2019 13:14	WG1271083	
Di-isopropyl ether	0.217	J J	0.0924	0.500	1	04/24/2019 13:14	WG1271083	
Ethylbenzene	U		0.158	0.500	1	04/24/2019 13:14	WG1271083	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/24/2019 13:14	WG1271083	
2-Hexanone	U		0.757	5.00	1	04/24/2019 13:14	WG1271083	
n-Hexane	U		0.305	5.00	1	04/24/2019 13:14	WG1271083	
Iodomethane	U		0.377	10.0	1	04/24/2019 13:14	WG1271083	
Isopropylbenzene	U		0.126	0.500	1	04/24/2019 13:14	WG1271083	
p-Isopropyltoluene	U		0.138	0.500	1	04/24/2019 13:14	WG1271083	
2-Butanone (MEK)	U		1.28	5.00	1	04/24/2019 13:14	WG1271083	
Methylene Chloride	U		1.07	2.50	1	04/24/2019 13:14	WG1271083	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/24/2019 13:14	WG1271083	
Methyl tert-butyl ether	0.154	J J	0.102	0.500	1	04/24/2019 13:14	WG1271083	
Naphthalene	U		0.174	2.50	1	04/24/2019 13:14	WG1271083	
n-Propylbenzene	U		0.162	0.500	1	04/24/2019 13:14	WG1271083	
Styrene	U		0.117	0.500	1	04/24/2019 13:14	WG1271083	JC 5/7/19
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/24/2019 13:14	WG1271083	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/24/2019 13:14	WG1271083	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch		
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 13:14	WG1271083	¹ Cp	
Tetrachloroethene	U		0.199	0.500	1	04/24/2019 13:14	WG1271083	² Tc	
Toluene	U		0.412	0.500	1	04/24/2019 13:14	WG1271083	³ Ss	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 13:14	WG1271083		
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 13:14	WG1271083		
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 13:14	WG1271083		
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 13:14	WG1271083		
Trichloroethene	U		0.153	0.500	1	04/24/2019 13:14	WG1271083		
Trichlorofluoromethane	U	UJ	JO	0.130	2.50	1	04/24/2019 13:14	WG1271083	⁵ Sr
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 13:14	WG1271083		
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 13:14	WG1271083	⁶ Qc	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 13:14	WG1271083		
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 13:14	WG1271083		
Vinyl acetate	U	UJ	JO	0.645	5.00	1	04/24/2019 13:14	WG1271083	⁷ Gl
Vinyl chloride	57.7	J	JO	0.118	0.500	1	04/24/2019 13:14	WG1271083	
Xylenes, Total	U		0.316	1.50	1	04/24/2019 13:14	WG1271083	⁸ Al	
(S) Toluene-d8	99.6			80.0-120		04/24/2019 13:14	WG1271083		
(S) 4-Bromofluorobenzene	105			77.0-126		04/24/2019 13:14	WG1271083		
(S) 1,2-Dichloroethane-d4	94.4			70.0-130		04/24/2019 13:14	WG1271083	⁹ Sc	

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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	
Acetone	1.80	J	J JO	1.05	25.0	1	04/24/2019 13:34	WG1271083
Acrylonitrile	U			0.873	5.00	1	04/24/2019 13:34	WG1271083
Benzene	U			0.0896	0.500	1	04/24/2019 13:34	WG1271083
Bromobenzene	U			0.133	0.500	1	04/24/2019 13:34	WG1271083
Bromodichloromethane	U			0.0800	0.500	1	04/24/2019 13:34	WG1271083
Bromoform	U			0.145	0.500	1	04/24/2019 13:34	WG1271083
Bromomethane	U	UJ	JO	0.157	2.50	1	04/24/2019 13:34	WG1271083
n-Butylbenzene	U			0.143	0.500	1	04/24/2019 13:34	WG1271083
sec-Butylbenzene	U			0.134	0.500	1	04/24/2019 13:34	WG1271083
tert-Butylbenzene	U			0.183	0.500	1	04/24/2019 13:34	WG1271083
Carbon disulfide	U			0.101	0.500	1	04/24/2019 13:34	WG1271083
Carbon tetrachloride	U			0.159	0.500	1	04/24/2019 13:34	WG1271083
Chlorobenzene	U			0.140	0.500	1	04/24/2019 13:34	WG1271083
Chlorodibromomethane	U			0.128	0.500	1	04/24/2019 13:34	WG1271083
Chloroethane	U	UJ	JO	0.141	2.50	1	04/24/2019 13:34	WG1271083
Chloroform	U			0.0860	0.500	1	04/24/2019 13:34	WG1271083
Chloromethane	U			0.153	1.25	1	04/24/2019 13:34	WG1271083
2-Chlorotoluene	U			0.111	0.500	1	04/24/2019 13:34	WG1271083
4-Chlorotoluene	U			0.0972	0.500	1	04/24/2019 13:34	WG1271083
1,2-Dibromo-3-Chloropropane	U			0.325	2.50	1	04/24/2019 13:34	WG1271083
1,2-Dibromoethane	U			0.193	0.500	1	04/24/2019 13:34	WG1271083
Dibromomethane	U			0.117	0.500	1	04/24/2019 13:34	WG1271083
1,2-Dichlorobenzene	U			0.101	0.500	1	04/24/2019 13:34	WG1271083
1,3-Dichlorobenzene	U			0.130	0.500	1	04/24/2019 13:34	WG1271083
1,4-Dichlorobenzene	U			0.121	0.500	1	04/24/2019 13:34	WG1271083
Dichlorodifluoromethane	U			0.127	2.50	1	04/24/2019 13:34	WG1271083
1,1-Dichloroethane	U			0.114	0.500	1	04/24/2019 13:34	WG1271083
1,2-Dichloroethane	U			0.108	0.500	1	04/24/2019 13:34	WG1271083
1,1-Dichloroethene	U			0.188	0.500	1	04/24/2019 13:34	WG1271083
cis-1,2-Dichloroethene	10.8			0.0933	0.500	1	04/24/2019 13:34	WG1271083
trans-1,2-Dichloroethene	U			0.152	0.500	1	04/24/2019 13:34	WG1271083
1,2-Dichloropropane	U			0.190	0.500	1	04/24/2019 13:34	WG1271083
1,1-Dichloropropene	U			0.128	0.500	1	04/24/2019 13:34	WG1271083
1,3-Dichloropropane	U			0.147	1.00	1	04/24/2019 13:34	WG1271083
cis-1,3-Dichloropropene	U			0.0976	0.500	1	04/24/2019 13:34	WG1271083
trans-1,3-Dichloropropene	U			0.222	0.500	1	04/24/2019 13:34	WG1271083
trans-1,4-Dichloro-2-butene	U			0.257	5.00	1	04/24/2019 13:34	WG1271083
2,2-Dichloropropane	U			0.0929	0.500	1	04/24/2019 13:34	WG1271083
Di-isopropyl ether	U			0.0924	0.500	1	04/24/2019 13:34	WG1271083
Ethylbenzene	U			0.158	0.500	1	04/24/2019 13:34	WG1271083
Hexachloro-1,3-butadiene	U			0.157	1.00	1	04/24/2019 13:34	WG1271083
2-Hexanone	U			0.757	5.00	1	04/24/2019 13:34	WG1271083
n-Hexane	U			0.305	5.00	1	04/24/2019 13:34	WG1271083
Iodomethane	U			0.377	10.0	1	04/24/2019 13:34	WG1271083
Isopropylbenzene	U			0.126	0.500	1	04/24/2019 13:34	WG1271083
p-Isopropyltoluene	U			0.138	0.500	1	04/24/2019 13:34	WG1271083
2-Butanone (MEK)	U			1.28	5.00	1	04/24/2019 13:34	WG1271083
Methylene Chloride	U			1.07	2.50	1	04/24/2019 13:34	WG1271083
4-Methyl-2-pentanone (MIBK)	U			0.823	5.00	1	04/24/2019 13:34	WG1271083
Methyl tert-butyl ether	U			0.102	0.500	1	04/24/2019 13:34	WG1271083
Naphthalene	U			0.174	2.50	1	04/24/2019 13:34	WG1271083
n-Propylbenzene	U			0.162	0.500	1	04/24/2019 13:34	WG1271083
Styrene	U			0.117	0.500	1	04/24/2019 13:34	WG1271083
1,1,2-Tetrachloroethane	U			0.120	0.500	1	04/24/2019 13:34	WG1271083
1,1,2,2-Tetrachloroethane	U			0.130	0.500	1	04/24/2019 13:34	WG1271083

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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		
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 13:34	WG1271083	¹ Cp	
Tetrachloroethene	U		0.199	0.500	1	04/24/2019 13:34	WG1271083	² Tc	
Toluene	U		0.412	0.500	1	04/24/2019 13:34	WG1271083	³ Ss	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 13:34	WG1271083		
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 13:34	WG1271083		
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 13:34	WG1271083		
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 13:34	WG1271083		
Trichloroethene	U		0.153	0.500	1	04/24/2019 13:34	WG1271083		
Trichlorofluoromethane	U	UJ	JO	0.130	2.50	1	04/24/2019 13:34	WG1271083	⁵ Sr
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 13:34	WG1271083		
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 13:34	WG1271083	⁶ Qc	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 13:34	WG1271083		
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 13:34	WG1271083		
Vinyl acetate	U	UJ	JO	0.645	5.00	1	04/24/2019 13:34	WG1271083	⁷ Gl
Vinyl chloride	0.195	J	JJ JO	0.118	0.500	1	04/24/2019 13:34	WG1271083	
Xylenes, Total	U		0.316	1.50	1	04/24/2019 13:34	WG1271083		
(S) Toluene-d8	99.2			80.0-120		04/24/2019 13:34	WG1271083		
(S) 4-Bromofluorobenzene	104			77.0-126		04/24/2019 13:34	WG1271083		
(S) 1,2-Dichloroethane-d4	92.9			70.0-130		04/24/2019 13:34	WG1271083	⁸ Al	
								⁹ Sc	

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Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity	82900		2710	20000	1	04/29/2019 16:09	WG1273424

Sample Narrative:

L1091511-05 WG1273424: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	7090		51.9	1000	1	04/23/2019 18:20	WG1270336
Nitrate	U		22.7	100	1	04/23/2019 18:20	WG1270336
Sulfate	7650		77.4	5000	1	04/23/2019 18:20	WG1270336

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	6040		102	1000	1	04/23/2019 23:04	WG1270623

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Iron	4900		75.0	500	5	05/01/2019 19:44	WG1271163
Manganese	177		0.250	5.00	1	05/01/2019 19:22	WG1271163

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	04/24/2019 01:44	WG1270830
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	110			78.0-120		04/24/2019 01:44	WG1270830

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methane	281		0.287	0.678	1	04/24/2019 13:53	WG1271117
Ethane	1.12	J	J	0.296	1.29	04/24/2019 13:53	WG1271117
Ethene	1.13	J	J	0.422	1.27	04/24/2019 13:53	WG1271117

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	2.37	J	J JO	1.05	25.0	1	04/24/2019 13:54	WG1271083
Acrylonitrile	U			0.873	5.00	1	04/24/2019 13:54	WG1271083
Benzene	U			0.0896	0.500	1	04/24/2019 13:54	WG1271083
Bromobenzene	U			0.133	0.500	1	04/24/2019 13:54	WG1271083
Bromodichloromethane	U			0.0800	0.500	1	04/24/2019 13:54	WG1271083
Bromochloromethane	U			0.145	0.500	1	04/24/2019 13:54	WG1271083
Bromoform	U			0.186	0.500	1	04/24/2019 13:54	WG1271083
Bromomethane	U	UJ	JO	0.157	2.50	1	04/24/2019 13:54	WG1271083
n-Butylbenzene	U			0.143	0.500	1	04/24/2019 13:54	WG1271083
sec-Butylbenzene	U			0.134	0.500	1	04/24/2019 13:54	WG1271083
tert-Butylbenzene	U			0.183	0.500	1	04/24/2019 13:54	WG1271083
Carbon disulfide	U			0.101	0.500	1	04/24/2019 13:54	WG1271083
Carbon tetrachloride	U			0.159	0.500	1	04/24/2019 13:54	WG1271083

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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	
Chlorobenzene	U		0.140	0.500	1	04/24/2019 13:54	WG1271083	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/24/2019 13:54	WG1271083	² Tc
Chloroethane	U	UJ JO	0.141	2.50	1	04/24/2019 13:54	WG1271083	³ Ss
Chloroform	U		0.0860	0.500	1	04/24/2019 13:54	WG1271083	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/24/2019 13:54	WG1271083	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/24/2019 13:54	WG1271083	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/24/2019 13:54	WG1271083	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/24/2019 13:54	WG1271083	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	04/24/2019 13:54	WG1271083	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/24/2019 13:54	WG1271083	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/24/2019 13:54	WG1271083	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/24/2019 13:54	WG1271083	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/24/2019 13:54	WG1271083	
Dichlorodifluoromethane	U		0.127	2.50	1	04/24/2019 13:54	WG1271083	
1,1-Dichloroethane	U		0.114	0.500	1	04/24/2019 13:54	WG1271083	
1,2-Dichloroethane	U		0.108	0.500	1	04/24/2019 13:54	WG1271083	
1,1-Dichloroethene	U		0.188	0.500	1	04/24/2019 13:54	WG1271083	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/24/2019 13:54	WG1271083	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/24/2019 13:54	WG1271083	
1,2-Dichloropropane	U		0.190	0.500	1	04/24/2019 13:54	WG1271083	
1,1-Dichloropropene	U		0.128	0.500	1	04/24/2019 13:54	WG1271083	
1,3-Dichloropropane	U		0.147	1.00	1	04/24/2019 13:54	WG1271083	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/24/2019 13:54	WG1271083	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/24/2019 13:54	WG1271083	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/24/2019 13:54	WG1271083	
2,2-Dichloropropane	U		0.0929	0.500	1	04/24/2019 13:54	WG1271083	
Di-isopropyl ether	U		0.0924	0.500	1	04/24/2019 13:54	WG1271083	
Ethylbenzene	U		0.158	0.500	1	04/24/2019 13:54	WG1271083	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/24/2019 13:54	WG1271083	
2-Hexanone	U		0.757	5.00	1	04/24/2019 13:54	WG1271083	
n-Hexane	U		0.305	5.00	1	04/24/2019 13:54	WG1271083	
Iodomethane	U		0.377	10.0	1	04/24/2019 13:54	WG1271083	
Isopropylbenzene	U		0.126	0.500	1	04/24/2019 13:54	WG1271083	
p-Isopropyltoluene	U		0.138	0.500	1	04/24/2019 13:54	WG1271083	
2-Butanone (MEK)	U		1.28	5.00	1	04/24/2019 13:54	WG1271083	
Methylene Chloride	U		1.07	2.50	1	04/24/2019 13:54	WG1271083	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/24/2019 13:54	WG1271083	
Methyl tert-butyl ether	U		0.102	0.500	1	04/24/2019 13:54	WG1271083	
Naphthalene	U		0.174	2.50	1	04/24/2019 13:54	WG1271083	
n-Propylbenzene	U		0.162	0.500	1	04/24/2019 13:54	WG1271083	
Styrene	U		0.117	0.500	1	04/24/2019 13:54	WG1271083	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/24/2019 13:54	WG1271083	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/24/2019 13:54	WG1271083	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 13:54	WG1271083	
Tetrachloroethene	U		0.199	0.500	1	04/24/2019 13:54	WG1271083	
Toluene	U		0.412	0.500	1	04/24/2019 13:54	WG1271083	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 13:54	WG1271083	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 13:54	WG1271083	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 13:54	WG1271083	JC 5/7/19
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 13:54	WG1271083	
Trichloroethene	U		0.153	0.500	1	04/24/2019 13:54	WG1271083	
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	04/24/2019 13:54	WG1271083	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 13:54	WG1271083	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 13:54	WG1271083	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 13:54	WG1271083	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 13:54	WG1271083	



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

Analyte	Result ug/l	Qualifier <u>UJ</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Vinyl acetate	U	<u>UJ</u>	0.645	5.00	1	04/24/2019 13:54	WG1271083	¹ Cp
Vinyl chloride	U	<u>UJ</u>	0.118	0.500	1	04/24/2019 13:54	WG1271083	² Tc
Xylenes, Total	U		0.316	1.50	1	04/24/2019 13:54	WG1271083	³ Ss
(S) Toluene-d8	99.6			80.0-120		04/24/2019 13:54	WG1271083	⁴ Cn
(S) 4-Bromofluorobenzene	105			77.0-126		04/24/2019 13:54	WG1271083	⁵ Sr
(S) 1,2-Dichloroethane-d4	95.4			70.0-130		04/24/2019 13:54	WG1271083	⁶ Qc

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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	04/23/2019 22:57	WG1270830
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	111			78.0-120		04/23/2019 22:57	WG1270830

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Acetone	U		1.05	25.0	1	04/24/2019 12:14	WG1271083	
Acrylonitrile	U		0.873	5.00	1	04/24/2019 12:14	WG1271083	
Benzene	U		0.0896	0.500	1	04/24/2019 12:14	WG1271083	
Bromobenzene	U		0.133	0.500	1	04/24/2019 12:14	WG1271083	
Bromodichloromethane	U		0.0800	0.500	1	04/24/2019 12:14	WG1271083	
Bromoform	U		0.145	0.500	1	04/24/2019 12:14	WG1271083	
Bromomethane	U	UJ	JO	0.157	2.50	1	04/24/2019 12:14	WG1271083
n-Butylbenzene	U		0.143	0.500	1	04/24/2019 12:14	WG1271083	
sec-Butylbenzene	U		0.134	0.500	1	04/24/2019 12:14	WG1271083	
tert-Butylbenzene	U		0.183	0.500	1	04/24/2019 12:14	WG1271083	
Carbon disulfide	U		0.101	0.500	1	04/24/2019 12:14	WG1271083	
Carbon tetrachloride	U		0.159	0.500	1	04/24/2019 12:14	WG1271083	
Chlorobenzene	U		0.140	0.500	1	04/24/2019 12:14	WG1271083	
Chlorodibromomethane	U		0.128	0.500	1	04/24/2019 12:14	WG1271083	
Chloroethane	U	UJ	JO	0.141	2.50	1	04/24/2019 12:14	WG1271083
Chloroform	U		0.0860	0.500	1	04/24/2019 12:14	WG1271083	
Chloromethane	U		0.153	1.25	1	04/24/2019 12:14	WG1271083	
2-Chlorotoluene	U		0.111	0.500	1	04/24/2019 12:14	WG1271083	
4-Chlorotoluene	U		0.0972	0.500	1	04/24/2019 12:14	WG1271083	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/24/2019 12:14	WG1271083	
1,2-Dibromoethane	U		0.193	0.500	1	04/24/2019 12:14	WG1271083	
Dibromomethane	U		0.117	0.500	1	04/24/2019 12:14	WG1271083	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/24/2019 12:14	WG1271083	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/24/2019 12:14	WG1271083	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/24/2019 12:14	WG1271083	
Dichlorodifluoromethane	U		0.127	2.50	1	04/24/2019 12:14	WG1271083	
1,1-Dichloroethane	U		0.114	0.500	1	04/24/2019 12:14	WG1271083	
1,2-Dichloroethane	U		0.108	0.500	1	04/24/2019 12:14	WG1271083	
1,1-Dichloroethene	U		0.188	0.500	1	04/24/2019 12:14	WG1271083	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/24/2019 12:14	WG1271083	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/24/2019 12:14	WG1271083	
1,2-Dichloropropane	U		0.190	0.500	1	04/24/2019 12:14	WG1271083	
1,1-Dichloropropene	U		0.128	0.500	1	04/24/2019 12:14	WG1271083	
1,3-Dichloropropane	U		0.147	1.00	1	04/24/2019 12:14	WG1271083	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/24/2019 12:14	WG1271083	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/24/2019 12:14	WG1271083	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/24/2019 12:14	WG1271083	
2,2-Dichloropropane	U		0.0929	0.500	1	04/24/2019 12:14	WG1271083	
Di-isopropyl ether	U		0.0924	0.500	1	04/24/2019 12:14	WG1271083	
Ethylbenzene	U		0.158	0.500	1	04/24/2019 12:14	WG1271083	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/24/2019 12:14	WG1271083	
2-Hexanone	U		0.757	5.00	1	04/24/2019 12:14	WG1271083	
n-Hexane	U		0.305	5.00	1	04/24/2019 12:14	WG1271083	
Iodomethane	U		0.377	10.0	1	04/24/2019 12:14	WG1271083	
Isopropylbenzene	U		0.126	0.500	1	04/24/2019 12:14	WG1271083	
p-Isopropyltoluene	U		0.138	0.500	1	04/24/2019 12:14	WG1271083	
2-Butanone (MEK)	U		1.28	5.00	1	04/24/2019 12:14	WG1271083	

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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		
Methylene Chloride	U		1.07	2.50	1	04/24/2019 12:14	WG1271083	¹ Cp	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/24/2019 12:14	WG1271083	² Tc	
Methyl tert-butyl ether	U		0.102	0.500	1	04/24/2019 12:14	WG1271083	³ Ss	
Naphthalene	U		0.174	2.50	1	04/24/2019 12:14	WG1271083		
n-Propylbenzene	U		0.162	0.500	1	04/24/2019 12:14	WG1271083		
Styrene	U		0.117	0.500	1	04/24/2019 12:14	WG1271083		
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/24/2019 12:14	WG1271083		
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/24/2019 12:14	WG1271083		
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 12:14	WG1271083		
Tetrachloroethene	U		0.199	0.500	1	04/24/2019 12:14	WG1271083		
Toluene	U		0.412	0.500	1	04/24/2019 12:14	WG1271083	⁶ Qc	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 12:14	WG1271083		
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 12:14	WG1271083		
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 12:14	WG1271083		
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 12:14	WG1271083		
Trichloroethene	U		0.153	0.500	1	04/24/2019 12:14	WG1271083		
Trichlorofluoromethane	U	UJ	JO	0.130	2.50	1	04/24/2019 12:14	WG1271083	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 12:14	WG1271083		
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 12:14	WG1271083		
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 12:14	WG1271083		
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 12:14	WG1271083		
Vinyl acetate	U	UJ	JO	0.645	5.00	1	04/24/2019 12:14	WG1271083	
Vinyl chloride	U	UJ	JO	0.118	0.500	1	04/24/2019 12:14	WG1271083	
Xylenes, Total	U		0.316	1.50	1	04/24/2019 12:14	WG1271083		
(S) Toluene-d8	99.5			80.0-120		04/24/2019 12:14	WG1271083		
(S) 4-Bromofluorobenzene	105			77.0-126		04/24/2019 12:14	WG1271083		
(S) 1,2-Dichloroethane-d4	93.6			70.0-130		04/24/2019 12:14	WG1271083		

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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	04/24/2019 02:08	WG1270830
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	110			78.0-120		04/24/2019 02:08	WG1270830

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	
Acetone	U		1.05	25.0	1	04/24/2019 14:14	WG1271083	
Acrylonitrile	U		0.873	5.00	1	04/24/2019 14:14	WG1271083	
Benzene	U		0.0896	0.500	1	04/24/2019 14:14	WG1271083	
Bromobenzene	U		0.133	0.500	1	04/24/2019 14:14	WG1271083	
Bromodichloromethane	U		0.0800	0.500	1	04/24/2019 14:14	WG1271083	
Bromoform	U		0.145	0.500	1	04/24/2019 14:14	WG1271083	
Bromomethane	U	UJ	JO	0.157	2.50	1	04/24/2019 14:14	WG1271083
n-Butylbenzene	U		0.143	0.500	1	04/24/2019 14:14	WG1271083	
sec-Butylbenzene	U		0.134	0.500	1	04/24/2019 14:14	WG1271083	
tert-Butylbenzene	U		0.183	0.500	1	04/24/2019 14:14	WG1271083	
Carbon disulfide	U		0.101	0.500	1	04/24/2019 14:14	WG1271083	
Carbon tetrachloride	U		0.159	0.500	1	04/24/2019 14:14	WG1271083	
Chlorobenzene	U		0.140	0.500	1	04/24/2019 14:14	WG1271083	
Chlorodibromomethane	U		0.128	0.500	1	04/24/2019 14:14	WG1271083	
Chloroethane	U	UJ	JO	0.141	2.50	1	04/24/2019 14:14	WG1271083
Chloroform	1.28		0.0860	0.500	1	04/24/2019 14:14	WG1271083	
Chloromethane	U		0.153	1.25	1	04/24/2019 14:14	WG1271083	
2-Chlorotoluene	U		0.111	0.500	1	04/24/2019 14:14	WG1271083	
4-Chlorotoluene	U		0.0972	0.500	1	04/24/2019 14:14	WG1271083	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/24/2019 14:14	WG1271083	
1,2-Dibromoethane	U		0.193	0.500	1	04/24/2019 14:14	WG1271083	
Dibromomethane	U		0.117	0.500	1	04/24/2019 14:14	WG1271083	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/24/2019 14:14	WG1271083	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/24/2019 14:14	WG1271083	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/24/2019 14:14	WG1271083	
Dichlorodifluoromethane	U		0.127	2.50	1	04/24/2019 14:14	WG1271083	
1,1-Dichloroethane	U		0.114	0.500	1	04/24/2019 14:14	WG1271083	
1,2-Dichloroethane	U		0.108	0.500	1	04/24/2019 14:14	WG1271083	
1,1-Dichloroethene	U		0.188	0.500	1	04/24/2019 14:14	WG1271083	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/24/2019 14:14	WG1271083	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/24/2019 14:14	WG1271083	
1,2-Dichloropropane	U		0.190	0.500	1	04/24/2019 14:14	WG1271083	
1,1-Dichloropropene	U		0.128	0.500	1	04/24/2019 14:14	WG1271083	
1,3-Dichloropropane	U		0.147	1.00	1	04/24/2019 14:14	WG1271083	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/24/2019 14:14	WG1271083	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/24/2019 14:14	WG1271083	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/24/2019 14:14	WG1271083	
2,2-Dichloropropane	U		0.0929	0.500	1	04/24/2019 14:14	WG1271083	
Di-isopropyl ether	U		0.0924	0.500	1	04/24/2019 14:14	WG1271083	
Ethylbenzene	U		0.158	0.500	1	04/24/2019 14:14	WG1271083	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/24/2019 14:14	WG1271083	
2-Hexanone	U		0.757	5.00	1	04/24/2019 14:14	WG1271083	
n-Hexane	U		0.305	5.00	1	04/24/2019 14:14	WG1271083	
Iodomethane	U		0.377	10.0	1	04/24/2019 14:14	WG1271083	
Isopropylbenzene	U		0.126	0.500	1	04/24/2019 14:14	WG1271083	
p-Isopropyltoluene	U		0.138	0.500	1	04/24/2019 14:14	WG1271083	
2-Butanone (MEK)	U		1.28	5.00	1	04/24/2019 14:14	WG1271083	

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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		
Methylene Chloride	U		1.07	2.50	1	04/24/2019 14:14	WG1271083	¹ Cp	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/24/2019 14:14	WG1271083	² Tc	
Methyl tert-butyl ether	U		0.102	0.500	1	04/24/2019 14:14	WG1271083	³ Ss	
Naphthalene	U		0.174	2.50	1	04/24/2019 14:14	WG1271083	⁴ Cn	
n-Propylbenzene	U		0.162	0.500	1	04/24/2019 14:14	WG1271083	⁵ Sr	
Styrene	U		0.117	0.500	1	04/24/2019 14:14	WG1271083	⁶ Qc	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/24/2019 14:14	WG1271083	⁷ Gl	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/24/2019 14:14	WG1271083	⁸ Al	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 14:14	WG1271083	⁹ Sc	
Tetrachloroethene	0.499	J J	0.199	0.500	1	04/24/2019 14:14	WG1271083		
Toluene	0.428	J J	0.412	0.500	1	04/24/2019 14:14	WG1271083		
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 14:14	WG1271083		
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 14:14	WG1271083		
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 14:14	WG1271083		
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 14:14	WG1271083		
Trichloroethene	0.155	J J	0.153	0.500	1	04/24/2019 14:14	WG1271083		
Trichlorofluoromethane	U	UJ	JO	0.130	2.50	1	04/24/2019 14:14	WG1271083	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 14:14	WG1271083		
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 14:14	WG1271083		
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 14:14	WG1271083		
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 14:14	WG1271083		
Vinyl acetate	U	UJ JO	0.645	5.00	1	04/24/2019 14:14	WG1271083		
Vinyl chloride	U	UJ JO	0.118	0.500	1	04/24/2019 14:14	WG1271083		
Xylenes, Total	U		0.316	1.50	1	04/24/2019 14:14	WG1271083		
(S) Toluene-d8	99.5			80.0-120		04/24/2019 14:14	WG1271083		
(S) 4-Bromofluorobenzene	104			77.0-126		04/24/2019 14:14	WG1271083		
(S) 1,2-Dichloroethane-d4	94.6			70.0-130		04/24/2019 14:14	WG1271083		

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ANALYTICAL REPORT

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¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

PES Environmental, Inc.- WA

Sample Delivery Group: L1091936
Samples Received: 04/24/2019
Project Number: 1413.001.05.601
Description: American Linen
Site: AMERICAN LINEN
Report To: Brian O'Neal/Bill Haldeman
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Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford
Project Manager

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



			Collected by KZ/BH	Collected date/time 04/22/19 15:05	Received date/time 04/24/19 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271705	1	04/25/19 16:48	04/25/19 16:48	BMB	Mt. Juliet, TN
MW111-042219 L1091936-02 GW			Collected by KZ/BH	Collected date/time 04/22/19 15:05	Received date/time 04/24/19 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271705	1	04/25/19 17:08	04/25/19 17:08	BMB	Mt. Juliet, TN
MW104-042319 L1091936-03 GW			Collected by KZ/BH	Collected date/time 04/23/19 08:35	Received date/time 04/24/19 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1273424	1	04/29/19 17:35	04/29/19 17:35	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1271082	1	04/24/19 19:20	04/24/19 19:20	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1271094	1	04/24/19 22:37	04/24/19 22:37	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271169	5	04/26/19 14:47	05/07/19 00:32	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1271515	1	04/25/19 14:32	04/25/19 14:32	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1271298	1	04/26/19 13:42	04/26/19 13:42	MEL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271083	1	04/24/19 18:16	04/24/19 18:16	JCP	Mt. Juliet, TN
MW105-042319 L1091936-04 GW			Collected by KZ/BH	Collected date/time 04/23/19 10:35	Received date/time 04/24/19 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1273424	1	04/29/19 17:43	04/29/19 17:43	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1271082	1	04/24/19 19:35	04/24/19 19:35	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1271094	1	04/24/19 23:17	04/24/19 23:17	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271169	5	04/26/19 14:47	05/07/19 00:37	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1271515	1	04/25/19 14:56	04/25/19 14:56	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1271298	1	04/26/19 13:45	04/26/19 13:45	MEL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271083	1	04/24/19 18:36	04/24/19 18:36	JCP	Mt. Juliet, TN
MW147-042319 L1091936-05 GW			Collected by KZ/BH	Collected date/time 04/23/19 14:00	Received date/time 04/24/19 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1273424	1	04/29/19 17:50	04/29/19 17:50	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1271082	1	04/24/19 19:49	04/24/19 19:49	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1271094	1	04/24/19 23:34	04/24/19 23:34	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271169	5	04/26/19 14:47	05/07/19 00:43	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1271515	1	04/25/19 15:20	04/25/19 15:20	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1271298	1	04/26/19 13:49	04/26/19 13:49	MEL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1271298	10	04/26/19 14:59	04/26/19 14:59	MEL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271083	1	04/24/19 18:56	04/24/19 18:56	JCP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1272362	10	04/26/19 12:43	04/26/19 12:43	ACG	Mt. Juliet, TN



SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



TRIP BLANK-042319 L1091936-06 GW

Collected by KZ/BH	Collected date/time 04/23/19 00:00	Received date/time 04/24/19 08:45
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Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1271515	1	04/25/19 12:32	04/25/19 12:32	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271083	1	04/24/19 16:36	04/24/19 16:36	JCP	Mt. Juliet, TN

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



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 GI
- ⁸ AI
- 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	1.66	J JO J3 J4	1.05	25.0	1	04/25/2019 16:48	WG1271705	¹ Cp
Acrylonitrile	U		0.873	5.00	1	04/25/2019 16:48	WG1271705	² Tc
Benzene	U		0.0896	0.500	1	04/25/2019 16:48	WG1271705	³ Ss
Bromobenzene	U		0.133	0.500	1	04/25/2019 16:48	WG1271705	⁴ Cn
Bromodichloromethane	U		0.0800	0.500	1	04/25/2019 16:48	WG1271705	⁵ Sr
Bromoform	U		0.145	0.500	1	04/25/2019 16:48	WG1271705	⁶ Qc
Bromomethane	U	JO	0.157	2.50	1	04/25/2019 16:48	WG1271705	⁷ GI
n-Butylbenzene	U		0.143	0.500	1	04/25/2019 16:48	WG1271705	⁸ AI
sec-Butylbenzene	U		0.134	0.500	1	04/25/2019 16:48	WG1271705	⁹ Sc
tert-Butylbenzene	U		0.183	0.500	1	04/25/2019 16:48	WG1271705	
Carbon disulfide	U		0.101	0.500	1	04/25/2019 16:48	WG1271705	
Carbon tetrachloride	U		0.159	0.500	1	04/25/2019 16:48	WG1271705	
Chlorobenzene	U		0.140	0.500	1	04/25/2019 16:48	WG1271705	
Chlorodibromomethane	U		0.128	0.500	1	04/25/2019 16:48	WG1271705	
Chloroethane	U	JO	0.141	2.50	1	04/25/2019 16:48	WG1271705	
Chloroform	U		0.0860	0.500	1	04/25/2019 16:48	WG1271705	
Chloromethane	U		0.153	1.25	1	04/25/2019 16:48	WG1271705	
2-Chlorotoluene	U		0.111	0.500	1	04/25/2019 16:48	WG1271705	
4-Chlorotoluene	U		0.0972	0.500	1	04/25/2019 16:48	WG1271705	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/25/2019 16:48	WG1271705	
1,2-Dibromoethane	U		0.193	0.500	1	04/25/2019 16:48	WG1271705	
Dibromomethane	U		0.117	0.500	1	04/25/2019 16:48	WG1271705	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/25/2019 16:48	WG1271705	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/25/2019 16:48	WG1271705	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/25/2019 16:48	WG1271705	
Dichlorodifluoromethane	U		0.127	2.50	1	04/25/2019 16:48	WG1271705	
1,1-Dichloroethane	U		0.114	0.500	1	04/25/2019 16:48	WG1271705	
1,2-Dichloroethane	U		0.108	0.500	1	04/25/2019 16:48	WG1271705	
1,1-Dichloroethene	1.22		0.188	0.500	1	04/25/2019 16:48	WG1271705	
cis-1,2-Dichloroethene	88.0		0.0933	0.500	1	04/25/2019 16:48	WG1271705	
trans-1,2-Dichloroethene	0.209	J	0.152	0.500	1	04/25/2019 16:48	WG1271705	
1,2-Dichloropropane	U		0.190	0.500	1	04/25/2019 16:48	WG1271705	
1,1-Dichloropropene	U		0.128	0.500	1	04/25/2019 16:48	WG1271705	
1,3-Dichloropropane	U		0.147	1.00	1	04/25/2019 16:48	WG1271705	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/25/2019 16:48	WG1271705	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/25/2019 16:48	WG1271705	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/25/2019 16:48	WG1271705	
2,2-Dichloropropane	U		0.0929	0.500	1	04/25/2019 16:48	WG1271705	
Di-isopropyl ether	U		0.0924	0.500	1	04/25/2019 16:48	WG1271705	
Ethylbenzene	U		0.158	0.500	1	04/25/2019 16:48	WG1271705	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/25/2019 16:48	WG1271705	
2-Hexanone	U		0.757	5.00	1	04/25/2019 16:48	WG1271705	
n-Hexane	U		0.305	5.00	1	04/25/2019 16:48	WG1271705	
Iodomethane	U		0.377	10.0	1	04/25/2019 16:48	WG1271705	
Isopropylbenzene	U		0.126	0.500	1	04/25/2019 16:48	WG1271705	
p-Isopropyltoluene	U		0.138	0.500	1	04/25/2019 16:48	WG1271705	
2-Butanone (MEK)	U		1.28	5.00	1	04/25/2019 16:48	WG1271705	
Methylene Chloride	U		1.07	2.50	1	04/25/2019 16:48	WG1271705	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 16:48	WG1271705	
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 16:48	WG1271705	
Naphthalene	U		0.174	2.50	1	04/25/2019 16:48	WG1271705	
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 16:48	WG1271705	
Styrene	U		0.117	0.500	1	04/25/2019 16:48	WG1271705	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 16:48	WG1271705	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 16:48	WG1271705	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 16:48	WG1271705	¹ Cp
Tetrachloroethene	U		0.199	0.500	1	04/25/2019 16:48	WG1271705	² Tc
Toluene	U		0.412	0.500	1	04/25/2019 16:48	WG1271705	³ Ss
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 16:48	WG1271705	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 16:48	WG1271705	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 16:48	WG1271705	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 16:48	WG1271705	
Trichloroethene	3.09		0.153	0.500	1	04/25/2019 16:48	WG1271705	
Trichlorofluoromethane	U	JO	0.130	2.50	1	04/25/2019 16:48	WG1271705	⁵ Sr
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 16:48	WG1271705	⁶ Qc
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 16:48	WG1271705	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 16:48	WG1271705	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 16:48	WG1271705	
Vinyl acetate	U		0.645	5.00	1	04/25/2019 16:48	WG1271705	
Vinyl chloride	32.3	JO	0.118	0.500	1	04/25/2019 16:48	WG1271705	⁷ Gl
Xylenes, Total	U		0.316	1.50	1	04/25/2019 16:48	WG1271705	⁸ Al
(S) Toluene-d8	100			80.0-120		04/25/2019 16:48	WG1271705	
(S) 4-Bromofluorobenzene	105			77.0-126		04/25/2019 16:48	WG1271705	
(S) 1,2-Dichloroethane-d4	91.6			70.0-130		04/25/2019 16:48	WG1271705	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	1.17	J JO J3 J4	1.05	25.0	1	04/25/2019 17:08	WG1271705	¹ Cp
Acrylonitrile	U		0.873	5.00	1	04/25/2019 17:08	WG1271705	² Tc
Benzene	U		0.0896	0.500	1	04/25/2019 17:08	WG1271705	³ Ss
Bromobenzene	U		0.133	0.500	1	04/25/2019 17:08	WG1271705	⁴ Cn
Bromodichloromethane	U		0.0800	0.500	1	04/25/2019 17:08	WG1271705	⁵ Sr
Bromoform	U		0.145	0.500	1	04/25/2019 17:08	WG1271705	⁶ Qc
Bromomethane	U	J0	0.157	2.50	1	04/25/2019 17:08	WG1271705	⁷ GI
n-Butylbenzene	U		0.143	0.500	1	04/25/2019 17:08	WG1271705	⁸ AI
sec-Butylbenzene	U		0.134	0.500	1	04/25/2019 17:08	WG1271705	⁹ Sc
tert-Butylbenzene	U		0.183	0.500	1	04/25/2019 17:08	WG1271705	
Carbon disulfide	U		0.101	0.500	1	04/25/2019 17:08	WG1271705	
Carbon tetrachloride	U		0.159	0.500	1	04/25/2019 17:08	WG1271705	
Chlorobenzene	U		0.140	0.500	1	04/25/2019 17:08	WG1271705	
Chlorodibromomethane	U		0.128	0.500	1	04/25/2019 17:08	WG1271705	
Chloroethane	0.255	J JO	0.141	2.50	1	04/25/2019 17:08	WG1271705	
Chloroform	U		0.0860	0.500	1	04/25/2019 17:08	WG1271705	
Chloromethane	U		0.153	1.25	1	04/25/2019 17:08	WG1271705	
2-Chlorotoluene	U		0.111	0.500	1	04/25/2019 17:08	WG1271705	
4-Chlorotoluene	U		0.0972	0.500	1	04/25/2019 17:08	WG1271705	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/25/2019 17:08	WG1271705	
1,2-Dibromoethane	U		0.193	0.500	1	04/25/2019 17:08	WG1271705	
Dibromomethane	U		0.117	0.500	1	04/25/2019 17:08	WG1271705	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/25/2019 17:08	WG1271705	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/25/2019 17:08	WG1271705	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/25/2019 17:08	WG1271705	
Dichlorodifluoromethane	U		0.127	2.50	1	04/25/2019 17:08	WG1271705	
1,1-Dichloroethane	U		0.114	0.500	1	04/25/2019 17:08	WG1271705	
1,2-Dichloroethane	U		0.108	0.500	1	04/25/2019 17:08	WG1271705	
1,1-Dichloroethene	U		0.188	0.500	1	04/25/2019 17:08	WG1271705	
cis-1,2-Dichloroethene	3.18		0.0933	0.500	1	04/25/2019 17:08	WG1271705	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/25/2019 17:08	WG1271705	
1,2-Dichloropropane	U		0.190	0.500	1	04/25/2019 17:08	WG1271705	
1,1-Dichloropropene	U		0.128	0.500	1	04/25/2019 17:08	WG1271705	
1,3-Dichloropropane	U		0.147	1.00	1	04/25/2019 17:08	WG1271705	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/25/2019 17:08	WG1271705	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/25/2019 17:08	WG1271705	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/25/2019 17:08	WG1271705	
2,2-Dichloropropane	U		0.0929	0.500	1	04/25/2019 17:08	WG1271705	
Di-isopropyl ether	U		0.0924	0.500	1	04/25/2019 17:08	WG1271705	
Ethylbenzene	U		0.158	0.500	1	04/25/2019 17:08	WG1271705	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/25/2019 17:08	WG1271705	
2-Hexanone	U		0.757	5.00	1	04/25/2019 17:08	WG1271705	
n-Hexane	U		0.305	5.00	1	04/25/2019 17:08	WG1271705	
Iodomethane	U		0.377	10.0	1	04/25/2019 17:08	WG1271705	
Isopropylbenzene	U		0.126	0.500	1	04/25/2019 17:08	WG1271705	
p-Isopropyltoluene	U		0.138	0.500	1	04/25/2019 17:08	WG1271705	
2-Butanone (MEK)	U		1.28	5.00	1	04/25/2019 17:08	WG1271705	
Methylene Chloride	U		1.07	2.50	1	04/25/2019 17:08	WG1271705	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 17:08	WG1271705	
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 17:08	WG1271705	
Naphthalene	U		0.174	2.50	1	04/25/2019 17:08	WG1271705	
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 17:08	WG1271705	
Styrene	U		0.117	0.500	1	04/25/2019 17:08	WG1271705	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 17:08	WG1271705	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 17:08	WG1271705	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 17:08	WG1271705	¹ Cp
Tetrachloroethene	U		0.199	0.500	1	04/25/2019 17:08	WG1271705	² Tc
Toluene	U		0.412	0.500	1	04/25/2019 17:08	WG1271705	³ Ss
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 17:08	WG1271705	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 17:08	WG1271705	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 17:08	WG1271705	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 17:08	WG1271705	
Trichloroethene	U		0.153	0.500	1	04/25/2019 17:08	WG1271705	
Trichlorofluoromethane	U	J0	0.130	2.50	1	04/25/2019 17:08	WG1271705	⁵ Sr
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 17:08	WG1271705	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 17:08	WG1271705	⁶ Qc
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 17:08	WG1271705	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 17:08	WG1271705	
Vinyl acetate	U		0.645	5.00	1	04/25/2019 17:08	WG1271705	
Vinyl chloride	19.5	J0	0.118	0.500	1	04/25/2019 17:08	WG1271705	⁷ Gl
Xylenes, Total	U		0.316	1.50	1	04/25/2019 17:08	WG1271705	
(S) Toluene-d8	100			80.0-120		04/25/2019 17:08	WG1271705	
(S) 4-Bromofluorobenzene	104			77.0-126		04/25/2019 17:08	WG1271705	
(S) 1,2-Dichloroethane-d4	93.3			70.0-130		04/25/2019 17:08	WG1271705	⁸ Al

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	196000		2710	20000	1	04/29/2019 17:35	WG1273424

Sample Narrative:

L1091936-03 WG1273424: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	18600		51.9	1000	1	04/24/2019 19:20	WG1271082
Nitrate	U		22.7	100	1	04/24/2019 19:20	WG1271082
Sulfate	5960		77.4	5000	1	04/24/2019 19:20	WG1271082

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	5970		102	1000	1	04/24/2019 22:37	WG1271094

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	5030		75.0	500	5	05/07/2019 00:32	WG1271169
Manganese	285		1.25	25.0	5	05/07/2019 00:32	WG1271169

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	174		31.6	100	1	04/25/2019 14:32	WG1271515
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	111			78.0-120		04/25/2019 14:32	WG1271515

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	437		0.287	0.678	1	04/26/2019 13:42	WG1271298
Ethane	2.60		0.296	1.29	1	04/26/2019 13:42	WG1271298
Ethene	17.7		0.422	1.27	1	04/26/2019 13:42	WG1271298

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	23.4	J JO	1.05	25.0	1	04/24/2019 18:16	WG1271083
Acrylonitrile	U		0.873	5.00	1	04/24/2019 18:16	WG1271083
Benzene	U		0.0896	0.500	1	04/24/2019 18:16	WG1271083
Bromobenzene	U		0.133	0.500	1	04/24/2019 18:16	WG1271083
Bromodichloromethane	U		0.0800	0.500	1	04/24/2019 18:16	WG1271083
Bromochloromethane	U		0.145	0.500	1	04/24/2019 18:16	WG1271083
Bromoform	U		0.186	0.500	1	04/24/2019 18:16	WG1271083
Bromomethane	U	J O	0.157	2.50	1	04/24/2019 18:16	WG1271083
n-Butylbenzene	U		0.143	0.500	1	04/24/2019 18:16	WG1271083
sec-Butylbenzene	U		0.134	0.500	1	04/24/2019 18:16	WG1271083
tert-Butylbenzene	U		0.183	0.500	1	04/24/2019 18:16	WG1271083
Carbon disulfide	U		0.101	0.500	1	04/24/2019 18:16	WG1271083
Carbon tetrachloride	U		0.159	0.500	1	04/24/2019 18:16	WG1271083



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	04/24/2019 18:16	WG1271083
Chlorodibromomethane	U		0.128	0.500	1	04/24/2019 18:16	WG1271083
Chloroethane	U	J0	0.141	2.50	1	04/24/2019 18:16	WG1271083
Chloroform	U		0.0860	0.500	1	04/24/2019 18:16	WG1271083
Chloromethane	U		0.153	1.25	1	04/24/2019 18:16	WG1271083
2-Chlorotoluene	U		0.111	0.500	1	04/24/2019 18:16	WG1271083
4-Chlorotoluene	U		0.0972	0.500	1	04/24/2019 18:16	WG1271083
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/24/2019 18:16	WG1271083
1,2-Dibromoethane	U		0.193	0.500	1	04/24/2019 18:16	WG1271083
Dibromomethane	U		0.117	0.500	1	04/24/2019 18:16	WG1271083
1,2-Dichlorobenzene	U		0.101	0.500	1	04/24/2019 18:16	WG1271083
1,3-Dichlorobenzene	U		0.130	0.500	1	04/24/2019 18:16	WG1271083
1,4-Dichlorobenzene	U		0.121	0.500	1	04/24/2019 18:16	WG1271083
Dichlorodifluoromethane	U		0.127	2.50	1	04/24/2019 18:16	WG1271083
1,1-Dichloroethane	U		0.114	0.500	1	04/24/2019 18:16	WG1271083
1,2-Dichloroethane	U		0.108	0.500	1	04/24/2019 18:16	WG1271083
1,1-Dichloroethene	5.86		0.188	0.500	1	04/24/2019 18:16	WG1271083
cis-1,2-Dichloroethene	162		0.0933	0.500	1	04/24/2019 18:16	WG1271083
trans-1,2-Dichloroethene	2.49		0.152	0.500	1	04/24/2019 18:16	WG1271083
1,2-Dichloropropane	U		0.190	0.500	1	04/24/2019 18:16	WG1271083
1,1-Dichloropropene	U		0.128	0.500	1	04/24/2019 18:16	WG1271083
1,3-Dichloropropane	U		0.147	1.00	1	04/24/2019 18:16	WG1271083
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/24/2019 18:16	WG1271083
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/24/2019 18:16	WG1271083
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/24/2019 18:16	WG1271083
2,2-Dichloropropane	U		0.0929	0.500	1	04/24/2019 18:16	WG1271083
Di-isopropyl ether	U		0.0924	0.500	1	04/24/2019 18:16	WG1271083
Ethylbenzene	U		0.158	0.500	1	04/24/2019 18:16	WG1271083
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/24/2019 18:16	WG1271083
2-Hexanone	U		0.757	5.00	1	04/24/2019 18:16	WG1271083
n-Hexane	U		0.305	5.00	1	04/24/2019 18:16	WG1271083
Iodomethane	U		0.377	10.0	1	04/24/2019 18:16	WG1271083
Isopropylbenzene	U		0.126	0.500	1	04/24/2019 18:16	WG1271083
p-Isopropyltoluene	U		0.138	0.500	1	04/24/2019 18:16	WG1271083
2-Butanone (MEK)	4.72	J	1.28	5.00	1	04/24/2019 18:16	WG1271083
Methylene Chloride	U		1.07	2.50	1	04/24/2019 18:16	WG1271083
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/24/2019 18:16	WG1271083
Methyl tert-butyl ether	U		0.102	0.500	1	04/24/2019 18:16	WG1271083
Naphthalene	U		0.174	2.50	1	04/24/2019 18:16	WG1271083
n-Propylbenzene	U		0.162	0.500	1	04/24/2019 18:16	WG1271083
Styrene	U		0.117	0.500	1	04/24/2019 18:16	WG1271083
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/24/2019 18:16	WG1271083
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/24/2019 18:16	WG1271083
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 18:16	WG1271083
Tetrachloroethene	15.9		0.199	0.500	1	04/24/2019 18:16	WG1271083
Toluene	U		0.412	0.500	1	04/24/2019 18:16	WG1271083
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 18:16	WG1271083
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 18:16	WG1271083
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 18:16	WG1271083
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 18:16	WG1271083
Trichloroethene	56.9		0.153	0.500	1	04/24/2019 18:16	WG1271083
Trichlorofluoromethane	U	J0	0.130	2.50	1	04/24/2019 18:16	WG1271083
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 18:16	WG1271083
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 18:16	WG1271083
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 18:16	WG1271083
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 18:16	WG1271083

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

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	
Vinyl acetate	U	<u>J0</u>	0.645	5.00	1	04/24/2019 18:16	<u>WG1271083</u>	¹ Cp
Vinyl chloride	21.1	<u>J0</u>	0.118	0.500	1	04/24/2019 18:16	<u>WG1271083</u>	² Tc
Xylenes, Total	U		0.316	1.50	1	04/24/2019 18:16	<u>WG1271083</u>	³ Ss
(S) Toluene-d8	100			80.0-120		04/24/2019 18:16	<u>WG1271083</u>	⁴ Cn
(S) 4-Bromofluorobenzene	106			77.0-126		04/24/2019 18:16	<u>WG1271083</u>	⁵ Sr
(S) 1,2-Dichloroethane-d4	92.0			70.0-130		04/24/2019 18:16	<u>WG1271083</u>	⁶ Qc



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	275000		2710	20000	1	04/29/2019 17:43	WG1273424

Sample Narrative:

L1091936-04 WG1273424: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	37900		51.9	1000	1	04/24/2019 19:35	WG1271082
Nitrate	U		22.7	100	1	04/24/2019 19:35	WG1271082
Sulfate	5810		77.4	5000	1	04/24/2019 19:35	WG1271082

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	4060		102	1000	1	04/24/2019 23:17	WG1271094

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	5270		75.0	500	5	05/07/2019 00:37	WG1271169
Manganese	893		1.25	25.0	5	05/07/2019 00:37	WG1271169

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/25/2019 14:56	WG1271515
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	111			78.0-120		04/25/2019 14:56	WG1271515

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	1660		0.287	0.678	1	04/26/2019 13:45	WG1271298
Ethane	U		0.296	1.29	1	04/26/2019 13:45	WG1271298
Ethene	U		0.422	1.27	1	04/26/2019 13:45	WG1271298

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	1.22	J JO	1.05	25.0	1	04/24/2019 18:36	WG1271083
Acrylonitrile	U		0.873	5.00	1	04/24/2019 18:36	WG1271083
Benzene	U		0.0896	0.500	1	04/24/2019 18:36	WG1271083
Bromobenzene	U		0.133	0.500	1	04/24/2019 18:36	WG1271083
Bromodichloromethane	U		0.0800	0.500	1	04/24/2019 18:36	WG1271083
Bromochloromethane	U		0.145	0.500	1	04/24/2019 18:36	WG1271083
Bromoform	U		0.186	0.500	1	04/24/2019 18:36	WG1271083
Bromomethane	U	J O	0.157	2.50	1	04/24/2019 18:36	WG1271083
n-Butylbenzene	U		0.143	0.500	1	04/24/2019 18:36	WG1271083
sec-Butylbenzene	U		0.134	0.500	1	04/24/2019 18:36	WG1271083
tert-Butylbenzene	U		0.183	0.500	1	04/24/2019 18:36	WG1271083
Carbon disulfide	U		0.101	0.500	1	04/24/2019 18:36	WG1271083
Carbon tetrachloride	U		0.159	0.500	1	04/24/2019 18:36	WG1271083



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	04/24/2019 18:36	WG1271083
Chlorodibromomethane	U		0.128	0.500	1	04/24/2019 18:36	WG1271083
Chloroethane	U	<u>JO</u>	0.141	2.50	1	04/24/2019 18:36	WG1271083
Chloroform	U		0.0860	0.500	1	04/24/2019 18:36	WG1271083
Chloromethane	U		0.153	1.25	1	04/24/2019 18:36	WG1271083
2-Chlorotoluene	U		0.111	0.500	1	04/24/2019 18:36	WG1271083
4-Chlorotoluene	U		0.0972	0.500	1	04/24/2019 18:36	WG1271083
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/24/2019 18:36	WG1271083
1,2-Dibromoethane	U		0.193	0.500	1	04/24/2019 18:36	WG1271083
Dibromomethane	U		0.117	0.500	1	04/24/2019 18:36	WG1271083
1,2-Dichlorobenzene	U		0.101	0.500	1	04/24/2019 18:36	WG1271083
1,3-Dichlorobenzene	U		0.130	0.500	1	04/24/2019 18:36	WG1271083
1,4-Dichlorobenzene	U		0.121	0.500	1	04/24/2019 18:36	WG1271083
Dichlorodifluoromethane	U		0.127	2.50	1	04/24/2019 18:36	WG1271083
1,1-Dichloroethane	U		0.114	0.500	1	04/24/2019 18:36	WG1271083
1,2-Dichloroethane	U		0.108	0.500	1	04/24/2019 18:36	WG1271083
1,1-Dichloroethene	U		0.188	0.500	1	04/24/2019 18:36	WG1271083
cis-1,2-Dichloroethene	0.917		0.0933	0.500	1	04/24/2019 18:36	WG1271083
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/24/2019 18:36	WG1271083
1,2-Dichloropropane	U		0.190	0.500	1	04/24/2019 18:36	WG1271083
1,1-Dichloropropene	U		0.128	0.500	1	04/24/2019 18:36	WG1271083
1,3-Dichloropropane	U		0.147	1.00	1	04/24/2019 18:36	WG1271083
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/24/2019 18:36	WG1271083
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/24/2019 18:36	WG1271083
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/24/2019 18:36	WG1271083
2,2-Dichloropropane	U		0.0929	0.500	1	04/24/2019 18:36	WG1271083
Di-isopropyl ether	U		0.0924	0.500	1	04/24/2019 18:36	WG1271083
Ethylbenzene	U		0.158	0.500	1	04/24/2019 18:36	WG1271083
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/24/2019 18:36	WG1271083
2-Hexanone	U		0.757	5.00	1	04/24/2019 18:36	WG1271083
n-Hexane	U		0.305	5.00	1	04/24/2019 18:36	WG1271083
Iodomethane	U		0.377	10.0	1	04/24/2019 18:36	WG1271083
Isopropylbenzene	U		0.126	0.500	1	04/24/2019 18:36	WG1271083
p-Isopropyltoluene	U		0.138	0.500	1	04/24/2019 18:36	WG1271083
2-Butanone (MEK)	U		1.28	5.00	1	04/24/2019 18:36	WG1271083
Methylene Chloride	U		1.07	2.50	1	04/24/2019 18:36	WG1271083
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/24/2019 18:36	WG1271083
Methyl tert-butyl ether	U		0.102	0.500	1	04/24/2019 18:36	WG1271083
Naphthalene	U		0.174	2.50	1	04/24/2019 18:36	WG1271083
n-Propylbenzene	U		0.162	0.500	1	04/24/2019 18:36	WG1271083
Styrene	U		0.117	0.500	1	04/24/2019 18:36	WG1271083
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/24/2019 18:36	WG1271083
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/24/2019 18:36	WG1271083
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 18:36	WG1271083
Tetrachloroethene	U		0.199	0.500	1	04/24/2019 18:36	WG1271083
Toluene	U		0.412	0.500	1	04/24/2019 18:36	WG1271083
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 18:36	WG1271083
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 18:36	WG1271083
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 18:36	WG1271083
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 18:36	WG1271083
Trichloroethene	U		0.153	0.500	1	04/24/2019 18:36	WG1271083
Trichlorofluoromethane	U	<u>JO</u>	0.130	2.50	1	04/24/2019 18:36	WG1271083
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 18:36	WG1271083
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 18:36	WG1271083
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 18:36	WG1271083
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 18:36	WG1271083

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- 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	
Vinyl acetate	U	J0	0.645	5.00	1	04/24/2019 18:36	WG1271083	¹ Cp
Vinyl chloride	0.238	J J0	0.118	0.500	1	04/24/2019 18:36	WG1271083	² Tc
Xylenes, Total	U		0.316	1.50	1	04/24/2019 18:36	WG1271083	³ Ss
(S) Toluene-d8	101			80.0-120		04/24/2019 18:36	WG1271083	⁴ Cn
(S) 4-Bromofluorobenzene	105			77.0-126		04/24/2019 18:36	WG1271083	⁵ Sr
(S) 1,2-Dichloroethane-d4	93.1			70.0-130		04/24/2019 18:36	WG1271083	⁶ Qc
								⁷ Gl
								⁸ Al
								⁹ Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	346000		2710	20000	1	04/29/2019 17:50	WG1273424

Sample Narrative:

L1091936-05 WG1273424: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	26900		51.9	1000	1	04/24/2019 19:49	WG1271082
Nitrate	U		22.7	100	1	04/24/2019 19:49	WG1271082
Sulfate	28100		77.4	5000	1	04/24/2019 19:49	WG1271082

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	13700		102	1000	1	04/24/2019 23:34	WG1271094

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	4390		75.0	500	5	05/07/2019 00:43	WG1271169
Manganese	787		1.25	25.0	5	05/07/2019 00:43	WG1271169

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	139		31.6	100	1	04/25/2019 15:20	WG1271515
(S) a,a,a-Trifluorotoluene(FID)	111			78.0-120		04/25/2019 15:20	WG1271515

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	8110		2.87	6.78	10	04/26/2019 14:59	WG1271298
Ethane	U		0.296	1.29	1	04/26/2019 13:49	WG1271298
Ethene	158		0.422	1.27	1	04/26/2019 13:49	WG1271298

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	1.91	J JO	1.05	25.0	1	04/24/2019 18:56	WG1271083
Acrylonitrile	U		0.873	5.00	1	04/24/2019 18:56	WG1271083
Benzene	U		0.0896	0.500	1	04/24/2019 18:56	WG1271083
Bromobenzene	U		0.133	0.500	1	04/24/2019 18:56	WG1271083
Bromodichloromethane	U		0.0800	0.500	1	04/24/2019 18:56	WG1271083
Bromochloromethane	U		0.145	0.500	1	04/24/2019 18:56	WG1271083
Bromoform	U		0.186	0.500	1	04/24/2019 18:56	WG1271083
Bromomethane	U	J O	0.157	2.50	1	04/24/2019 18:56	WG1271083
n-Butylbenzene	U		0.143	0.500	1	04/24/2019 18:56	WG1271083
sec-Butylbenzene	U		0.134	0.500	1	04/24/2019 18:56	WG1271083
tert-Butylbenzene	U		0.183	0.500	1	04/24/2019 18:56	WG1271083
Carbon disulfide	U		0.101	0.500	1	04/24/2019 18:56	WG1271083
Carbon tetrachloride	U		0.159	0.500	1	04/24/2019 18:56	WG1271083



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	04/24/2019 18:56	WG1271083
Chlorodibromomethane	U		0.128	0.500	1	04/24/2019 18:56	WG1271083
Chloroethane	U	<u>J0</u>	0.141	2.50	1	04/24/2019 18:56	WG1271083
Chloroform	U		0.0860	0.500	1	04/24/2019 18:56	WG1271083
Chloromethane	U		0.153	1.25	1	04/24/2019 18:56	WG1271083
2-Chlorotoluene	U		0.111	0.500	1	04/24/2019 18:56	WG1271083
4-Chlorotoluene	U		0.0972	0.500	1	04/24/2019 18:56	WG1271083
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/24/2019 18:56	WG1271083
1,2-Dibromoethane	U		0.193	0.500	1	04/24/2019 18:56	WG1271083
Dibromomethane	U		0.117	0.500	1	04/24/2019 18:56	WG1271083
1,2-Dichlorobenzene	U		0.101	0.500	1	04/24/2019 18:56	WG1271083
1,3-Dichlorobenzene	U		0.130	0.500	1	04/24/2019 18:56	WG1271083
1,4-Dichlorobenzene	U		0.121	0.500	1	04/24/2019 18:56	WG1271083
Dichlorodifluoromethane	U		0.127	2.50	1	04/24/2019 18:56	WG1271083
1,1-Dichloroethane	U		0.114	0.500	1	04/24/2019 18:56	WG1271083
1,2-Dichloroethane	U		0.108	0.500	1	04/24/2019 18:56	WG1271083
1,1-Dichloroethene	1.75		0.188	0.500	1	04/24/2019 18:56	WG1271083
cis-1,2-Dichloroethene	322		0.933	5.00	10	04/26/2019 12:43	WG1272362
trans-1,2-Dichloroethene	1.47		0.152	0.500	1	04/24/2019 18:56	WG1271083
1,2-Dichloropropane	U		0.190	0.500	1	04/24/2019 18:56	WG1271083
1,1-Dichloropropene	U		0.128	0.500	1	04/24/2019 18:56	WG1271083
1,3-Dichloropropane	U		0.147	1.00	1	04/24/2019 18:56	WG1271083
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/24/2019 18:56	WG1271083
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/24/2019 18:56	WG1271083
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/24/2019 18:56	WG1271083
2,2-Dichloropropane	U		0.0929	0.500	1	04/24/2019 18:56	WG1271083
Di-isopropyl ether	U		0.0924	0.500	1	04/24/2019 18:56	WG1271083
Ethylbenzene	U		0.158	0.500	1	04/24/2019 18:56	WG1271083
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/24/2019 18:56	WG1271083
2-Hexanone	U		0.757	5.00	1	04/24/2019 18:56	WG1271083
n-Hexane	U		0.305	5.00	1	04/24/2019 18:56	WG1271083
Iodomethane	U		0.377	10.0	1	04/24/2019 18:56	WG1271083
Isopropylbenzene	U		0.126	0.500	1	04/24/2019 18:56	WG1271083
p-Isopropyltoluene	U		0.138	0.500	1	04/24/2019 18:56	WG1271083
2-Butanone (MEK)	U		1.28	5.00	1	04/24/2019 18:56	WG1271083
Methylene Chloride	U		1.07	2.50	1	04/24/2019 18:56	WG1271083
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/24/2019 18:56	WG1271083
Methyl tert-butyl ether	U		0.102	0.500	1	04/24/2019 18:56	WG1271083
Naphthalene	U		0.174	2.50	1	04/24/2019 18:56	WG1271083
n-Propylbenzene	U		0.162	0.500	1	04/24/2019 18:56	WG1271083
Styrene	U		0.117	0.500	1	04/24/2019 18:56	WG1271083
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/24/2019 18:56	WG1271083
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/24/2019 18:56	WG1271083
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 18:56	WG1271083
Tetrachloroethene	U		0.199	0.500	1	04/24/2019 18:56	WG1271083
Toluene	U		0.412	0.500	1	04/24/2019 18:56	WG1271083
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 18:56	WG1271083
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 18:56	WG1271083
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 18:56	WG1271083
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 18:56	WG1271083
Trichloroethene	5.13		0.153	0.500	1	04/24/2019 18:56	WG1271083
Trichlorofluoromethane	U	<u>J0</u>	0.130	2.50	1	04/24/2019 18:56	WG1271083
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 18:56	WG1271083
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 18:56	WG1271083
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 18:56	WG1271083
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 18:56	WG1271083

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

MW147-042319

Collected date/time: 04/23/19 14:00

SAMPLE RESULTS - 05

L1091936

ONE LAB. NATIONWIDE.



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Vinyl acetate	U	J0	0.645	5.00	1	04/24/2019 18:56	WG1271083	¹ Cp
Vinyl chloride	499		1.18	5.00	10	04/26/2019 12:43	WG1272362	² Tc
Xylenes, Total	U	J0	0.316	1.50	1	04/24/2019 18:56	WG1271083	³ Ss
(S) Toluene-d8	100			80.0-120		04/24/2019 18:56	WG1271083	⁴ Cn
(S) Toluene-d8	98.8			80.0-120		04/26/2019 12:43	WG1272362	⁵ Sr
(S) 4-Bromofluorobenzene	105			77.0-126		04/24/2019 18:56	WG1271083	⁶ Qc
(S) 4-Bromofluorobenzene	99.9			77.0-126		04/26/2019 12:43	WG1272362	⁷ Gl
(S) 1,2-Dichloroethane-d4	94.2			70.0-130		04/24/2019 18:56	WG1271083	⁸ Al
(S) 1,2-Dichloroethane-d4	89.2			70.0-130		04/26/2019 12:43	WG1272362	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	04/25/2019 12:32	WG1271515
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	112			78.0-120		04/25/2019 12:32	WG1271515

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
Acetone	U		1.05	25.0	1	04/24/2019 16:36	WG1271083
Acrylonitrile	U		0.873	5.00	1	04/24/2019 16:36	WG1271083
Benzene	U		0.0896	0.500	1	04/24/2019 16:36	WG1271083
Bromobenzene	U		0.133	0.500	1	04/24/2019 16:36	WG1271083
Bromodichloromethane	U		0.0800	0.500	1	04/24/2019 16:36	WG1271083
Bromoform	U		0.145	0.500	1	04/24/2019 16:36	WG1271083
Bromomethane	U	J0	0.157	2.50	1	04/24/2019 16:36	WG1271083
n-Butylbenzene	U		0.143	0.500	1	04/24/2019 16:36	WG1271083
sec-Butylbenzene	U		0.134	0.500	1	04/24/2019 16:36	WG1271083
tert-Butylbenzene	U		0.183	0.500	1	04/24/2019 16:36	WG1271083
Carbon disulfide	U		0.101	0.500	1	04/24/2019 16:36	WG1271083
Carbon tetrachloride	U		0.159	0.500	1	04/24/2019 16:36	WG1271083
Chlorobenzene	U		0.140	0.500	1	04/24/2019 16:36	WG1271083
Chlorodibromomethane	U		0.128	0.500	1	04/24/2019 16:36	WG1271083
Chloroethane	U	J0	0.141	2.50	1	04/24/2019 16:36	WG1271083
Chloroform	U		0.0860	0.500	1	04/24/2019 16:36	WG1271083
Chloromethane	U		0.153	1.25	1	04/24/2019 16:36	WG1271083
2-Chlorotoluene	U		0.111	0.500	1	04/24/2019 16:36	WG1271083
4-Chlorotoluene	U		0.0972	0.500	1	04/24/2019 16:36	WG1271083
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/24/2019 16:36	WG1271083
1,2-Dibromoethane	U		0.193	0.500	1	04/24/2019 16:36	WG1271083
Dibromomethane	U		0.117	0.500	1	04/24/2019 16:36	WG1271083
1,2-Dichlorobenzene	U		0.101	0.500	1	04/24/2019 16:36	WG1271083
1,3-Dichlorobenzene	U		0.130	0.500	1	04/24/2019 16:36	WG1271083
1,4-Dichlorobenzene	U		0.121	0.500	1	04/24/2019 16:36	WG1271083
Dichlorodifluoromethane	U		0.127	2.50	1	04/24/2019 16:36	WG1271083
1,1-Dichloroethane	U		0.114	0.500	1	04/24/2019 16:36	WG1271083
1,2-Dichloroethane	U		0.108	0.500	1	04/24/2019 16:36	WG1271083
1,1-Dichloroethene	U		0.188	0.500	1	04/24/2019 16:36	WG1271083
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/24/2019 16:36	WG1271083
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/24/2019 16:36	WG1271083
1,2-Dichloropropane	U		0.190	0.500	1	04/24/2019 16:36	WG1271083
1,1-Dichloropropene	U		0.128	0.500	1	04/24/2019 16:36	WG1271083
1,3-Dichloropropane	U		0.147	1.00	1	04/24/2019 16:36	WG1271083
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/24/2019 16:36	WG1271083
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/24/2019 16:36	WG1271083
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/24/2019 16:36	WG1271083
2,2-Dichloropropane	U		0.0929	0.500	1	04/24/2019 16:36	WG1271083
Di-isopropyl ether	U		0.0924	0.500	1	04/24/2019 16:36	WG1271083
Ethylbenzene	U		0.158	0.500	1	04/24/2019 16:36	WG1271083
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/24/2019 16:36	WG1271083
2-Hexanone	U		0.757	5.00	1	04/24/2019 16:36	WG1271083
n-Hexane	U		0.305	5.00	1	04/24/2019 16:36	WG1271083
Iodomethane	U		0.377	10.0	1	04/24/2019 16:36	WG1271083
Isopropylbenzene	U		0.126	0.500	1	04/24/2019 16:36	WG1271083
p-Isopropyltoluene	U		0.138	0.500	1	04/24/2019 16:36	WG1271083
2-Butanone (MEK)	U		1.28	5.00	1	04/24/2019 16:36	WG1271083



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	04/24/2019 16:36	WG1271083	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/24/2019 16:36	WG1271083	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	04/24/2019 16:36	WG1271083	³ Ss
Naphthalene	U		0.174	2.50	1	04/24/2019 16:36	WG1271083	
n-Propylbenzene	U		0.162	0.500	1	04/24/2019 16:36	WG1271083	
Styrene	U		0.117	0.500	1	04/24/2019 16:36	WG1271083	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/24/2019 16:36	WG1271083	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/24/2019 16:36	WG1271083	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 16:36	WG1271083	
Tetrachloroethene	U		0.199	0.500	1	04/24/2019 16:36	WG1271083	
Toluene	U		0.412	0.500	1	04/24/2019 16:36	WG1271083	⁶ Qc
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 16:36	WG1271083	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 16:36	WG1271083	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 16:36	WG1271083	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 16:36	WG1271083	
Trichloroethene	U		0.153	0.500	1	04/24/2019 16:36	WG1271083	
Trichlorofluoromethane	U	^{JO}	0.130	2.50	1	04/24/2019 16:36	WG1271083	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 16:36	WG1271083	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 16:36	WG1271083	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 16:36	WG1271083	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 16:36	WG1271083	
Vinyl acetate	U	^{JO}	0.645	5.00	1	04/24/2019 16:36	WG1271083	
Vinyl chloride	U	^{JO}	0.118	0.500	1	04/24/2019 16:36	WG1271083	
Xylenes, Total	U		0.316	1.50	1	04/24/2019 16:36	WG1271083	
(S) Toluene-d8	100			80.0-120		04/24/2019 16:36	WG1271083	
(S) 4-Bromofluorobenzene	105			77.0-126		04/24/2019 16:36	WG1271083	
(S) 1,2-Dichloroethane-d4	92.9			70.0-130		04/24/2019 16:36	WG1271083	

WG1273424

Wet Chemistry by Method 2320 B-2011

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

L1091936-03,04,05

Method Blank (MB)

(MB) R3406609-1 04/29/19 15:19

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Alkalinity	3140	J	2710	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1091051-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1091051-02 04/29/19 15:25 • (DUP) R3406609-3 04/29/19 15:33

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Alkalinity	171000	172000	1	0.927		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

L1091709-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1091709-05 04/29/19 18:19 • (DUP) R3406609-6 04/29/19 18:26

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Alkalinity	1070000	1070000	1	0.269		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3406609-5 04/29/19 16:32

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Alkalinity	100000	102000	102	85.0-115	

Sample Narrative:

LCS: Endpoint pH 4.5

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

ACCOUNT:

PES Environmental, Inc.- WA

PROJECT:

1413.001.05.601

SDG:

L1091936

DATE/TIME:

05/08/19 13:53

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L1091936-03,04,05

Method Blank (MB)

(MB) R3405147-1 04/24/19 16:57

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		51.9	1000
Nitrate	26.3	J	22.7	100
Sulfate	U		77.4	5000

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1091917-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1091917-03 04/24/19 18:23 • (DUP) R3405147-3 04/24/19 18:37

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	8410	8430	1	0.285		15
Nitrate	893	900	1	0.714		15
Sulfate	7530	7540	1	0.0770		15

L1091941-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1091941-04 04/24/19 21:44 • (DUP) R3405147-6 04/24/19 21:59

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	U	0.000	1	0.000		15
Nitrate	U	0.000	1	0.000		15
Sulfate	U	0.000	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3405147-2 04/24/19 17:12

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40200	101	80.0-120	
Nitrate	8000	8290	104	80.0-120	
Sulfate	40000	41100	103	80.0-120	

L1091936-03,04,05

L1091917-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1091917-03 04/24/19 18:23 • (MS) R3405147-4 04/24/19 18:51 • (MSD) R3405147-5 04/24/19 19:06

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Chloride	50000	8410	58800	58300	101	99.7	1	80.0-120			0.943	15
Nitrate	5000	893	5880	5830	99.6	98.7	1	80.0-120			0.777	15
Sulfate	50000	7530	57300	56700	99.5	98.4	1	80.0-120			0.931	15

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1091941-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1091941-04 04/24/19 21:44 • (MS) R3405147-7 04/24/19 22:13

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>
Chloride	50000	U	50700	101	1	80.0-120	
Nitrate	5000	U	5050	101	1	80.0-120	
Sulfate	50000	U	50400	101	1	80.0-120	



L1091936-03,04,05

Method Blank (MB)

(MB) R3405168-1 04/24/19 13:38

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	229	J	102	1000

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1091876-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1091876-03 04/24/19 18:04 • (DUP) R3405168-5 04/24/19 18:24

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
TOC (Total Organic Carbon)	9410	7860	1	18.1		20

L1091936-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1091936-03 04/24/19 22:37 • (DUP) R3405168-8 04/24/19 22:56

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
TOC (Total Organic Carbon)	5970	5780	1	3.10		20

Laboratory Control Sample (LCS)

(LCS) R3405168-2 04/24/19 14:14

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
TOC (Total Organic Carbon)	75000	76900	102	85.0-115	

L1091790-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1091790-03 04/24/19 15:28 • (MS) R3405168-3 04/24/19 15:44 • (MSD) R3405168-4 04/24/19 16:00

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
TOC (Total Organic Carbon)	50000	1580	49600	49500	96.0	95.8	1	80.0-120			0.202	20

L1091908-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1091908-04 04/24/19 19:56 • (MS) R3405168-6 04/24/19 20:12 • (MSD) R3405168-7 04/24/19 20:27

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
TOC (Total Organic Carbon)	50000	1230	52000	52500	101	102	1	80.0-120			0.919	20



L1091936-03,04,05

Method Blank (MB)

(MB) R3408542-1 05/06/19 10:56

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Iron	U		15.0	100
Manganese	U		0.250	5.00

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3408542-2 05/06/19 11:00 • (LCSD) R3408542-3 05/06/19 11:05

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
Iron	500	492	486	98.4	97.2	80.0-120			1.22	20
Manganese	50.0	48.2	49.8	96.4	99.5	80.0-120			3.23	20

L1091790-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1091790-01 05/06/19 11:09 • (MS) R3408542-5 05/06/19 11:18 • (MSD) R3408542-6 05/06/19 11:23

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Iron	500	ND	544	548	96.5	97.4	1	75.0-125			0.780	20
Manganese	50.0	5.40	55.3	54.8	99.9	98.7	1	75.0-125			1.07	20

L1091936-03,04,05,06

Method Blank (MB)

(MB) R3405596-2 04/25/19 09:45

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)	111			78.0-120

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3405596-1 04/25/19 08:57

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	5310	96.5	70.0-124	
(S)-a,a,a-Trifluorotoluene(FID)		103		78.0-120	

L1091936-03,04,05

Method Blank (MB)

(MB) R3405886-1 04/26/19 13:31

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1091915-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1091915-02 04/26/19 13:40 • (DUP) R3405886-2 04/26/19 14:13

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Methane	248	245	1	1.48		20
Ethane	U	0.000	1	0.000		20
Ethene	U	0.000	1	0.000		20

¹⁰Sc

L1091952-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1091952-01 04/26/19 14:46 • (DUP) R3405886-3 04/26/19 15:02

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Methane	ND	0.000	1	0.000		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

¹¹Sc

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

(LCS) R3405886-4 04/26/19 15:04 • (LCSD) R3405886-5 04/26/19 15:10

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
Methane	67.8	75.7	76.9	112	113	85.0-115			1.59	20
Ethane	129	121	119	93.4	92.5	85.0-115			0.991	20
Ethene	127	120	121	94.1	95.5	85.0-115			1.51	20

L1091936-03,04,05,06

Method Blank (MB)

(MB) R3405761-3 04/24/19 10:19

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l	
Acetone	U		1.05	25.0	¹ Cp
Acrylonitrile	U		0.873	5.00	² Tc
Benzene	U		0.0896	0.500	³ Ss
Bromobenzene	U		0.133	0.500	⁴ Cn
Bromodichloromethane	U		0.0800	0.500	⁵ Sr
Bromochloromethane	U		0.145	0.500	⁶ Qc
Bromoform	U		0.186	0.500	⁷ Gl
Bromomethane	U		0.157	2.50	⁸ Al
n-Butylbenzene	U		0.143	0.500	⁹ Sc
Carbon disulfide	U		0.101	0.500	
sec-Butylbenzene	U		0.134	0.500	
Carbon tetrachloride	U		0.159	0.500	
tert-Butylbenzene	U		0.183	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	

L1091936-03,04,05,06

Method Blank (MB)

(MB) R3405761-3 04/24/19 10:19

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	
Hexachloro-1,3-butadiene	0.275	J	0.157	1.00	¹ Cp
2-Hexanone	U		0.757	5.00	² Tc
n-Hexane	U		0.305	5.00	³ Ss
Iodomethane	U		0.377	10.0	⁴ Cn
Ethylbenzene	U		0.158	0.500	⁵ Sr
2-Butanone (MEK)	U		1.28	5.00	⁶ Qc
Methylene Chloride	U		1.07	2.50	⁷ Gl
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	⁸ Al
Isopropylbenzene	U		0.126	0.500	⁹ Sc
Styrene	U		0.117	0.500	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	
p-Isopropyltoluene	U		0.138	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	
1,2,3-Trichlorobenzene	U		0.164	0.500	
1,2,4-Trichlorobenzene	U		0.355	0.500	
Methyl tert-butyl ether	U		0.102	0.500	
1,1,1-Trichloroethane	U		0.0940	0.500	
1,1,2-Trichloroethane	U		0.186	0.500	
Naphthalene	U		0.174	2.50	
Trichloroethene	U		0.153	0.500	
Trichlorofluoromethane	U		0.130	2.50	
1,2,3-Trichloropropane	U		0.247	2.50	
n-Propylbenzene	U		0.162	0.500	
1,2,3-Trimethylbenzene	U		0.0739	0.500	
Vinyl acetate	U		0.645	5.00	
Vinyl chloride	U		0.118	0.500	
Toluene	U		0.412	0.500	
Xylenes, Total	U		0.316	1.50	
1,2,4-Trimethylbenzene	U		0.123	0.500	
1,3,5-Trimethylbenzene	U		0.124	0.500	
(S) Toluene-d8	102		80.0-120		
(S) 4-Bromofluorobenzene	107		77.0-126		
(S) 1,2-Dichloroethane-d4	91.2		70.0-130		



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

(LCS) R3405761-1 04/24/19 09:19 • (LCSD) R3405761-2 04/24/19 09:39

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 %
Acetone	125	156	148	124	119	19.0-160			4.69	27
Acrylonitrile	125	150	158	120	126	55.0-149			4.93	20
Bromobenzene	25.0	23.2	23.5	92.9	94.2	73.0-121			1.38	20
Bromodichloromethane	25.0	22.3	22.2	89.3	89.0	75.0-120			0.350	20
Bromoform	25.0	23.7	23.6	94.9	94.5	76.0-122			0.414	20
Bromomethane	25.0	27.4	26.8	110	107	68.0-132			2.18	20
Carbon disulfide	25.0	17.9	17.6	71.5	70.3	10.0-160			1.67	25
Carbon tetrachloride	25.0	27.9	28.1	111	113	61.0-128			1.03	20
Chlorobenzene	25.0	23.9	23.7	95.8	94.7	80.0-121			1.19	20
Chlorodibromomethane	25.0	24.3	23.9	97.1	95.6	77.0-125			1.64	20
Chloroethane	25.0	16.6	16.5	66.5	66.1	47.0-150			0.641	20
Chloroform	25.0	21.9	21.9	87.7	87.7	73.0-120			0.0865	20
Chloromethane	25.0	25.8	26.7	103	107	41.0-142			3.31	20
2-Chlorotoluene	25.0	22.1	23.1	88.3	92.4	76.0-123			4.55	20
4-Chlorotoluene	25.0	22.5	23.3	90.2	93.0	75.0-122			3.15	20
1,2-Dibromo-3-Chloropropane	25.0	26.5	28.6	106	114	58.0-134			7.78	20
1,2-Dibromoethane	25.0	23.7	23.5	94.9	94.0	80.0-122			1.05	20
Dibromomethane	25.0	22.8	22.7	91.2	90.7	80.0-120			0.460	20
1,2-Dichlorobenzene	25.0	23.0	23.4	91.9	93.7	79.0-121			1.90	20
1,3-Dichlorobenzene	25.0	22.6	23.1	90.4	92.5	79.0-120			2.30	20
1,4-Dichlorobenzene	25.0	22.0	22.0	88.0	87.9	79.0-120			0.0272	20
Dichlorodifluoromethane	25.0	25.9	25.8	104	103	51.0-149			0.138	20
1,1-Dichloroethane	25.0	24.4	24.7	97.4	98.8	70.0-126			1.36	20
1,2-Dichloroethane	25.0	20.9	21.0	83.4	83.9	70.0-128			0.549	20
1,1-Dichloroethene	25.0	24.6	24.4	98.3	97.6	71.0-124			0.735	20
cis-1,2-Dichloroethene	25.0	24.0	23.7	95.9	94.7	73.0-120			1.21	20
Benzene	25.0	25.9	25.8	104	103	70.0-123			0.330	20
trans-1,2-Dichloroethene	25.0	24.2	24.7	96.8	98.9	73.0-120			2.14	20
1,2-Dichloropropane	25.0	26.3	26.3	105	105	77.0-125			0.163	20
1,1-Dichloropropene	25.0	24.3	24.2	97.0	96.7	74.0-126			0.352	20
1,3-Dichloropropane	25.0	25.1	25.0	101	99.9	80.0-120			0.653	20
cis-1,3-Dichloropropene	25.0	23.5	23.1	93.8	92.5	80.0-123			1.45	20
trans-1,3-Dichloropropene	25.0	22.6	22.5	90.5	89.9	78.0-124			0.668	20
trans-1,4-Dichloro-2-butene	25.0	20.8	21.7	83.3	86.9	33.0-144			4.23	20
2,2-Dichloropropane	25.0	25.9	25.9	104	104	58.0-130			0.0126	20
n-Butylbenzene	25.0	21.5	21.8	85.9	87.4	73.0-125			1.72	20
Di-isopropyl ether	25.0	27.9	28.3	111	113	58.0-138			1.53	20
sec-Butylbenzene	25.0	22.4	23.0	89.5	91.9	75.0-125			2.67	20
tert-Butylbenzene	25.0	23.1	24.1	92.3	96.5	76.0-124			4.41	20

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



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

(LCS) R3405761-1 04/24/19 09:19 • (LCSD) R3405761-2 04/24/19 09:39

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 %
Hexachloro-1,3-butadiene	25.0	27.6	29.3	110	117	54.0-138			6.19	20
2-Hexanone	125	146	148	117	119	67.0-149			1.62	20
n-Hexane	25.0	26.0	24.9	104	99.4	57.0-133			4.59	20
Iodomethane	125	133	133	106	106	33.0-147			0.179	26
2-Butanone (MEK)	125	155	160	124	128	44.0-160			3.27	20
Methylene Chloride	25.0	24.5	25.0	98.1	100	67.0-120			2.09	20
4-Methyl-2-pentanone (MIBK)	125	143	145	115	116	68.0-142			1.19	20
Styrene	25.0	27.4	26.7	110	107	73.0-130			2.64	20
1,1,2-Tetrachloroethane	25.0	24.1	24.1	96.3	96.5	75.0-125			0.203	20
1,1,2,2-Tetrachloroethane	25.0	20.9	21.7	83.7	87.0	65.0-130			3.84	20
1,1,2-Trichlorotrifluoroethane	25.0	22.8	22.6	91.1	90.6	69.0-132			0.600	20
Tetrachloroethene	25.0	25.2	24.6	101	98.6	72.0-132			2.13	20
1,2,3-Trichlorobenzene	25.0	23.4	25.1	93.7	100	50.0-138			6.79	20
1,2,4-Trichlorobenzene	25.0	23.9	25.3	95.5	101	57.0-137			6.02	20
1,1,1-Trichloroethane	25.0	23.6	23.6	94.3	94.3	73.0-124			0.0116	20
1,1,2-Trichloroethane	25.0	23.1	22.9	92.6	91.4	80.0-120			1.26	20
Trichloroethene	25.0	26.1	25.9	104	104	78.0-124			0.572	20
Trichlorofluoromethane	25.0	16.0	15.8	64.0	63.3	59.0-147			1.09	20
1,2,3-Trichloropropane	25.0	20.6	21.9	82.6	87.4	73.0-130			5.66	20
1,2,3-Trimethylbenzene	25.0	21.6	22.1	86.6	88.6	77.0-120			2.31	20
Vinyl acetate	125	72.4	73.4	57.9	58.7	11.0-160			1.37	20
Vinyl chloride	25.0	18.3	18.2	73.2	72.7	67.0-131			0.636	20
Xylenes, Total	75.0	73.5	73.4	98.0	97.9	79.0-123			0.136	20
Ethylbenzene	25.0	24.2	24.2	96.8	96.9	79.0-123			0.119	20
Isopropylbenzene	25.0	25.4	25.3	102	101	76.0-127			0.180	20
p-Isopropyltoluene	25.0	22.5	23.2	90.1	92.7	76.0-125			2.85	20
Methyl tert-butyl ether	25.0	23.5	23.7	94.1	94.8	68.0-125			0.771	20
Naphthalene	25.0	23.2	24.8	92.7	99.1	54.0-135			6.76	20
n-Propylbenzene	25.0	22.1	22.4	88.4	89.7	77.0-124			1.48	20
Toluene	25.0	25.8	25.4	103	102	79.0-120			1.62	20
1,2,4-Trimethylbenzene	25.0	22.1	22.5	88.5	90.0	76.0-121			1.68	20
1,3,5-Trimethylbenzene	25.0	22.2	23.0	88.7	92.0	76.0-122			3.67	20
(S) Toluene-d8				101	100	80.0-120				
(S) 4-Bromofluorobenzene				107	106	77.0-126				
(S) 1,2-Dichloroethane-d4				92.9	91.6	70.0-130				

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



Method Blank (MB)

(MB) R3406794-3 04/25/19 10:03

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	
Acetone	U		1.05	25.0	¹ Cp
Acrylonitrile	U		0.873	5.00	² Tc
Benzene	U		0.0896	0.500	³ Ss
Bromobenzene	U		0.133	0.500	⁴ Cn
Bromodichloromethane	U		0.0800	0.500	⁵ Sr
Bromochloromethane	U		0.145	0.500	⁶ Qc
Bromoform	U		0.186	0.500	⁷ Gl
Bromomethane	U		0.157	2.50	⁸ Al
n-Butylbenzene	U		0.143	0.500	⁹ Sc
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	



Method Blank (MB)

(MB) R3406794-3 04/25/19 10:03

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	
Ethylbenzene	U		0.158	0.500	¹ Cp
Hexachloro-1,3-butadiene	0.239	J	0.157	1.00	² Tc
2-Hexanone	U		0.757	5.00	³ Ss
n-Hexane	U		0.305	5.00	⁴ Cn
Iodomethane	U		0.377	10.0	⁵ Sr
Isopropylbenzene	U		0.126	0.500	⁶ Qc
p-Isopropyltoluene	U		0.138	0.500	⁷ Gl
2-Butanone (MEK)	U		1.28	5.00	⁸ Al
Methylene Chloride	U		1.07	2.50	⁹ Sc
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	
(S) Toluene-d8	101			80.0-120	
(S) 4-Bromofluorobenzene	105			77.0-126	
(S) 1,2-Dichloroethane-d4	94.7			70.0-130	



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

(LCS) R3406794-1 04/25/19 09:03 • (LCSD) R3406794-2 04/25/19 09:23

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 %
Acetone	125	205	144	164	115	19.0-160	J4	J3	34.8	27
Acrylonitrile	125	160	156	128	125	55.0-149			2.36	20
Benzene	25.0	26.0	26.1	104	104	70.0-123			0.383	20
Bromobenzene	25.0	23.4	23.6	93.5	94.5	73.0-121			1.10	20
Bromodichloromethane	25.0	22.3	22.3	89.3	89.2	75.0-120			0.142	20
Bromoform	25.0	23.5	23.3	94.2	93.0	76.0-122			1.20	20
Bromomethane	25.0	26.4	27.0	106	108	68.0-132			2.26	20
n-Butylbenzene	25.0	17.7	17.6	70.8	70.5	10.0-160			0.433	25
sec-Butylbenzene	25.0	23.2	22.8	92.7	91.2	73.0-125			1.67	20
tert-Butylbenzene	25.0	23.9	23.3	95.6	93.1	75.0-125			2.69	20
Carbon disulfide	25.0	24.5	24.0	98.0	96.1	76.0-124			1.94	20
Carbon tetrachloride	25.0	28.4	31.0	113	124	61.0-128			8.82	20
Chlorobenzene	25.0	23.9	23.9	95.5	95.5	68.0-126			0.0359	20
Chlorodibromomethane	25.0	23.5	24.0	94.2	96.0	77.0-125			0.523	20
Chloroethane	25.0	15.0	17.2	60.1	69.0	47.0-150			13.7	20
Chlorofrom	25.0	22.0	21.9	87.8	87.8	73.0-120			0.0352	20
Chloromethane	25.0	26.3	26.2	105	105	41.0-142			0.338	20
2-Chlorotoluene	25.0	23.1	22.8	92.6	91.0	76.0-123			1.66	20
4-Chlorotoluene	25.0	23.4	23.2	93.5	93.0	75.0-122			0.522	20
1,2-Dibromo-3-Chloropropane	25.0	28.4	27.7	114	111	58.0-134			2.76	20
1,2-Dibromoethane	25.0	23.3	23.7	93.0	94.8	80.0-122			1.90	20
Dibromomethane	25.0	22.7	22.5	90.7	90.0	80.0-120			0.716	20
1,2-Dichlorobenzene	25.0	23.9	23.4	95.5	93.5	79.0-121			2.08	20
1,3-Dichlorobenzene	25.0	23.5	23.2	94.0	93.0	79.0-120			1.05	20
1,4-Dichlorobenzene	25.0	22.7	22.5	91.0	89.9	79.0-120			1.15	20
Dichlorodifluoromethane	25.0	26.3	26.2	105	105	51.0-149			0.238	20
1,1-Dichloroethane	25.0	24.8	24.6	99.4	98.3	70.0-126			1.12	20
1,2-Dichloroethane	25.0	20.8	20.8	83.1	83.1	70.0-128			0.0641	20
1,1-Dichloroethene	25.0	25.0	25.4	100	102	71.0-124			1.62	20
cis-1,2-Dichloroethene	25.0	23.9	23.7	95.7	94.7	73.0-120			1.11	20
trans-1,2-Dichloroethene	25.0	24.9	24.9	99.6	99.4	73.0-120			0.115	20
1,2-Dichloropropane	25.0	26.5	26.5	106	106	77.0-125			0.267	20
1,1-Dichloropropene	25.0	24.9	24.8	99.4	99.1	74.0-126			0.298	20
1,3-Dichloropropane	25.0	24.6	25.1	98.6	100	80.0-120			1.86	20
cis-1,3-Dichloropropene	25.0	24.0	24.2	96.2	96.7	80.0-123			0.513	20
trans-1,3-Dichloropropene	25.0	23.3	23.5	93.2	94.1	78.0-124			0.936	20
trans-1,4-Dichloro-2-butene	25.0	20.7	19.7	83.0	78.6	33.0-144			5.42	20
2,2-Dichloropropane	25.0	32.0	31.4	128	126	58.0-130			2.05	20
Di-isopropyl ether	25.0	27.7	27.6	111	110	58.0-138			0.601	20

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) R3406794-1 04/25/19 09:03 • (LCSD) R3406794-2 04/25/19 09:23

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 %
Ethylbenzene	25.0	24.4	24.7	97.5	98.9	79.0-123			1.46	20
Hexachloro-1,3-butadiene	25.0	31.2	30.4	125	122	54.0-138			2.57	20
2-Hexanone	125	147	146	117	117	67.0-149			0.700	20
n-Hexane	25.0	29.2	28.6	117	114	57.0-133			2.29	20
Iodomethane	125	134	128	107	102	33.0-147			4.64	26
Isopropylbenzene	25.0	25.6	26.1	103	104	76.0-127			1.66	20
p-Isopropyltoluene	25.0	24.2	23.8	96.8	95.1	76.0-125			1.85	20
2-Butanone (MEK)	125	165	156	132	125	44.0-160			5.34	20
Methylene Chloride	25.0	24.7	24.5	98.8	98.1	67.0-120			0.726	20
4-Methyl-2-pentanone (MIBK)	125	143	142	114	114	68.0-142			0.369	20
Methyl tert-butyl ether	25.0	23.7	23.4	94.7	93.6	68.0-125			1.16	20
Naphthalene	25.0	25.1	24.5	100	98.1	54.0-135			2.40	20
n-Propylbenzene	25.0	23.0	23.0	92.1	91.9	77.0-124			0.261	20
Styrene	25.0	26.6	27.4	106	110	73.0-130			3.12	20
1,1,1,2-Tetrachloroethane	25.0	24.1	24.0	96.2	96.2	75.0-125			0.0553	20
1,1,2,2-Tetrachloroethane	25.0	22.8	22.7	91.3	90.8	65.0-130			0.553	20
1,1,2-Trichlorotrifluoroethane	25.0	23.4	24.1	93.6	96.5	69.0-132			3.14	20
Tetrachloroethene	25.0	25.8	25.8	103	103	72.0-132			0.287	20
Toluene	25.0	25.9	26.1	103	104	79.0-120			0.981	20
1,2,3-Trichlorobenzene	25.0	25.7	24.4	103	97.5	50.0-138			5.36	20
1,2,4-Trichlorobenzene	25.0	26.6	25.2	107	101	57.0-137			5.53	20
1,1,1-Trichloroethane	25.0	23.7	23.8	94.9	95.3	73.0-124			0.433	20
1,1,2-Trichloroethane	25.0	22.8	22.6	91.3	90.4	80.0-120			0.971	20
Trichloroethene	25.0	25.1	25.2	100	101	78.0-124			0.572	20
Trichlorofluoromethane	25.0	15.2	16.5	60.9	65.9	59.0-147			7.93	20
1,2,3-Trichloropropane	25.0	21.1	20.9	84.4	83.5	73.0-130			1.11	20
1,2,4-Trimethylbenzene	25.0	22.8	22.6	91.2	90.5	76.0-121			0.774	20
1,2,3-Trimethylbenzene	25.0	22.4	21.8	89.8	87.2	77.0-120			2.96	20
1,3,5-Trimethylbenzene	25.0	23.4	22.6	93.5	90.5	76.0-122			3.16	20
Vinyl acetate	125	119	120	95.4	95.7	11.0-160			0.361	20
Vinyl chloride	25.0	17.8	17.9	71.3	71.7	67.0-131			0.499	20
Xylenes, Total	75.0	74.9	75.0	99.9	100	79.0-123			0.133	20
(S) Toluene-d8				101	100	80.0-120				
(S) 4-Bromofluorobenzene				105	107	77.0-126				
(S) 1,2-Dichloroethane-d4				92.7	99.9	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) R3405838-4 04/26/19 11:26

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
cis-1,2-Dichloroethene	U		0.0933	0.500
Vinyl chloride	U		0.118	0.500
(S) Toluene-d8	98.0			80.0-120
(S) 4-Bromofluorobenzene	100			77.0-126
(S) 1,2-Dichloroethane-d4	90.2			70.0-130

¹Cp²Tc³Ss⁴Cn⁵Sr

Laboratory Control Sample (LCS)

(LCS) R3405838-1 04/26/19 09:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
cis-1,2-Dichloroethene	25.0	26.4	105	73.0-120	
Vinyl chloride	25.0	27.1	108	67.0-131	
(S) Toluene-d8		95.5		80.0-120	
(S) 4-Bromofluorobenzene		101		77.0-126	
(S) 1,2-Dichloroethane-d4		89.3		70.0-130	

⁶Qc⁷Gl⁸Al⁹Sc



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.	¹ Cp
ND	Not detected at the Reporting Limit (or MDL where applicable).	² Tc
RDL	Reported Detection Limit.	³ Ss
Rec.	Recovery.	⁴ Cn
RPD	Relative Percent Difference.	⁵ Sr
SDG	Sample Delivery Group.	⁶ Qc
(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.	⁷ GI
U	Not detected at the Reporting Limit (or MDL where applicable).	⁸ AI
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	⁹ SC
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

J	The identification of the analyte is acceptable; the reported value is an estimate.
JO	JO: The identification of the analyte is acceptable, but the reported concentration is an estimate. The calibration met 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.



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
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia ¹	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky ^{1,6}	90010
Kentucky ²	16
Louisiana	AI30792
Louisiana ¹	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LA000356
South Carolina	84004
South Dakota	n/a
Tennessee ^{1,4}	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

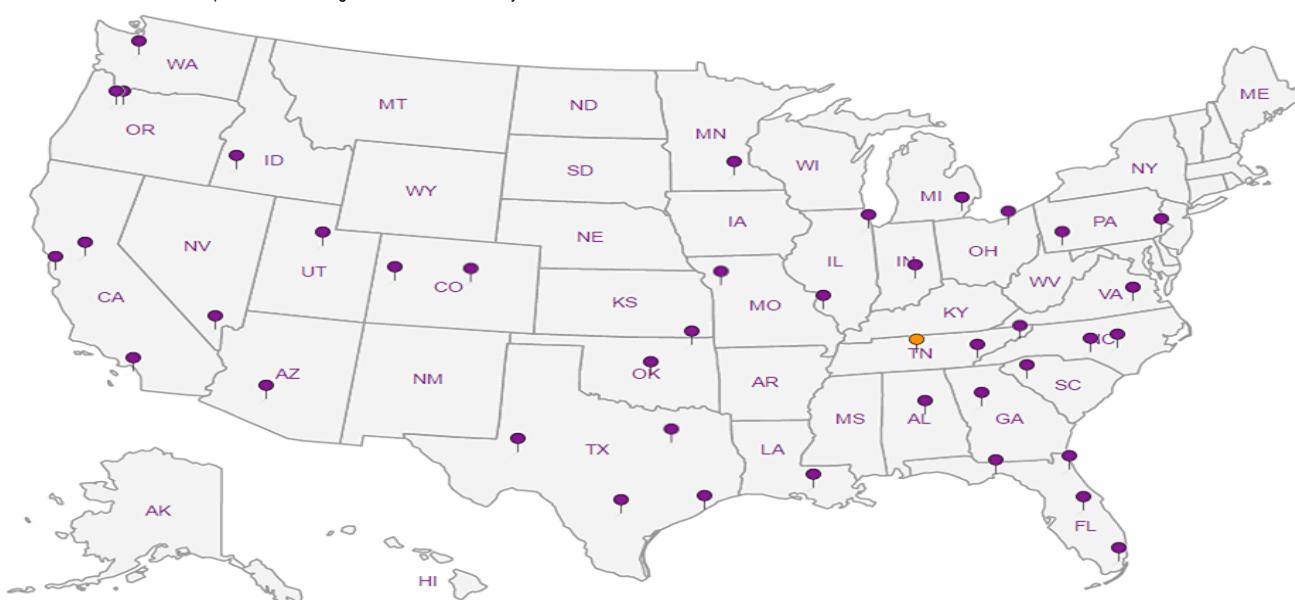
A2LA – ISO 17025	1461.01
A2LA – ISO 17025 ⁵	1461.02
Canada	1461.01
EPA-Crypto	TN00003

AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

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.



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

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Project Description: American Linen

Phone: 206-529-3980
Fax: 206-529-3985

Collected by (print):
K. Zeggs / B. Hecht

Collected by (signature):
K. Zeggs / B. Hecht

Immediately Packed on Ice N Y X

Sample ID

Comp/Grab

Matrix *

Depth

Date

Time

No. of Cntrs

MW103-042219

Grab

GW

108

4-22-19

1505

3

MW111-042219

Grab

GW

75

4-22-19

1505

3

MW104-042319

Grab

GW

75

4-23-19

0835

1

MW105-042319

Grab

GW

135

4-23-19

1035

1

MW147-042319

Grab

GW

75

4-23-19

1400

1

Trip BUNK-042319

—

GW

—

—

—

1

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

Remarks:

Tier 2 QA/QC for all

Samples returned via:
UPS FedEx Courier

Tracking # 4826 1086 1910

Received by: (Signature)

Trip Blank Received Yes/No

HCl / MeOH

TBR

pH Temp

Flow Other

Temp: °C Bottles Received:

0.9±0.04ppm 39

Date: Time:

4/24/19 0845

Hold:

Condition: NCF / OK

Relinquished by : (Signature)

Relinquished by : (Signature)

Relinquished by : (Signature)

Date: 04-23-19 Time: 1700

Date: Time:

Date: Time:

Received by: (Signature)

Received for lab by: (Signature)

Analysis / Container / Preservative

(2) Q

KV1K@PESENV.COM
TEAD@PESENV.COM

KSPRINGS@PESENV.COM

Chain of Custody Page / of

Pace Analytical®
National Center for Testing & Innovation

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

L# L1091936

T B103

Acctnum: PESENVSWA

Template: T143845

Prelogin: P701221

TSR: 110 - Brian Ford

PB: 70 4-1-19

Shipped Via: FedEx Ground

Remarks Sample # (lab only)

-01

-02

-03

-04

-05

-06

RAD SCREEN: <0.5 mR/hr

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

If preservation required by Login: Date/Time

Brian Ford

From: Kim Vik <KVik@pesenv.com>
Sent: Wednesday, April 24, 2019 11:51 AM
To: Brian Ford
Cc: Bill Haldeman; Karsten Springstead
Subject: American Linen - Groundwater Samples - COC - CORRECTION
Attachments: COC_20190424.pdf

Importance: High

Hi Brian,
I was reviewing the COC for the samples that were shipped to you yesterday (see attached) and I need to make some corrections. They are shown on the mark up attached, but will write them here too:

Sample MW-155-042319 should be analyzed for VOCs and gasoline only
Sample MW103-042219 should be analyzed for VOCs only
Sample MW111-042219 should be analyzed for VOCs only
Sample MW104-042319 should also be analyzed for gasoline (add that analysis)
Sample MW105-042319 should also be analyzed for gasoline (add that analysis)
Sample MW147-042319 should also be analyzed for gasoline (add that analysis)

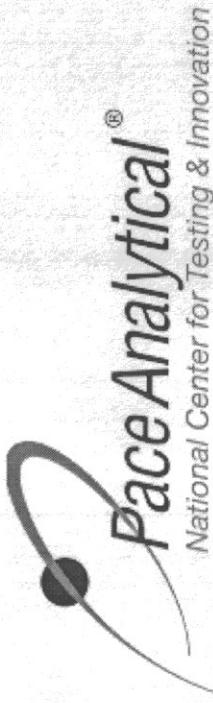
Let me know if you have any questions.

Thanks!

Kim Vik, L.G.
Senior Geologist

PES Environmental, Inc.
1215 Fourth Avenue, Suite 1350
Seattle, Washington 98161-1012
kvik@pesenv.com

Office: (206) 529-3980, Ext. 110



Login #: L1091936	Client: PESENVSWA	Date: 4/24/19	Evaluated by: Troy Dunlap
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Non-Conformance (check applicable items)

Sample Integrity	Chain of Custody Clarification	If Broken Container:
Parameter(s) past holding time	X Login Clarification Needed	Insufficient packing material around container
Temperature not in range	Chain of custody is incomplete	Insufficient packing material inside cooler
Improper container type	Please specify Metals requested.	Improper handling by carrier (FedEx / UPS / Courier
pH not in range.	Please specify TCLP requested.	Sample was frozen
Insufficient sample volume.	Received additional samples not listed on coc.	Container lid not intact
Sample is biphasic.	Sample ids on containers do not match ids on coc	Received by:
Vials received with headspace.	Trip Blank not received.	Date/Time:
Broken container	Client did not "X" analysis.	Temp./Cont. Rec./pH:
Broken container:	Chain of Custody is missing	Carrier:
Sufficient sample remains		Tracking#

Login Comments: For ID MW103 and MW111 the client marked all analysis but only sent three 40ml-HCL vials.

Client informed by:	Call	Email X	Voice Mail	Date:04/24/19	Time:1220
TSR Initials:bjf	Client Contact: Kim Vik				

Login Instructions:

Log MW103 and MW111 for V8260LLC only.
Add NWTPHGX to MW104, MW105, MW147.



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	1.66	J	J J0 J3 J4	1.05	25.0	1	04/25/2019 16:48	WG1271705
Acrylonitrile	U			0.873	5.00	1	04/25/2019 16:48	WG1271705
Benzene	U			0.0896	0.500	1	04/25/2019 16:48	WG1271705
Bromobenzene	U			0.133	0.500	1	04/25/2019 16:48	WG1271705
Bromodichloromethane	U			0.0800	0.500	1	04/25/2019 16:48	WG1271705
Bromoform	U			0.145	0.500	1	04/25/2019 16:48	WG1271705
Bromomethane	U	UJ	J0	0.157	2.50	1	04/25/2019 16:48	WG1271705
n-Butylbenzene	U			0.143	0.500	1	04/25/2019 16:48	WG1271705
sec-Butylbenzene	U			0.134	0.500	1	04/25/2019 16:48	WG1271705
tert-Butylbenzene	U			0.183	0.500	1	04/25/2019 16:48	WG1271705
Carbon disulfide	U			0.101	0.500	1	04/25/2019 16:48	WG1271705
Carbon tetrachloride	U			0.159	0.500	1	04/25/2019 16:48	WG1271705
Chlorobenzene	U			0.140	0.500	1	04/25/2019 16:48	WG1271705
Chlorodibromomethane	U			0.128	0.500	1	04/25/2019 16:48	WG1271705
Chloroethane	U	UJ	J0	0.141	2.50	1	04/25/2019 16:48	WG1271705
Chloroform	U			0.0860	0.500	1	04/25/2019 16:48	WG1271705
Chloromethane	U			0.153	1.25	1	04/25/2019 16:48	WG1271705
2-Chlorotoluene	U			0.111	0.500	1	04/25/2019 16:48	WG1271705
4-Chlorotoluene	U			0.0972	0.500	1	04/25/2019 16:48	WG1271705
1,2-Dibromo-3-Chloropropane	U			0.325	2.50	1	04/25/2019 16:48	WG1271705
1,2-Dibromoethane	U			0.193	0.500	1	04/25/2019 16:48	WG1271705
Dibromomethane	U			0.117	0.500	1	04/25/2019 16:48	WG1271705
1,2-Dichlorobenzene	U			0.101	0.500	1	04/25/2019 16:48	WG1271705
1,3-Dichlorobenzene	U			0.130	0.500	1	04/25/2019 16:48	WG1271705
1,4-Dichlorobenzene	U			0.121	0.500	1	04/25/2019 16:48	WG1271705
Dichlorodifluoromethane	U			0.127	2.50	1	04/25/2019 16:48	WG1271705
1,1-Dichloroethane	U			0.114	0.500	1	04/25/2019 16:48	WG1271705
1,2-Dichloroethane	U			0.108	0.500	1	04/25/2019 16:48	WG1271705
1,1-Dichloroethene	1.22			0.188	0.500	1	04/25/2019 16:48	WG1271705
cis-1,2-Dichloroethene	88.0			0.0933	0.500	1	04/25/2019 16:48	WG1271705
trans-1,2-Dichloroethene	0.209	J	J	0.152	0.500	1	04/25/2019 16:48	WG1271705
1,2-Dichloropropane	U			0.190	0.500	1	04/25/2019 16:48	WG1271705
1,1-Dichloropropene	U			0.128	0.500	1	04/25/2019 16:48	WG1271705
1,3-Dichloropropane	U			0.147	1.00	1	04/25/2019 16:48	WG1271705
cis-1,3-Dichloropropene	U			0.0976	0.500	1	04/25/2019 16:48	WG1271705
trans-1,3-Dichloropropene	U			0.222	0.500	1	04/25/2019 16:48	WG1271705
trans-1,4-Dichloro-2-butene	U			0.257	5.00	1	04/25/2019 16:48	WG1271705
2,2-Dichloropropane	U			0.0929	0.500	1	04/25/2019 16:48	WG1271705
Di-isopropyl ether	U			0.0924	0.500	1	04/25/2019 16:48	WG1271705
Ethylbenzene	U			0.158	0.500	1	04/25/2019 16:48	WG1271705
Hexachloro-1,3-butadiene	U			0.157	1.00	1	04/25/2019 16:48	WG1271705
2-Hexanone	U			0.757	5.00	1	04/25/2019 16:48	WG1271705
n-Hexane	U			0.305	5.00	1	04/25/2019 16:48	WG1271705
Iodomethane	U			0.377	10.0	1	04/25/2019 16:48	WG1271705
Isopropylbenzene	U			0.126	0.500	1	04/25/2019 16:48	WG1271705
p-Isopropyltoluene	U			0.138	0.500	1	04/25/2019 16:48	WG1271705
2-Butanone (MEK)	U			1.28	5.00	1	04/25/2019 16:48	WG1271705
Methylene Chloride	U			1.07	2.50	1	04/25/2019 16:48	WG1271705
4-Methyl-2-pentanone (MIBK)	U			0.823	5.00	1	04/25/2019 16:48	WG1271705
Methyl tert-butyl ether	U			0.102	0.500	1	04/25/2019 16:48	WG1271705
Naphthalene	U			0.174	2.50	1	04/25/2019 16:48	WG1271705
n-Propylbenzene	U			0.162	0.500	1	04/25/2019 16:48	WG1271705
Styrene	U			0.117	0.500	1	04/25/2019 16:48	WG1271705
1,1,2-Tetrachloroethane	U			0.120	0.500	1	04/25/2019 16:48	WG1271705
1,1,2,2-Tetrachloroethane	U			0.130	0.500	1	04/25/2019 16:48	WG1271705

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch		
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 16:48	WG1271705	¹ Cp	
Tetrachloroethene	U		0.199	0.500	1	04/25/2019 16:48	WG1271705	² Tc	
Toluene	U		0.412	0.500	1	04/25/2019 16:48	WG1271705	³ Ss	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 16:48	WG1271705		
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 16:48	WG1271705		
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 16:48	WG1271705		
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 16:48	WG1271705		
Trichloroethene	3.09		0.153	0.500	1	04/25/2019 16:48	WG1271705		
Trichlorofluoromethane	U	UJ	JO	0.130	2.50	1	04/25/2019 16:48	WG1271705	⁵ Sr
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 16:48	WG1271705		
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 16:48	WG1271705	⁶ Qc	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 16:48	WG1271705		
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 16:48	WG1271705		
Vinyl acetate	U		0.645	5.00	1	04/25/2019 16:48	WG1271705	⁷ GI	
Vinyl chloride	32.3	J	JO	0.118	0.500	1	04/25/2019 16:48	WG1271705	
Xylenes, Total	U		0.316	1.50	1	04/25/2019 16:48	WG1271705	⁸ AI	
(S) Toluene-d8	100			80.0-120		04/25/2019 16:48	WG1271705		
(S) 4-Bromofluorobenzene	105			77.0-126		04/25/2019 16:48	WG1271705		
(S) 1,2-Dichloroethane-d4	91.6			70.0-130		04/25/2019 16:48	WG1271705	⁹ SC	



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

Analyte	Result ug/l	Qualifier <u>J J0 J3 J4</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	Category
Acetone	1.17	J	<u>J J0 J3 J4</u>	1.05	25.0	1	04/25/2019 17:08	<u>WG1271705</u>
Acrylonitrile	U			0.873	5.00	1	04/25/2019 17:08	<u>WG1271705</u>
Benzene	U			0.0896	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
Bromobenzene	U			0.133	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
Bromodichloromethane	U			0.0800	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
Bromoform	U			0.145	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
Bromomethane	U	UJ	<u>J0</u>	0.157	2.50	1	04/25/2019 17:08	<u>WG1271705</u>
n-Butylbenzene	U			0.143	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
sec-Butylbenzene	U			0.134	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
tert-Butylbenzene	U			0.183	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
Carbon disulfide	U			0.101	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
Carbon tetrachloride	U			0.159	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
Chlorobenzene	U			0.140	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
Chlorodibromomethane	U			0.128	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
Chloroethane	0.255	J	<u>J J0</u>	0.141	2.50	1	04/25/2019 17:08	<u>WG1271705</u>
Chloroform	U			0.0860	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
Chloromethane	U			0.153	1.25	1	04/25/2019 17:08	<u>WG1271705</u>
2-Chlorotoluene	U			0.111	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
4-Chlorotoluene	U			0.0972	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
1,2-Dibromo-3-Chloropropane	U			0.325	2.50	1	04/25/2019 17:08	<u>WG1271705</u>
1,2-Dibromoethane	U			0.193	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
Dibromomethane	U			0.117	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
1,2-Dichlorobenzene	U			0.101	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
1,3-Dichlorobenzene	U			0.130	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
1,4-Dichlorobenzene	U			0.121	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
Dichlorodifluoromethane	U			0.127	2.50	1	04/25/2019 17:08	<u>WG1271705</u>
1,1-Dichloroethane	U			0.114	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
1,2-Dichloroethane	U			0.108	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
1,1-Dichloroethene	U			0.188	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
cis-1,2-Dichloroethene	3.18			0.0933	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
trans-1,2-Dichloroethene	U			0.152	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
1,2-Dichloropropane	U			0.190	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
1,1-Dichloropropene	U			0.128	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
1,3-Dichloropropane	U			0.147	1.00	1	04/25/2019 17:08	<u>WG1271705</u>
cis-1,3-Dichloropropene	U			0.0976	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
trans-1,3-Dichloropropene	U			0.222	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
trans-1,4-Dichloro-2-butene	U			0.257	5.00	1	04/25/2019 17:08	<u>WG1271705</u>
2,2-Dichloropropane	U			0.0929	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
Di-isopropyl ether	U			0.0924	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
Ethylbenzene	U			0.158	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
Hexachloro-1,3-butadiene	U			0.157	1.00	1	04/25/2019 17:08	<u>WG1271705</u>
2-Hexanone	U			0.757	5.00	1	04/25/2019 17:08	<u>WG1271705</u>
n-Hexane	U			0.305	5.00	1	04/25/2019 17:08	<u>WG1271705</u>
Iodomethane	U			0.377	10.0	1	04/25/2019 17:08	<u>WG1271705</u>
Isopropylbenzene	U			0.126	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
p-Isopropyltoluene	U			0.138	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
2-Butanone (MEK)	U			1.28	5.00	1	04/25/2019 17:08	<u>WG1271705</u>
Methylene Chloride	U			1.07	2.50	1	04/25/2019 17:08	<u>WG1271705</u>
4-Methyl-2-pentanone (MIBK)	U			0.823	5.00	1	04/25/2019 17:08	<u>WG1271705</u>
Methyl tert-butyl ether	U			0.102	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
Naphthalene	U			0.174	2.50	1	04/25/2019 17:08	<u>WG1271705</u>
n-Propylbenzene	U			0.162	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
Styrene	U			0.117	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
1,1,2-Tetrachloroethane	U			0.120	0.500	1	04/25/2019 17:08	<u>WG1271705</u>
1,1,2,2-Tetrachloroethane	U			0.130	0.500	1	04/25/2019 17:08	<u>WG1271705</u>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch		
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 17:08	WG1271705	¹ Cp	
Tetrachloroethene	U		0.199	0.500	1	04/25/2019 17:08	WG1271705	² Tc	
Toluene	U		0.412	0.500	1	04/25/2019 17:08	WG1271705	³ Ss	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 17:08	WG1271705		
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 17:08	WG1271705		
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 17:08	WG1271705		
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 17:08	WG1271705		
Trichloroethene	U		0.153	0.500	1	04/25/2019 17:08	WG1271705		
Trichlorofluoromethane	U	UJ	JO	0.130	2.50	1	04/25/2019 17:08	WG1271705	⁵ Sr
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 17:08	WG1271705		
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 17:08	WG1271705	⁶ Qc	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 17:08	WG1271705		
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 17:08	WG1271705		
Vinyl acetate	U		0.645	5.00	1	04/25/2019 17:08	WG1271705	⁷ GI	
Vinyl chloride	19.5	J	JO	0.118	0.500	1	04/25/2019 17:08	WG1271705	
Xylenes, Total	U		0.316	1.50	1	04/25/2019 17:08	WG1271705	⁸ AI	
(S) Toluene-d8	100			80.0-120		04/25/2019 17:08	WG1271705		
(S) 4-Bromofluorobenzene	104			77.0-126		04/25/2019 17:08	WG1271705		
(S) 1,2-Dichloroethane-d4	93.3			70.0-130		04/25/2019 17:08	WG1271705	⁹ SC	



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity	196000		2710	20000	1	04/29/2019 17:35	WG1273424

Sample Narrative:

L1091936-03 WG1273424: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	18600		51.9	1000	1	04/24/2019 19:20	WG1271082
Nitrate	U		22.7	100	1	04/24/2019 19:20	WG1271082
Sulfate	5960		77.4	5000	1	04/24/2019 19:20	WG1271082

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	5970		102	1000	1	04/24/2019 22:37	WG1271094

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Iron	5030		75.0	500	5	05/07/2019 00:32	WG1271169
Manganese	285		1.25	25.0	5	05/07/2019 00:32	WG1271169

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	174	J+	31.6	100	1	04/25/2019 14:32	WG1271515
(S) a,a,a-Trifluorotoluene(FID)	111			78.0-120		04/25/2019 14:32	WG1271515

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methane	437		0.287	0.678	1	04/26/2019 13:42	WG1271298
Ethane	2.60		0.296	1.29	1	04/26/2019 13:42	WG1271298
Ethene	17.7		0.422	1.27	1	04/26/2019 13:42	WG1271298

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	23.4	J	J JO	1.05	25.0	1	04/24/2019 18:16	WG1271083
Acrylonitrile	U			0.873	5.00	1	04/24/2019 18:16	WG1271083
Benzene	U			0.0896	0.500	1	04/24/2019 18:16	WG1271083
Bromobenzene	U			0.133	0.500	1	04/24/2019 18:16	WG1271083
Bromodichloromethane	U			0.0800	0.500	1	04/24/2019 18:16	WG1271083
Bromochloromethane	U			0.145	0.500	1	04/24/2019 18:16	WG1271083
Bromoform	U			0.186	0.500	1	04/24/2019 18:16	WG1271083
Bromomethane	U	UJ	JO	0.157	2.50	1	04/24/2019 18:16	WG1271083
n-Butylbenzene	U			0.143	0.500	1	04/24/2019 18:16	WG1271083
sec-Butylbenzene	U			0.134	0.500	1	04/24/2019 18:16	WG1271083
tert-Butylbenzene	U			0.183	0.500	1	04/24/2019 18:16	WG1271083
Carbon disulfide	U			0.101	0.500	1	04/24/2019 18:16	WG1271083
Carbon tetrachloride	U			0.159	0.500	1	04/24/2019 18:16	WG1271083



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	04/24/2019 18:16	WG1271083
Chlorodibromomethane	U		0.128	0.500	1	04/24/2019 18:16	WG1271083
Chloroethane	U	UJ JO	0.141	2.50	1	04/24/2019 18:16	WG1271083
Chloroform	U		0.0860	0.500	1	04/24/2019 18:16	WG1271083
Chloromethane	U		0.153	1.25	1	04/24/2019 18:16	WG1271083
2-Chlorotoluene	U		0.111	0.500	1	04/24/2019 18:16	WG1271083
4-Chlorotoluene	U		0.0972	0.500	1	04/24/2019 18:16	WG1271083
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/24/2019 18:16	WG1271083
1,2-Dibromoethane	U		0.193	0.500	1	04/24/2019 18:16	WG1271083
Dibromomethane	U		0.117	0.500	1	04/24/2019 18:16	WG1271083
1,2-Dichlorobenzene	U		0.101	0.500	1	04/24/2019 18:16	WG1271083
1,3-Dichlorobenzene	U		0.130	0.500	1	04/24/2019 18:16	WG1271083
1,4-Dichlorobenzene	U		0.121	0.500	1	04/24/2019 18:16	WG1271083
Dichlorodifluoromethane	U		0.127	2.50	1	04/24/2019 18:16	WG1271083
1,1-Dichloroethane	U		0.114	0.500	1	04/24/2019 18:16	WG1271083
1,2-Dichloroethane	U		0.108	0.500	1	04/24/2019 18:16	WG1271083
1,1-Dichloroethene	5.86		0.188	0.500	1	04/24/2019 18:16	WG1271083
cis-1,2-Dichloroethene	162		0.0933	0.500	1	04/24/2019 18:16	WG1271083
trans-1,2-Dichloroethene	2.49		0.152	0.500	1	04/24/2019 18:16	WG1271083
1,2-Dichloropropane	U		0.190	0.500	1	04/24/2019 18:16	WG1271083
1,1-Dichloropropene	U		0.128	0.500	1	04/24/2019 18:16	WG1271083
1,3-Dichloropropane	U		0.147	1.00	1	04/24/2019 18:16	WG1271083
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/24/2019 18:16	WG1271083
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/24/2019 18:16	WG1271083
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/24/2019 18:16	WG1271083
2,2-Dichloropropane	U		0.0929	0.500	1	04/24/2019 18:16	WG1271083
Di-isopropyl ether	U		0.0924	0.500	1	04/24/2019 18:16	WG1271083
Ethylbenzene	U		0.158	0.500	1	04/24/2019 18:16	WG1271083
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/24/2019 18:16	WG1271083
2-Hexanone	U		0.757	5.00	1	04/24/2019 18:16	WG1271083
n-Hexane	U		0.305	5.00	1	04/24/2019 18:16	WG1271083
Iodomethane	U		0.377	10.0	1	04/24/2019 18:16	WG1271083
Isopropylbenzene	U		0.126	0.500	1	04/24/2019 18:16	WG1271083
p-Isopropyltoluene	U		0.138	0.500	1	04/24/2019 18:16	WG1271083
2-Butanone (MEK)	4.72	J J	1.28	5.00	1	04/24/2019 18:16	WG1271083
Methylene Chloride	U		1.07	2.50	1	04/24/2019 18:16	WG1271083
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/24/2019 18:16	WG1271083
Methyl tert-butyl ether	U		0.102	0.500	1	04/24/2019 18:16	WG1271083
Naphthalene	U		0.174	2.50	1	04/24/2019 18:16	WG1271083
n-Propylbenzene	U		0.162	0.500	1	04/24/2019 18:16	WG1271083
Styrene	U		0.117	0.500	1	04/24/2019 18:16	WG1271083
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/24/2019 18:16	WG1271083
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/24/2019 18:16	WG1271083
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 18:16	WG1271083
Tetrachloroethene	15.9		0.199	0.500	1	04/24/2019 18:16	WG1271083
Toluene	U		0.412	0.500	1	04/24/2019 18:16	WG1271083
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 18:16	WG1271083
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 18:16	WG1271083
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 18:16	WG1271083
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 18:16	WG1271083
Trichloroethene	56.9		0.153	0.500	1	04/24/2019 18:16	WG1271083
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	04/24/2019 18:16	WG1271083
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 18:16	WG1271083
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 18:16	WG1271083
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 18:16	WG1271083
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 18:16	WG1271083

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier <u>UJ</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	1 Cp
Vinyl acetate	U	<u>UJ</u>	<u>J0</u>	0.645	5.00	1	04/24/2019 18:16	<u>WG1271083</u>
Vinyl chloride	21.1	<u>J</u>	<u>J0</u>	0.118	0.500	1	04/24/2019 18:16	<u>WG1271083</u>
Xylenes, Total	U			0.316	1.50	1	04/24/2019 18:16	<u>WG1271083</u>
(S) Toluene-d8	100			80.0-120		04/24/2019 18:16	<u>WG1271083</u>	
(S) 4-Bromofluorobenzene	106			77.0-126		04/24/2019 18:16	<u>WG1271083</u>	
(S) 1,2-Dichloroethane-d4	92.0			70.0-130		04/24/2019 18:16	<u>WG1271083</u>	

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	275000		2710	20000	1	04/29/2019 17:43	WG1273424

Sample Narrative:

L1091936-04 WG1273424: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	37900		51.9	1000	1	04/24/2019 19:35	WG1271082
Nitrate	U		22.7	100	1	04/24/2019 19:35	WG1271082
Sulfate	5810		77.4	5000	1	04/24/2019 19:35	WG1271082

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	4060		102	1000	1	04/24/2019 23:17	WG1271094

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	5270		75.0	500	5	05/07/2019 00:37	WG1271169
Manganese	893		1.25	25.0	5	05/07/2019 00:37	WG1271169

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/25/2019 14:56	WG1271515
(S) a,a,a-Trifluorotoluene(FID)	111			78.0-120		04/25/2019 14:56	WG1271515

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	1660		0.287	0.678	1	04/26/2019 13:45	WG1271298
Ethane	U		0.296	1.29	1	04/26/2019 13:45	WG1271298
Ethene	U		0.422	1.27	1	04/26/2019 13:45	WG1271298

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
Acetone	1.22	J	J JO	1.05	25.0	1	04/24/2019 18:36	WG1271083
Acrylonitrile	U			0.873	5.00	1	04/24/2019 18:36	WG1271083
Benzene	U			0.0896	0.500	1	04/24/2019 18:36	WG1271083
Bromobenzene	U			0.133	0.500	1	04/24/2019 18:36	WG1271083
Bromodichloromethane	U			0.0800	0.500	1	04/24/2019 18:36	WG1271083
Bromoform	U			0.145	0.500	1	04/24/2019 18:36	WG1271083
Bromomethane	U	UJ	JO	0.157	2.50	1	04/24/2019 18:36	WG1271083
n-Butylbenzene	U			0.143	0.500	1	04/24/2019 18:36	WG1271083
sec-Butylbenzene	U			0.134	0.500	1	04/24/2019 18:36	WG1271083
tert-Butylbenzene	U			0.183	0.500	1	04/24/2019 18:36	WG1271083
Carbon disulfide	U			0.101	0.500	1	04/24/2019 18:36	WG1271083
Carbon tetrachloride	U			0.159	0.500	1	04/24/2019 18:36	WG1271083



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	04/24/2019 18:36	WG1271083
Chlorodibromomethane	U		0.128	0.500	1	04/24/2019 18:36	WG1271083
Chloroethane	U	UJ JO	0.141	2.50	1	04/24/2019 18:36	WG1271083
Chloroform	U		0.0860	0.500	1	04/24/2019 18:36	WG1271083
Chloromethane	U		0.153	1.25	1	04/24/2019 18:36	WG1271083
2-Chlorotoluene	U		0.111	0.500	1	04/24/2019 18:36	WG1271083
4-Chlorotoluene	U		0.0972	0.500	1	04/24/2019 18:36	WG1271083
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/24/2019 18:36	WG1271083
1,2-Dibromoethane	U		0.193	0.500	1	04/24/2019 18:36	WG1271083
Dibromomethane	U		0.117	0.500	1	04/24/2019 18:36	WG1271083
1,2-Dichlorobenzene	U		0.101	0.500	1	04/24/2019 18:36	WG1271083
1,3-Dichlorobenzene	U		0.130	0.500	1	04/24/2019 18:36	WG1271083
1,4-Dichlorobenzene	U		0.121	0.500	1	04/24/2019 18:36	WG1271083
Dichlorodifluoromethane	U		0.127	2.50	1	04/24/2019 18:36	WG1271083
1,1-Dichloroethane	U		0.114	0.500	1	04/24/2019 18:36	WG1271083
1,2-Dichloroethane	U		0.108	0.500	1	04/24/2019 18:36	WG1271083
1,1-Dichloroethene	U		0.188	0.500	1	04/24/2019 18:36	WG1271083
cis-1,2-Dichloroethene	0.917		0.0933	0.500	1	04/24/2019 18:36	WG1271083
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/24/2019 18:36	WG1271083
1,2-Dichloropropane	U		0.190	0.500	1	04/24/2019 18:36	WG1271083
1,1-Dichloropropene	U		0.128	0.500	1	04/24/2019 18:36	WG1271083
1,3-Dichloropropane	U		0.147	1.00	1	04/24/2019 18:36	WG1271083
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/24/2019 18:36	WG1271083
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/24/2019 18:36	WG1271083
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/24/2019 18:36	WG1271083
2,2-Dichloropropane	U		0.0929	0.500	1	04/24/2019 18:36	WG1271083
Di-isopropyl ether	U		0.0924	0.500	1	04/24/2019 18:36	WG1271083
Ethylbenzene	U		0.158	0.500	1	04/24/2019 18:36	WG1271083
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/24/2019 18:36	WG1271083
2-Hexanone	U		0.757	5.00	1	04/24/2019 18:36	WG1271083
n-Hexane	U		0.305	5.00	1	04/24/2019 18:36	WG1271083
Iodomethane	U		0.377	10.0	1	04/24/2019 18:36	WG1271083
Isopropylbenzene	U		0.126	0.500	1	04/24/2019 18:36	WG1271083
p-Isopropyltoluene	U		0.138	0.500	1	04/24/2019 18:36	WG1271083
2-Butanone (MEK)	U		1.28	5.00	1	04/24/2019 18:36	WG1271083
Methylene Chloride	U		1.07	2.50	1	04/24/2019 18:36	WG1271083
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/24/2019 18:36	WG1271083
Methyl tert-butyl ether	U		0.102	0.500	1	04/24/2019 18:36	WG1271083
Naphthalene	U		0.174	2.50	1	04/24/2019 18:36	WG1271083
n-Propylbenzene	U		0.162	0.500	1	04/24/2019 18:36	WG1271083
Styrene	U		0.117	0.500	1	04/24/2019 18:36	WG1271083
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/24/2019 18:36	WG1271083
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/24/2019 18:36	WG1271083
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 18:36	WG1271083
Tetrachloroethene	U		0.199	0.500	1	04/24/2019 18:36	WG1271083
Toluene	U		0.412	0.500	1	04/24/2019 18:36	WG1271083
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 18:36	WG1271083
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 18:36	WG1271083
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 18:36	WG1271083
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 18:36	WG1271083
Trichloroethene	U		0.153	0.500	1	04/24/2019 18:36	WG1271083
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	04/24/2019 18:36	WG1271083
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 18:36	WG1271083
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 18:36	WG1271083
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 18:36	WG1271083
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 18:36	WG1271083

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- 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	
Vinyl acetate	U	UJ	JO	0.645	5.00	1	04/24/2019 18:36	WG1271083
Vinyl chloride	0.238	J	JJ0	0.118	0.500	1	04/24/2019 18:36	WG1271083
Xylenes, Total	U			0.316	1.50	1	04/24/2019 18:36	WG1271083
(S) Toluene-d8	101				80.0-120		04/24/2019 18:36	WG1271083
(S) 4-Bromofluorobenzene	105				77.0-126		04/24/2019 18:36	WG1271083
(S) 1,2-Dichloroethane-d4	93.1				70.0-130		04/24/2019 18:36	WG1271083

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	346000		2710	20000	1	04/29/2019 17:50	WG1273424

Sample Narrative:

L1091936-05 WG1273424: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	26900		51.9	1000	1	04/24/2019 19:49	WG1271082
Nitrate	U		22.7	100	1	04/24/2019 19:49	WG1271082
Sulfate	28100		77.4	5000	1	04/24/2019 19:49	WG1271082

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	13700		102	1000	1	04/24/2019 23:34	WG1271094

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	4390		75.0	500	5	05/07/2019 00:43	WG1271169
Manganese	787		1.25	25.0	5	05/07/2019 00:43	WG1271169

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	139	J+	31.6	100	1	04/25/2019 15:20	WG1271515
(S) a,a,a-Trifluorotoluene(FID)	111			78.0-120		04/25/2019 15:20	WG1271515

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	8110		2.87	6.78	10	04/26/2019 14:59	WG1271298
Ethane	U		0.296	1.29	1	04/26/2019 13:49	WG1271298
Ethene	158		0.422	1.27	1	04/26/2019 13:49	WG1271298

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
Acetone	1.91	J	J JO	1.05	25.0	1	04/24/2019 18:56	WG1271083
Acrylonitrile	U			0.873	5.00	1	04/24/2019 18:56	WG1271083
Benzene	U			0.0896	0.500	1	04/24/2019 18:56	WG1271083
Bromobenzene	U			0.133	0.500	1	04/24/2019 18:56	WG1271083
Bromodichloromethane	U			0.0800	0.500	1	04/24/2019 18:56	WG1271083
Bromoform	U			0.145	0.500	1	04/24/2019 18:56	WG1271083
Bromomethane	U	UJ	JO	0.157	2.50	1	04/24/2019 18:56	WG1271083
n-Butylbenzene	U			0.143	0.500	1	04/24/2019 18:56	WG1271083
sec-Butylbenzene	U			0.134	0.500	1	04/24/2019 18:56	WG1271083
tert-Butylbenzene	U			0.183	0.500	1	04/24/2019 18:56	WG1271083
Carbon disulfide	U			0.101	0.500	1	04/24/2019 18:56	WG1271083
Carbon tetrachloride	U			0.159	0.500	1	04/24/2019 18:56	WG1271083



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	04/24/2019 18:56	WG1271083
Chlorodibromomethane	U		0.128	0.500	1	04/24/2019 18:56	WG1271083
Chloroethane	U	UJ JO	0.141	2.50	1	04/24/2019 18:56	WG1271083
Chloroform	U		0.0860	0.500	1	04/24/2019 18:56	WG1271083
Chloromethane	U		0.153	1.25	1	04/24/2019 18:56	WG1271083
2-Chlorotoluene	U		0.111	0.500	1	04/24/2019 18:56	WG1271083
4-Chlorotoluene	U		0.0972	0.500	1	04/24/2019 18:56	WG1271083
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/24/2019 18:56	WG1271083
1,2-Dibromoethane	U		0.193	0.500	1	04/24/2019 18:56	WG1271083
Dibromomethane	U		0.117	0.500	1	04/24/2019 18:56	WG1271083
1,2-Dichlorobenzene	U		0.101	0.500	1	04/24/2019 18:56	WG1271083
1,3-Dichlorobenzene	U		0.130	0.500	1	04/24/2019 18:56	WG1271083
1,4-Dichlorobenzene	U		0.121	0.500	1	04/24/2019 18:56	WG1271083
Dichlorodifluoromethane	U		0.127	2.50	1	04/24/2019 18:56	WG1271083
1,1-Dichloroethane	U		0.114	0.500	1	04/24/2019 18:56	WG1271083
1,2-Dichloroethane	U		0.108	0.500	1	04/24/2019 18:56	WG1271083
1,1-Dichloroethene	1.75		0.188	0.500	1	04/24/2019 18:56	WG1271083
cis-1,2-Dichloroethene	322		0.933	5.00	10	04/26/2019 12:43	WG1272362
trans-1,2-Dichloroethene	1.47		0.152	0.500	1	04/24/2019 18:56	WG1271083
1,2-Dichloropropane	U		0.190	0.500	1	04/24/2019 18:56	WG1271083
1,1-Dichloropropene	U		0.128	0.500	1	04/24/2019 18:56	WG1271083
1,3-Dichloropropane	U		0.147	1.00	1	04/24/2019 18:56	WG1271083
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/24/2019 18:56	WG1271083
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/24/2019 18:56	WG1271083
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/24/2019 18:56	WG1271083
2,2-Dichloropropane	U		0.0929	0.500	1	04/24/2019 18:56	WG1271083
Di-isopropyl ether	U		0.0924	0.500	1	04/24/2019 18:56	WG1271083
Ethylbenzene	U		0.158	0.500	1	04/24/2019 18:56	WG1271083
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/24/2019 18:56	WG1271083
2-Hexanone	U		0.757	5.00	1	04/24/2019 18:56	WG1271083
n-Hexane	U		0.305	5.00	1	04/24/2019 18:56	WG1271083
Iodomethane	U		0.377	10.0	1	04/24/2019 18:56	WG1271083
Isopropylbenzene	U		0.126	0.500	1	04/24/2019 18:56	WG1271083
p-Isopropyltoluene	U		0.138	0.500	1	04/24/2019 18:56	WG1271083
2-Butanone (MEK)	U		1.28	5.00	1	04/24/2019 18:56	WG1271083
Methylene Chloride	U		1.07	2.50	1	04/24/2019 18:56	WG1271083
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/24/2019 18:56	WG1271083
Methyl tert-butyl ether	U		0.102	0.500	1	04/24/2019 18:56	WG1271083
Naphthalene	U		0.174	2.50	1	04/24/2019 18:56	WG1271083
n-Propylbenzene	U		0.162	0.500	1	04/24/2019 18:56	WG1271083
Styrene	U		0.117	0.500	1	04/24/2019 18:56	WG1271083
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/24/2019 18:56	WG1271083
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/24/2019 18:56	WG1271083
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 18:56	WG1271083
Tetrachloroethene	U		0.199	0.500	1	04/24/2019 18:56	WG1271083
Toluene	U		0.412	0.500	1	04/24/2019 18:56	WG1271083
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 18:56	WG1271083
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 18:56	WG1271083
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 18:56	WG1271083
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 18:56	WG1271083
Trichloroethene	5.13		0.153	0.500	1	04/24/2019 18:56	WG1271083
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	04/24/2019 18:56	WG1271083
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 18:56	WG1271083
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 18:56	WG1271083
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 18:56	WG1271083
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 18:56	WG1271083

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

MW147-042319

Collected date/time: 04/23/19 14:00

SAMPLE RESULTS - 05

L1091936

ONE LAB. NATIONWIDE.



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

Analyte	Result ug/l	Qualifier <u>UJ</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Vinyl acetate	U	<u>UJ</u>	0.645	5.00	1	04/24/2019 18:56	WG1271083
Vinyl chloride	499		1.18	5.00	10	04/26/2019 12:43	WG1272362
Xylenes, Total	U	<u>UJ</u>	0.316	1.50	1	04/24/2019 18:56	WG1271083
(S) Toluene-d8	100			80.0-120		04/24/2019 18:56	WG1271083
(S) Toluene-d8	98.8			80.0-120		04/26/2019 12:43	WG1272362
(S) 4-Bromofluorobenzene	105			77.0-126		04/24/2019 18:56	WG1271083
(S) 4-Bromofluorobenzene	99.9			77.0-126		04/26/2019 12:43	WG1272362
(S) 1,2-Dichloroethane-d4	94.2			70.0-130		04/24/2019 18:56	WG1271083
(S) 1,2-Dichloroethane-d4	89.2			70.0-130		04/26/2019 12:43	WG1272362

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ 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	04/25/2019 12:32	WG1271515
(S) a,a,a-Trifluorotoluene(FID)	112			78.0-120		04/25/2019 12:32	WG1271515

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
Acetone	U		1.05	25.0	1	04/24/2019 16:36	WG1271083
Acrylonitrile	U		0.873	5.00	1	04/24/2019 16:36	WG1271083
Benzene	U		0.0896	0.500	1	04/24/2019 16:36	WG1271083
Bromobenzene	U		0.133	0.500	1	04/24/2019 16:36	WG1271083
Bromodichloromethane	U		0.0800	0.500	1	04/24/2019 16:36	WG1271083
Bromoform	U		0.145	0.500	1	04/24/2019 16:36	WG1271083
Bromomethane	U	UJ JO	0.157	2.50	1	04/24/2019 16:36	WG1271083
n-Butylbenzene	U		0.143	0.500	1	04/24/2019 16:36	WG1271083
sec-Butylbenzene	U		0.134	0.500	1	04/24/2019 16:36	WG1271083
tert-Butylbenzene	U		0.183	0.500	1	04/24/2019 16:36	WG1271083
Carbon disulfide	U		0.101	0.500	1	04/24/2019 16:36	WG1271083
Carbon tetrachloride	U		0.159	0.500	1	04/24/2019 16:36	WG1271083
Chlorobenzene	U		0.140	0.500	1	04/24/2019 16:36	WG1271083
Chlorodibromomethane	U		0.128	0.500	1	04/24/2019 16:36	WG1271083
Chloroethane	U	UJ JO	0.141	2.50	1	04/24/2019 16:36	WG1271083
Chloroform	U		0.0860	0.500	1	04/24/2019 16:36	WG1271083
Chloromethane	U		0.153	1.25	1	04/24/2019 16:36	WG1271083
2-Chlorotoluene	U		0.111	0.500	1	04/24/2019 16:36	WG1271083
4-Chlorotoluene	U		0.0972	0.500	1	04/24/2019 16:36	WG1271083
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/24/2019 16:36	WG1271083
1,2-Dibromoethane	U		0.193	0.500	1	04/24/2019 16:36	WG1271083
Dibromomethane	U		0.117	0.500	1	04/24/2019 16:36	WG1271083
1,2-Dichlorobenzene	U		0.101	0.500	1	04/24/2019 16:36	WG1271083
1,3-Dichlorobenzene	U		0.130	0.500	1	04/24/2019 16:36	WG1271083
1,4-Dichlorobenzene	U		0.121	0.500	1	04/24/2019 16:36	WG1271083
Dichlorodifluoromethane	U		0.127	2.50	1	04/24/2019 16:36	WG1271083
1,1-Dichloroethane	U		0.114	0.500	1	04/24/2019 16:36	WG1271083
1,2-Dichloroethane	U		0.108	0.500	1	04/24/2019 16:36	WG1271083
1,1-Dichloroethene	U		0.188	0.500	1	04/24/2019 16:36	WG1271083
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/24/2019 16:36	WG1271083
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/24/2019 16:36	WG1271083
1,2-Dichloropropane	U		0.190	0.500	1	04/24/2019 16:36	WG1271083
1,1-Dichloropropene	U		0.128	0.500	1	04/24/2019 16:36	WG1271083
1,3-Dichloropropane	U		0.147	1.00	1	04/24/2019 16:36	WG1271083
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/24/2019 16:36	WG1271083
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/24/2019 16:36	WG1271083
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/24/2019 16:36	WG1271083
2,2-Dichloropropane	U		0.0929	0.500	1	04/24/2019 16:36	WG1271083
Di-isopropyl ether	U		0.0924	0.500	1	04/24/2019 16:36	WG1271083
Ethylbenzene	U		0.158	0.500	1	04/24/2019 16:36	WG1271083
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/24/2019 16:36	WG1271083
2-Hexanone	U		0.757	5.00	1	04/24/2019 16:36	WG1271083
n-Hexane	U		0.305	5.00	1	04/24/2019 16:36	WG1271083
Iodomethane	U		0.377	10.0	1	04/24/2019 16:36	WG1271083
Isopropylbenzene	U		0.126	0.500	1	04/24/2019 16:36	WG1271083
p-Isopropyltoluene	U		0.138	0.500	1	04/24/2019 16:36	WG1271083
2-Butanone (MEK)	U		1.28	5.00	1	04/24/2019 16:36	WG1271083



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	04/24/2019 16:36	WG1271083	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/24/2019 16:36	WG1271083	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	04/24/2019 16:36	WG1271083	³ Ss
Naphthalene	U		0.174	2.50	1	04/24/2019 16:36	WG1271083	⁴ Cn
n-Propylbenzene	U		0.162	0.500	1	04/24/2019 16:36	WG1271083	⁵ Sr
Styrene	U		0.117	0.500	1	04/24/2019 16:36	WG1271083	⁶ Qc
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/24/2019 16:36	WG1271083	⁷ Gl
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/24/2019 16:36	WG1271083	⁸ Al
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/24/2019 16:36	WG1271083	⁹ Sc
Tetrachloroethene	U		0.199	0.500	1	04/24/2019 16:36	WG1271083	
Toluene	U		0.412	0.500	1	04/24/2019 16:36	WG1271083	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/24/2019 16:36	WG1271083	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/24/2019 16:36	WG1271083	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/24/2019 16:36	WG1271083	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/24/2019 16:36	WG1271083	
Trichloroethene	U		0.153	0.500	1	04/24/2019 16:36	WG1271083	
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	04/24/2019 16:36	WG1271083	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/24/2019 16:36	WG1271083	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/24/2019 16:36	WG1271083	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/24/2019 16:36	WG1271083	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/24/2019 16:36	WG1271083	
Vinyl acetate	U	UJ JO	0.645	5.00	1	04/24/2019 16:36	WG1271083	
Vinyl chloride	U	UJ JO	0.118	0.500	1	04/24/2019 16:36	WG1271083	
Xylenes, Total	U		0.316	1.50	1	04/24/2019 16:36	WG1271083	
(S) Toluene-d8	100			80.0-120		04/24/2019 16:36	WG1271083	
(S) 4-Bromofluorobenzene	105			77.0-126		04/24/2019 16:36	WG1271083	
(S) 1,2-Dichloroethane-d4	92.9			70.0-130		04/24/2019 16:36	WG1271083	

ANALYTICAL REPORT

May 08, 2019

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

PES Environmental, Inc.- WA

Sample Delivery Group: L1091958
Samples Received: 04/24/2019
Project Number: 1413.001.05.601
Description: American Linen
Site: AMERICAN LINEN
Report To: Brian O'Neal/Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

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



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TRIP BLANK-042319 L1091958-05	16	
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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



			Collected by KZ/BH	Collected date/time 04/23/19 07:45	Received date/time 04/24/19 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1273427	1	04/30/19 17:24	04/30/19 17:24	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1271082	1	04/24/19 23:40	04/24/19 23:40	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1271096	1	04/24/19 17:57	04/24/19 17:57	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271171	20	04/27/19 14:10	05/07/19 00:48	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1271515	1	04/25/19 15:43	04/25/19 15:43	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1271298	1	04/26/19 14:48	04/26/19 14:48	MEL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1273649	20	04/30/19 14:04	04/30/19 14:04	MBF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271705	1	04/25/19 17:28	04/25/19 17:28	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1274056	10	05/01/19 02:42	05/01/19 02:42	JHH	Mt. Juliet, TN
			Collected by KZ/BH	Collected date/time 04/23/19 10:05	Received date/time 04/24/19 08:45	
BB-8-042319 L1091958-02 GW						
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1273427	1	04/30/19 17:31	04/30/19 17:31	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1271082	1	04/25/19 00:09	04/25/19 00:09	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1271096	1	04/24/19 18:18	04/24/19 18:18	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271171	1	04/27/19 14:10	05/06/19 00:10	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1271515	1	04/25/19 16:07	04/25/19 16:07	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1271298	1	04/26/19 14:51	04/26/19 14:51	MEL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271705	1	04/25/19 17:48	04/25/19 17:48	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1274056	1	05/01/19 01:36	05/01/19 01:36	JHH	Mt. Juliet, TN
			Collected by KZ/BH	Collected date/time 04/23/19 11:45	Received date/time 04/24/19 08:45	
MW-155-042319 L1091958-03 GW						
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1271515	1	04/25/19 16:31	04/25/19 16:31	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271705	1	04/25/19 18:09	04/25/19 18:09	BMB	Mt. Juliet, TN
			Collected by KZ/BH	Collected date/time 04/23/19 14:05	Received date/time 04/24/19 08:45	
MW144-042319 L1091958-04 GW						
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1273427	1	04/30/19 17:37	04/30/19 17:37	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1271082	1	04/25/19 00:23	04/25/19 00:23	ST	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1271082	5	04/25/19 00:37	04/25/19 00:37	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1271096	1	04/24/19 19:53	04/24/19 19:53	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271171	1	04/27/19 14:10	05/06/19 00:14	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271171	10	04/27/19 14:10	05/07/19 00:53	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1271515	1	04/25/19 16:55	04/25/19 16:55	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1271298	1	04/26/19 14:56	04/26/19 14:56	MEL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1274563	20	05/02/19 08:44	05/02/19 08:44	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271705	1	04/25/19 18:29	04/25/19 18:29	BMB	Mt. Juliet, TN
			Collected by KZ/BH	Collected date/time 04/23/19 00:00	Received date/time 04/24/19 08:45	
TRIP BLANK-042319 L1091958-05 GW						
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1271515	1	04/25/19 12:56	04/25/19 12:56	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271705	1	04/25/19 16:08	04/25/19 16:08	BMB	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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 GI
- ⁸ AI
- ⁹ SC



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	799000		2710	20000	1	04/30/2019 17:24	WG1273427

Sample Narrative:

L1091958-01 WG1273427: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	86700		51.9	1000	1	04/24/2019 23:40	WG1271082
Nitrate	U		22.7	100	1	04/24/2019 23:40	WG1271082
Sulfate	U		77.4	5000	1	04/24/2019 23:40	WG1271082

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	26100		102	1000	1	04/24/2019 17:57	WG1271096

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	13400		300	2000	20	05/07/2019 00:48	WG1271171
Manganese	3430		5.00	100	20	05/07/2019 00:48	WG1271171

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	429		31.6	100	1	04/25/2019 15:43	WG1271515
(S) a,a,a-Trifluorotoluene(FID)	111			78.0-120		04/25/2019 15:43	WG1271515

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	10600		5.74	13.6	20	04/30/2019 14:04	WG1273649
Ethane	45.2		0.296	1.29	1	04/26/2019 14:48	WG1271298
Ethene	37.4		0.422	1.27	1	04/26/2019 14:48	WG1271298

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	2.25	J J0 J3 J4	1.05	25.0	1	04/25/2019 17:28	WG1271705
Acrylonitrile	U		0.873	5.00	1	04/25/2019 17:28	WG1271705
Benzene	U		0.0896	0.500	1	04/25/2019 17:28	WG1271705
Bromobenzene	U		0.133	0.500	1	04/25/2019 17:28	WG1271705
Bromodichloromethane	U		0.0800	0.500	1	04/25/2019 17:28	WG1271705
Bromochloromethane	U		0.145	0.500	1	04/25/2019 17:28	WG1271705
Bromoform	U		0.186	0.500	1	04/25/2019 17:28	WG1271705
Bromomethane	U	J0	0.157	2.50	1	04/25/2019 17:28	WG1271705
n-Butylbenzene	U		0.143	0.500	1	04/25/2019 17:28	WG1271705
sec-Butylbenzene	U		0.134	0.500	1	04/25/2019 17:28	WG1271705
tert-Butylbenzene	U		0.183	0.500	1	04/25/2019 17:28	WG1271705
Carbon disulfide	0.160	J	0.101	0.500	1	04/25/2019 17:28	WG1271705
Carbon tetrachloride	U		0.159	0.500	1	04/25/2019 17:28	WG1271705



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	04/25/2019 17:28	WG1271705	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/25/2019 17:28	WG1271705	² Tc
Chloroethane	U	<u>JO</u>	0.141	2.50	1	04/25/2019 17:28	WG1271705	³ Ss
Chloroform	U		0.0860	0.500	1	04/25/2019 17:28	WG1271705	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/25/2019 17:28	WG1271705	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/25/2019 17:28	WG1271705	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/25/2019 17:28	WG1271705	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/25/2019 17:28	WG1271705	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	04/25/2019 17:28	WG1271705	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/25/2019 17:28	WG1271705	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/25/2019 17:28	WG1271705	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/25/2019 17:28	WG1271705	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/25/2019 17:28	WG1271705	
Dichlorodifluoromethane	U		0.127	2.50	1	04/25/2019 17:28	WG1271705	
1,1-Dichloroethane	U		0.114	0.500	1	04/25/2019 17:28	WG1271705	
1,2-Dichloroethane	U		0.108	0.500	1	04/25/2019 17:28	WG1271705	
1,1-Dichloroethene	1.96		0.188	0.500	1	04/25/2019 17:28	WG1271705	
cis-1,2-Dichloroethene	672		0.933	5.00	10	05/01/2019 02:42	WG1274056	
trans-1,2-Dichloroethene	2.35		0.152	0.500	1	04/25/2019 17:28	WG1271705	
1,2-Dichloropropane	U		0.190	0.500	1	04/25/2019 17:28	WG1271705	
1,1-Dichloropropene	U		0.128	0.500	1	04/25/2019 17:28	WG1271705	
1,3-Dichloropropane	U		0.147	1.00	1	04/25/2019 17:28	WG1271705	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/25/2019 17:28	WG1271705	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/25/2019 17:28	WG1271705	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/25/2019 17:28	WG1271705	
2,2-Dichloropropane	U		0.0929	0.500	1	04/25/2019 17:28	WG1271705	
Di-isopropyl ether	U		0.0924	0.500	1	04/25/2019 17:28	WG1271705	
Ethylbenzene	U		0.158	0.500	1	04/25/2019 17:28	WG1271705	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/25/2019 17:28	WG1271705	
2-Hexanone	U		0.757	5.00	1	04/25/2019 17:28	WG1271705	
n-Hexane	U		0.305	5.00	1	04/25/2019 17:28	WG1271705	
Iodomethane	U		0.377	10.0	1	04/25/2019 17:28	WG1271705	
Isopropylbenzene	U		0.126	0.500	1	04/25/2019 17:28	WG1271705	
p-Isopropyltoluene	U		0.138	0.500	1	04/25/2019 17:28	WG1271705	
2-Butanone (MEK)	U		1.28	5.00	1	04/25/2019 17:28	WG1271705	
Methylene Chloride	U		1.07	2.50	1	04/25/2019 17:28	WG1271705	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 17:28	WG1271705	
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 17:28	WG1271705	
Naphthalene	U		0.174	2.50	1	04/25/2019 17:28	WG1271705	
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 17:28	WG1271705	
Styrene	U		0.117	0.500	1	04/25/2019 17:28	WG1271705	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 17:28	WG1271705	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 17:28	WG1271705	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 17:28	WG1271705	
Tetrachloroethene	U		0.199	0.500	1	04/25/2019 17:28	WG1271705	
Toluene	0.560		0.412	0.500	1	04/25/2019 17:28	WG1271705	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 17:28	WG1271705	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 17:28	WG1271705	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 17:28	WG1271705	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 17:28	WG1271705	
Trichloroethene	40.1		0.153	0.500	1	04/25/2019 17:28	WG1271705	
Trichlorofluoromethane	U	<u>JO</u>	0.130	2.50	1	04/25/2019 17:28	WG1271705	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 17:28	WG1271705	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 17:28	WG1271705	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 17:28	WG1271705	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 17:28	WG1271705	

W-MW-02-042319

Collected date/time: 04/23/19 07:45

SAMPLE RESULTS - 01

L1091958

ONE LAB. NATIONWIDE.



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Vinyl acetate	U		0.645	5.00	1	04/25/2019 17:28	WG1271705
Vinyl chloride	81.0	<u>J0</u>	0.118	0.500	1	04/25/2019 17:28	WG1271705
Xylenes, Total	U		0.316	1.50	1	04/25/2019 17:28	WG1271705
(S) Toluene-d8	100			80.0-120		04/25/2019 17:28	WG1271705
(S) Toluene-d8	103			80.0-120		05/01/2019 02:42	WG1274056
(S) 4-Bromofluorobenzene	106			77.0-126		04/25/2019 17:28	WG1271705
(S) 4-Bromofluorobenzene	99.6			77.0-126		05/01/2019 02:42	WG1274056
(S) 1,2-Dichloroethane-d4	93.5			70.0-130		04/25/2019 17:28	WG1271705
(S) 1,2-Dichloroethane-d4	100			70.0-130		05/01/2019 02:42	WG1274056

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	227000		2710	20000	1	04/30/2019 17:31	WG1273427

Sample Narrative:

L1091958-02 WG1273427: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	28100		51.9	1000	1	04/25/2019 00:09	WG1271082
Nitrate	2770		22.7	100	1	04/25/2019 00:09	WG1271082
Sulfate	44400		77.4	5000	1	04/25/2019 00:09	WG1271082

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	2710	<u>B</u>	102	1000	1	04/24/2019 18:18	WG1271096

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	315		15.0	100	1	05/06/2019 00:10	WG1271171
Manganese	63.7		0.250	5.00	1	05/06/2019 00:10	WG1271171

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/25/2019 16:07	WG1271515
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	112			78.0-120		04/25/2019 16:07	WG1271515

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	U		0.287	0.678	1	04/26/2019 14:51	WG1271298
Ethane	U		0.296	1.29	1	04/26/2019 14:51	WG1271298
Ethene	U		0.422	1.27	1	04/26/2019 14:51	WG1271298

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	2.03	<u>J J0 J3 J4</u>	1.05	25.0	1	04/25/2019 17:48	WG1271705
Acrylonitrile	U		0.873	5.00	1	04/25/2019 17:48	WG1271705
Benzene	U		0.0896	0.500	1	04/25/2019 17:48	WG1271705
Bromobenzene	U		0.133	0.500	1	04/25/2019 17:48	WG1271705
Bromodichloromethane	U		0.0800	0.500	1	04/25/2019 17:48	WG1271705
Bromochloromethane	U		0.145	0.500	1	04/25/2019 17:48	WG1271705
Bromoform	U		0.186	0.500	1	04/25/2019 17:48	WG1271705
Bromomethane	U	<u>J0</u>	0.157	2.50	1	04/25/2019 17:48	WG1271705
n-Butylbenzene	U		0.143	0.500	1	04/25/2019 17:48	WG1271705
sec-Butylbenzene	U		0.134	0.500	1	04/25/2019 17:48	WG1271705
tert-Butylbenzene	U		0.183	0.500	1	04/25/2019 17:48	WG1271705
Carbon disulfide	U		0.101	0.500	1	04/25/2019 17:48	WG1271705
Carbon tetrachloride	U		0.159	0.500	1	04/25/2019 17:48	WG1271705



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	04/25/2019 17:48	WG1271705	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/25/2019 17:48	WG1271705	² Tc
Chloroethane	U	<u>JO</u>	0.141	2.50	1	04/25/2019 17:48	WG1271705	³ Ss
Chloroform	U		0.0860	0.500	1	04/25/2019 17:48	WG1271705	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/25/2019 17:48	WG1271705	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/25/2019 17:48	WG1271705	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/25/2019 17:48	WG1271705	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/25/2019 17:48	WG1271705	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	04/25/2019 17:48	WG1271705	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/25/2019 17:48	WG1271705	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/25/2019 17:48	WG1271705	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/25/2019 17:48	WG1271705	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/25/2019 17:48	WG1271705	
Dichlorodifluoromethane	U		0.127	2.50	1	04/25/2019 17:48	WG1271705	
1,1-Dichloroethane	U		0.114	0.500	1	04/25/2019 17:48	WG1271705	
1,2-Dichloroethane	U		0.108	0.500	1	04/25/2019 17:48	WG1271705	
1,1-Dichloroethene	U		0.188	0.500	1	04/25/2019 17:48	WG1271705	
cis-1,2-Dichloroethene	7.57		0.0933	0.500	1	05/01/2019 01:36	WG1274056	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/25/2019 17:48	WG1271705	
1,2-Dichloropropane	U		0.190	0.500	1	04/25/2019 17:48	WG1271705	
1,1-Dichloropropene	U		0.128	0.500	1	04/25/2019 17:48	WG1271705	
1,3-Dichloropropane	U		0.147	1.00	1	04/25/2019 17:48	WG1271705	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/25/2019 17:48	WG1271705	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/25/2019 17:48	WG1271705	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/25/2019 17:48	WG1271705	
2,2-Dichloropropane	U		0.0929	0.500	1	04/25/2019 17:48	WG1271705	
Di-isopropyl ether	U		0.0924	0.500	1	04/25/2019 17:48	WG1271705	
Ethylbenzene	U		0.158	0.500	1	04/25/2019 17:48	WG1271705	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/25/2019 17:48	WG1271705	
2-Hexanone	U		0.757	5.00	1	04/25/2019 17:48	WG1271705	
n-Hexane	U		0.305	5.00	1	04/25/2019 17:48	WG1271705	
Iodomethane	U		0.377	10.0	1	04/25/2019 17:48	WG1271705	
Isopropylbenzene	U		0.126	0.500	1	04/25/2019 17:48	WG1271705	
p-Isopropyltoluene	U		0.138	0.500	1	04/25/2019 17:48	WG1271705	
2-Butanone (MEK)	U		1.28	5.00	1	04/25/2019 17:48	WG1271705	
Methylene Chloride	U		1.07	2.50	1	04/25/2019 17:48	WG1271705	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 17:48	WG1271705	
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 17:48	WG1271705	
Naphthalene	U		0.174	2.50	1	04/25/2019 17:48	WG1271705	
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 17:48	WG1271705	
Styrene	U		0.117	0.500	1	04/25/2019 17:48	WG1271705	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 17:48	WG1271705	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 17:48	WG1271705	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 17:48	WG1271705	
Tetrachloroethene	48.8		0.199	0.500	1	04/25/2019 17:48	WG1271705	
Toluene	U		0.412	0.500	1	04/25/2019 17:48	WG1271705	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 17:48	WG1271705	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 17:48	WG1271705	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 17:48	WG1271705	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 17:48	WG1271705	
Trichloroethene	9.09		0.153	0.500	1	04/25/2019 17:48	WG1271705	
Trichlorofluoromethane	U	<u>JO</u>	0.130	2.50	1	04/25/2019 17:48	WG1271705	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 17:48	WG1271705	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 17:48	WG1271705	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 17:48	WG1271705	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 17:48	WG1271705	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Vinyl acetate	U		0.645	5.00	1	04/25/2019 17:48	WG1271705
Vinyl chloride	U	<u>J0</u>	0.118	0.500	1	04/25/2019 17:48	WG1271705
Xylenes, Total	U		0.316	1.50	1	04/25/2019 17:48	WG1271705
(S) Toluene-d8	101			80.0-120		04/25/2019 17:48	WG1271705
(S) Toluene-d8	103			80.0-120		05/01/2019 01:36	WG1274056
(S) 4-Bromofluorobenzene	104			77.0-126		04/25/2019 17:48	WG1271705
(S) 4-Bromofluorobenzene	101			77.0-126		05/01/2019 01:36	WG1274056
(S) 1,2-Dichloroethane-d4	108			70.0-130		04/25/2019 17:48	WG1271705
(S) 1,2-Dichloroethane-d4	102			70.0-130		05/01/2019 01:36	WG1274056

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ 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	04/25/2019 16:31	WG1271515
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	111			78.0-120		04/25/2019 16:31	WG1271515

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
Acetone	1.86	<u>J</u> <u>J0</u> <u>J3</u> <u>J4</u>	1.05	25.0	1	04/25/2019 18:09	WG1271705
Acrylonitrile	U		0.873	5.00	1	04/25/2019 18:09	WG1271705
Benzene	U		0.0896	0.500	1	04/25/2019 18:09	WG1271705
Bromobenzene	U		0.133	0.500	1	04/25/2019 18:09	WG1271705
Bromodichloromethane	U		0.0800	0.500	1	04/25/2019 18:09	WG1271705
Bromoform	U		0.145	0.500	1	04/25/2019 18:09	WG1271705
Bromomethane	U	<u>J0</u>	0.157	2.50	1	04/25/2019 18:09	WG1271705
n-Butylbenzene	U		0.143	0.500	1	04/25/2019 18:09	WG1271705
sec-Butylbenzene	U		0.134	0.500	1	04/25/2019 18:09	WG1271705
tert-Butylbenzene	U		0.183	0.500	1	04/25/2019 18:09	WG1271705
Carbon disulfide	U		0.101	0.500	1	04/25/2019 18:09	WG1271705
Carbon tetrachloride	U		0.159	0.500	1	04/25/2019 18:09	WG1271705
Chlorobenzene	U		0.140	0.500	1	04/25/2019 18:09	WG1271705
Chlorodibromomethane	U		0.128	0.500	1	04/25/2019 18:09	WG1271705
Chloroethane	U	<u>J0</u>	0.141	2.50	1	04/25/2019 18:09	WG1271705
Chloroform	U		0.0860	0.500	1	04/25/2019 18:09	WG1271705
Chloromethane	U		0.153	1.25	1	04/25/2019 18:09	WG1271705
2-Chlorotoluene	U		0.111	0.500	1	04/25/2019 18:09	WG1271705
4-Chlorotoluene	U		0.0972	0.500	1	04/25/2019 18:09	WG1271705
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/25/2019 18:09	WG1271705
1,2-Dibromoethane	U		0.193	0.500	1	04/25/2019 18:09	WG1271705
Dibromomethane	U		0.117	0.500	1	04/25/2019 18:09	WG1271705
1,2-Dichlorobenzene	U		0.101	0.500	1	04/25/2019 18:09	WG1271705
1,3-Dichlorobenzene	U		0.130	0.500	1	04/25/2019 18:09	WG1271705
1,4-Dichlorobenzene	U		0.121	0.500	1	04/25/2019 18:09	WG1271705
Dichlorodifluoromethane	U		0.127	2.50	1	04/25/2019 18:09	WG1271705
1,1-Dichloroethane	U		0.114	0.500	1	04/25/2019 18:09	WG1271705
1,2-Dichloroethane	U		0.108	0.500	1	04/25/2019 18:09	WG1271705
1,1-Dichloroethylene	0.249	<u>J</u>	0.188	0.500	1	04/25/2019 18:09	WG1271705
cis-1,2-Dichloroethylene	71.9		0.0933	0.500	1	04/25/2019 18:09	WG1271705
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/25/2019 18:09	WG1271705
1,2-Dichloropropane	U		0.190	0.500	1	04/25/2019 18:09	WG1271705
1,1-Dichloropropene	U		0.128	0.500	1	04/25/2019 18:09	WG1271705
1,3-Dichloropropane	U		0.147	1.00	1	04/25/2019 18:09	WG1271705
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/25/2019 18:09	WG1271705
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/25/2019 18:09	WG1271705
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/25/2019 18:09	WG1271705
2,2-Dichloropropane	U		0.0929	0.500	1	04/25/2019 18:09	WG1271705
Di-isopropyl ether	U		0.0924	0.500	1	04/25/2019 18:09	WG1271705
Ethylbenzene	U		0.158	0.500	1	04/25/2019 18:09	WG1271705
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/25/2019 18:09	WG1271705
2-Hexanone	U		0.757	5.00	1	04/25/2019 18:09	WG1271705
n-Hexane	U		0.305	5.00	1	04/25/2019 18:09	WG1271705
Iodomethane	U		0.377	10.0	1	04/25/2019 18:09	WG1271705
Isopropylbenzene	U		0.126	0.500	1	04/25/2019 18:09	WG1271705
p-Isopropyltoluene	U		0.138	0.500	1	04/25/2019 18:09	WG1271705
2-Butanone (MEK)	U		1.28	5.00	1	04/25/2019 18:09	WG1271705



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	04/25/2019 18:09	WG1271705	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 18:09	WG1271705	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 18:09	WG1271705	³ Ss
Naphthalene	U		0.174	2.50	1	04/25/2019 18:09	WG1271705	
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 18:09	WG1271705	
Styrene	U		0.117	0.500	1	04/25/2019 18:09	WG1271705	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 18:09	WG1271705	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 18:09	WG1271705	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 18:09	WG1271705	
Tetrachloroethene	14.6		0.199	0.500	1	04/25/2019 18:09	WG1271705	
Toluene	U		0.412	0.500	1	04/25/2019 18:09	WG1271705	⁶ Qc
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 18:09	WG1271705	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 18:09	WG1271705	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 18:09	WG1271705	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 18:09	WG1271705	
Trichloroethene	4.75		0.153	0.500	1	04/25/2019 18:09	WG1271705	
Trichlorofluoromethane	U	¹⁰	0.130	2.50	1	04/25/2019 18:09	WG1271705	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 18:09	WG1271705	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 18:09	WG1271705	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 18:09	WG1271705	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 18:09	WG1271705	
Vinyl acetate	U		0.645	5.00	1	04/25/2019 18:09	WG1271705	
Vinyl chloride	6.54	¹⁰	0.118	0.500	1	04/25/2019 18:09	WG1271705	
Xylenes, Total	U		0.316	1.50	1	04/25/2019 18:09	WG1271705	
(S) Toluene-d8	101			80.0-120		04/25/2019 18:09	WG1271705	
(S) 4-Bromofluorobenzene	104			77.0-126		04/25/2019 18:09	WG1271705	
(S) 1,2-Dichloroethane-d4	93.4			70.0-130		04/25/2019 18:09	WG1271705	



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	733000		2710	20000	1	04/30/2019 17:37	WG1273427

Sample Narrative:

L1091958-04 WG1273427: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	144000		260	5000	5	04/25/2019 00:37	WG1271082
Nitrate	U		22.7	100	1	04/25/2019 00:23	WG1271082
Sulfate	U		77.4	5000	1	04/25/2019 00:23	WG1271082

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	11400		102	1000	1	04/24/2019 19:53	WG1271096

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	1220		15.0	100	1	05/06/2019 00:14	WG1271171
Manganese	1480		2.50	50.0	10	05/07/2019 00:53	WG1271171

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/25/2019 16:55	WG1271515
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	111			78.0-120		04/25/2019 16:55	WG1271515

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	13000		5.74	13.6	20	05/02/2019 08:44	WG1274563
Ethane	771		0.296	1.29	1	04/26/2019 14:56	WG1271298
Ethene	699		0.422	1.27	1	04/26/2019 14:56	WG1271298

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	2.38	J J0 J3 J4	1.05	25.0	1	04/25/2019 18:29	WG1271705
Acrylonitrile	U		0.873	5.00	1	04/25/2019 18:29	WG1271705
Benzene	U		0.0896	0.500	1	04/25/2019 18:29	WG1271705
Bromobenzene	U		0.133	0.500	1	04/25/2019 18:29	WG1271705
Bromodichloromethane	U		0.0800	0.500	1	04/25/2019 18:29	WG1271705
Bromochloromethane	U		0.145	0.500	1	04/25/2019 18:29	WG1271705
Bromoform	U		0.186	0.500	1	04/25/2019 18:29	WG1271705
Bromomethane	U	J0	0.157	2.50	1	04/25/2019 18:29	WG1271705
n-Butylbenzene	U		0.143	0.500	1	04/25/2019 18:29	WG1271705
sec-Butylbenzene	U		0.134	0.500	1	04/25/2019 18:29	WG1271705
tert-Butylbenzene	U		0.183	0.500	1	04/25/2019 18:29	WG1271705
Carbon disulfide	0.210	J	0.101	0.500	1	04/25/2019 18:29	WG1271705
Carbon tetrachloride	U		0.159	0.500	1	04/25/2019 18:29	WG1271705



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	04/25/2019 18:29	WG1271705
Chlorodibromomethane	U		0.128	0.500	1	04/25/2019 18:29	WG1271705
Chloroethane	U	<u>J0</u>	0.141	2.50	1	04/25/2019 18:29	WG1271705
Chloroform	U		0.0860	0.500	1	04/25/2019 18:29	WG1271705
Chloromethane	U		0.153	1.25	1	04/25/2019 18:29	WG1271705
2-Chlorotoluene	U		0.111	0.500	1	04/25/2019 18:29	WG1271705
4-Chlorotoluene	U		0.0972	0.500	1	04/25/2019 18:29	WG1271705
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/25/2019 18:29	WG1271705
1,2-Dibromoethane	U		0.193	0.500	1	04/25/2019 18:29	WG1271705
Dibromomethane	U		0.117	0.500	1	04/25/2019 18:29	WG1271705
1,2-Dichlorobenzene	U		0.101	0.500	1	04/25/2019 18:29	WG1271705
1,3-Dichlorobenzene	U		0.130	0.500	1	04/25/2019 18:29	WG1271705
1,4-Dichlorobenzene	U		0.121	0.500	1	04/25/2019 18:29	WG1271705
Dichlorodifluoromethane	U		0.127	2.50	1	04/25/2019 18:29	WG1271705
1,1-Dichloroethane	U		0.114	0.500	1	04/25/2019 18:29	WG1271705
1,2-Dichloroethane	U		0.108	0.500	1	04/25/2019 18:29	WG1271705
1,1-Dichloroethene	U		0.188	0.500	1	04/25/2019 18:29	WG1271705
cis-1,2-Dichloroethene	4.09		0.0933	0.500	1	04/25/2019 18:29	WG1271705
trans-1,2-Dichloroethene	0.472	<u>J</u>	0.152	0.500	1	04/25/2019 18:29	WG1271705
1,2-Dichloropropane	U		0.190	0.500	1	04/25/2019 18:29	WG1271705
1,1-Dichloropropene	U		0.128	0.500	1	04/25/2019 18:29	WG1271705
1,3-Dichloropropane	U		0.147	1.00	1	04/25/2019 18:29	WG1271705
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/25/2019 18:29	WG1271705
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/25/2019 18:29	WG1271705
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/25/2019 18:29	WG1271705
2,2-Dichloropropane	U		0.0929	0.500	1	04/25/2019 18:29	WG1271705
Di-isopropyl ether	U		0.0924	0.500	1	04/25/2019 18:29	WG1271705
Ethylbenzene	U		0.158	0.500	1	04/25/2019 18:29	WG1271705
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/25/2019 18:29	WG1271705
2-Hexanone	U		0.757	5.00	1	04/25/2019 18:29	WG1271705
n-Hexane	U		0.305	5.00	1	04/25/2019 18:29	WG1271705
Iodomethane	U		0.377	10.0	1	04/25/2019 18:29	WG1271705
Isopropylbenzene	U		0.126	0.500	1	04/25/2019 18:29	WG1271705
p-Isopropyltoluene	U		0.138	0.500	1	04/25/2019 18:29	WG1271705
2-Butanone (MEK)	U		1.28	5.00	1	04/25/2019 18:29	WG1271705
Methylene Chloride	U		1.07	2.50	1	04/25/2019 18:29	WG1271705
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 18:29	WG1271705
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 18:29	WG1271705
Naphthalene	U		0.174	2.50	1	04/25/2019 18:29	WG1271705
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 18:29	WG1271705
Styrene	U		0.117	0.500	1	04/25/2019 18:29	WG1271705
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 18:29	WG1271705
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 18:29	WG1271705
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 18:29	WG1271705
Tetrachloroethene	U		0.199	0.500	1	04/25/2019 18:29	WG1271705
Toluene	U		0.412	0.500	1	04/25/2019 18:29	WG1271705
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 18:29	WG1271705
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 18:29	WG1271705
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 18:29	WG1271705
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 18:29	WG1271705
Trichloroethene	0.158	<u>J</u>	0.153	0.500	1	04/25/2019 18:29	WG1271705
Trichlorofluoromethane	U	<u>J0</u>	0.130	2.50	1	04/25/2019 18:29	WG1271705
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 18:29	WG1271705
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 18:29	WG1271705
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 18:29	WG1271705
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 18:29	WG1271705

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- 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	
Vinyl acetate	U		0.645	5.00	1	04/25/2019 18:29	WG1271705	¹ Cp
Vinyl chloride	7.30	<u>J0</u>	0.118	0.500	1	04/25/2019 18:29	WG1271705	² Tc
Xylenes, Total	U		0.316	1.50	1	04/25/2019 18:29	WG1271705	³ Ss
(S) Toluene-d8	101			80.0-120		04/25/2019 18:29	WG1271705	⁴ Cn
(S) 4-Bromofluorobenzene	104			77.0-126		04/25/2019 18:29	WG1271705	⁵ Sr
(S) 1,2-Dichloroethane-d4	95.9			70.0-130		04/25/2019 18:29	WG1271705	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	04/25/2019 12:56	WG1271515
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	111			78.0-120		04/25/2019 12:56	WG1271515

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
Acetone	U	J3 J4	1.05	25.0	1	04/25/2019 16:08	WG1271705
Acrylonitrile	U		0.873	5.00	1	04/25/2019 16:08	WG1271705
Benzene	U		0.0896	0.500	1	04/25/2019 16:08	WG1271705
Bromobenzene	U		0.133	0.500	1	04/25/2019 16:08	WG1271705
Bromodichloromethane	U		0.0800	0.500	1	04/25/2019 16:08	WG1271705
Bromoform	U		0.145	0.500	1	04/25/2019 16:08	WG1271705
Bromomethane	U	J0	0.186	0.500	1	04/25/2019 16:08	WG1271705
n-Butylbenzene	U		0.143	0.500	1	04/25/2019 16:08	WG1271705
sec-Butylbenzene	U		0.134	0.500	1	04/25/2019 16:08	WG1271705
tert-Butylbenzene	U		0.183	0.500	1	04/25/2019 16:08	WG1271705
Carbon disulfide	U		0.101	0.500	1	04/25/2019 16:08	WG1271705
Carbon tetrachloride	U		0.159	0.500	1	04/25/2019 16:08	WG1271705
Chlorobenzene	U		0.140	0.500	1	04/25/2019 16:08	WG1271705
Chlorodibromomethane	U		0.128	0.500	1	04/25/2019 16:08	WG1271705
Chloroethane	U	J0	0.141	2.50	1	04/25/2019 16:08	WG1271705
Chloroform	U		0.0860	0.500	1	04/25/2019 16:08	WG1271705
Chloromethane	U		0.153	1.25	1	04/25/2019 16:08	WG1271705
2-Chlorotoluene	U		0.111	0.500	1	04/25/2019 16:08	WG1271705
4-Chlorotoluene	U		0.0972	0.500	1	04/25/2019 16:08	WG1271705
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/25/2019 16:08	WG1271705
1,2-Dibromoethane	U		0.193	0.500	1	04/25/2019 16:08	WG1271705
Dibromomethane	U		0.117	0.500	1	04/25/2019 16:08	WG1271705
1,2-Dichlorobenzene	U		0.101	0.500	1	04/25/2019 16:08	WG1271705
1,3-Dichlorobenzene	U		0.130	0.500	1	04/25/2019 16:08	WG1271705
1,4-Dichlorobenzene	U		0.121	0.500	1	04/25/2019 16:08	WG1271705
Dichlorodifluoromethane	U		0.127	2.50	1	04/25/2019 16:08	WG1271705
1,1-Dichloroethane	U		0.114	0.500	1	04/25/2019 16:08	WG1271705
1,2-Dichloroethane	U		0.108	0.500	1	04/25/2019 16:08	WG1271705
1,1-Dichloroethene	U		0.188	0.500	1	04/25/2019 16:08	WG1271705
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/25/2019 16:08	WG1271705
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/25/2019 16:08	WG1271705
1,2-Dichloropropane	U		0.190	0.500	1	04/25/2019 16:08	WG1271705
1,1-Dichloropropene	U		0.128	0.500	1	04/25/2019 16:08	WG1271705
1,3-Dichloropropane	U		0.147	1.00	1	04/25/2019 16:08	WG1271705
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/25/2019 16:08	WG1271705
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/25/2019 16:08	WG1271705
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/25/2019 16:08	WG1271705
2,2-Dichloropropane	U		0.0929	0.500	1	04/25/2019 16:08	WG1271705
Di-isopropyl ether	U		0.0924	0.500	1	04/25/2019 16:08	WG1271705
Ethylbenzene	U		0.158	0.500	1	04/25/2019 16:08	WG1271705
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/25/2019 16:08	WG1271705
2-Hexanone	U		0.757	5.00	1	04/25/2019 16:08	WG1271705
n-Hexane	U		0.305	5.00	1	04/25/2019 16:08	WG1271705
Iodomethane	U		0.377	10.0	1	04/25/2019 16:08	WG1271705
Isopropylbenzene	U		0.126	0.500	1	04/25/2019 16:08	WG1271705
p-Isopropyltoluene	U		0.138	0.500	1	04/25/2019 16:08	WG1271705
2-Butanone (MEK)	U		1.28	5.00	1	04/25/2019 16:08	WG1271705



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	04/25/2019 16:08	WG1271705	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 16:08	WG1271705	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 16:08	WG1271705	³ Ss
Naphthalene	U		0.174	2.50	1	04/25/2019 16:08	WG1271705	
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 16:08	WG1271705	
Styrene	U		0.117	0.500	1	04/25/2019 16:08	WG1271705	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 16:08	WG1271705	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 16:08	WG1271705	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 16:08	WG1271705	
Tetrachloroethene	U		0.199	0.500	1	04/25/2019 16:08	WG1271705	
Toluene	U		0.412	0.500	1	04/25/2019 16:08	WG1271705	⁶ Qc
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 16:08	WG1271705	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 16:08	WG1271705	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 16:08	WG1271705	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 16:08	WG1271705	
Trichloroethene	U		0.153	0.500	1	04/25/2019 16:08	WG1271705	
Trichlorofluoromethane	U	J0	0.130	2.50	1	04/25/2019 16:08	WG1271705	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 16:08	WG1271705	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 16:08	WG1271705	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 16:08	WG1271705	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 16:08	WG1271705	
Vinyl acetate	U		0.645	5.00	1	04/25/2019 16:08	WG1271705	
Vinyl chloride	U	J0	0.118	0.500	1	04/25/2019 16:08	WG1271705	
Xylenes, Total	U		0.316	1.50	1	04/25/2019 16:08	WG1271705	
(S) Toluene-d8	100			80.0-120		04/25/2019 16:08	WG1271705	
(S) 4-Bromofluorobenzene	104			77.0-126		04/25/2019 16:08	WG1271705	
(S) 1,2-Dichloroethane-d4	92.3			70.0-130		04/25/2019 16:08	WG1271705	

L1091958-01,02,04

Method Blank (MB)

(MB) R3406989-1 04/30/19 16:41

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Alkalinity	3360	J	2710	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1091944-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1091944-01 04/30/19 16:47 • (DUP) R3406989-2 04/30/19 16:54

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Alkalinity	302000	304000	1	0.663		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

L1092381-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1092381-01 04/30/19 19:25 • (DUP) R3406989-4 04/30/19 19:32

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Alkalinity	1540000	1520000	1	1.19		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3406989-3 04/30/19 17:52

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Alkalinity	100000	102000	102	85.0-115	

Sample Narrative:

LCS: Endpoint pH 4.5

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



L1091958-01,02,04

Method Blank (MB)

(MB) R3405147-1 04/24/19 16:57

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		51.9	1000
Nitrate	26.3	J	22.7	100
Sulfate	U		77.4	5000

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1091917-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1091917-03 04/24/19 18:23 • (DUP) R3405147-3 04/24/19 18:37

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	8410	8430	1	0.285		15
Nitrate	893	900	1	0.714		15
Sulfate	7530	7540	1	0.0770		15

⁹Sc

L1091941-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1091941-04 04/24/19 21:44 • (DUP) R3405147-6 04/24/19 21:59

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	U	0.000	1	0.000		15
Nitrate	U	0.000	1	0.000		15
Sulfate	U	0.000	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3405147-2 04/24/19 17:12

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40200	101	80.0-120	
Nitrate	8000	8290	104	80.0-120	
Sulfate	40000	41100	103	80.0-120	



L1091958-01,02,04

L1091917-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1091917-03 04/24/19 18:23 • (MS) R3405147-4 04/24/19 18:51 • (MSD) R3405147-5 04/24/19 19:06

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Chloride	50000	8410	58800	58300	101	99.7	1	80.0-120			0.943	15
Nitrate	5000	893	5880	5830	99.6	98.7	1	80.0-120			0.777	15
Sulfate	50000	7530	57300	56700	99.5	98.4	1	80.0-120			0.931	15

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1091941-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1091941-04 04/24/19 21:44 • (MS) R3405147-7 04/24/19 22:13

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>
Chloride	50000	U	50700	101	1	80.0-120	
Nitrate	5000	U	5050	101	1	80.0-120	
Sulfate	50000	U	50400	101	1	80.0-120	



L1091958-01,02,04

Method Blank (MB)

(MB) R3405166-1 04/24/19 15:02

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	485	J	102	1000

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1091944-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1091944-05 04/24/19 17:18 • (DUP) R3405166-3 04/24/19 17:39

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
TOC (Total Organic Carbon)	117000	121000	5	2.77		20

Laboratory Control Sample (LCS)

(LCS) R3405166-2 04/24/19 15:38

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
TOC (Total Organic Carbon)	75000	70300	93.7	85.0-115	

⁷Gl⁸Al

L1091958-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1091958-04 04/24/19 19:53 • (MS) R3405166-4 04/24/19 20:12 • (MSD) R3405166-5 04/24/19 20:31

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
TOC (Total Organic Carbon)	50000	11400	59200	58100	95.5	93.3	1	80.0-120			1.83	20

WG1271171

Metals (ICPMS) by Method 6020B

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.



L1091958-01,02,04

Method Blank (MB)

(MB) R3406516-1 04/30/19 00:01

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Iron	U		15.0	100
Manganese	U		0.250	5.00

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3406516-2 04/30/19 00:06 • (LCSD) R3406516-3 04/30/19 00:12

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
Iron	500	480	486	96.1	97.1	80.0-120			1.12	20
Manganese	50.0	45.7	46.5	91.3	93.0	80.0-120			1.80	20

L1092138-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1092138-03 04/30/19 00:17 • (MS) R3406516-5 04/30/19 00:28 • (MSD) R3406516-6 04/30/19 00:33

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Iron	500	369	842	869	94.6	100	1	75.0-125			3.23	20
Manganese	50.0	17.0	62.8	65.9	91.6	97.9	1	75.0-125			4.85	20

ACCOUNT:

PES Environmental, Inc.- WA

PROJECT:

1413.001.05.601

SDG:

L1091958

DATE/TIME:

05/08/19 13:53

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Method Blank (MB)

(MB) R3405596-2 04/25/19 09:45

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)	111			78.0-120

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3405596-1 04/25/19 08:57

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	5310	96.5	70.0-124	
(S)-a,a,a-Trifluorotoluene(FID)		103		78.0-120	



L1091958-01,02,04

Method Blank (MB)

(MB) R3405886-1 04/26/19 13:31

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1091915-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1091915-02 04/26/19 13:40 • (DUP) R3405886-2 04/26/19 14:13

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Methane	248	245	1	1.48		20
Ethane	U	0.000	1	0.000		20
Ethene	U	0.000	1	0.000		20

¹⁰Sc

L1091952-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1091952-01 04/26/19 14:46 • (DUP) R3405886-3 04/26/19 15:02

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Methane	ND	0.000	1	0.000		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

¹¹Sc

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

(LCS) R3405886-4 04/26/19 15:04 • (LCSD) R3405886-5 04/26/19 15:10

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
Methane	67.8	75.7	76.9	112	113	85.0-115			1.59	20
Ethane	129	121	119	93.4	92.5	85.0-115			0.991	20
Ethene	127	120	121	94.1	95.5	85.0-115			1.51	20

¹²Sc

L1091958-01

Method Blank (MB)

(MB) R3406766-1 04/30/19 13:42

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Methane	U		0.287	0.678

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1092207-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1092207-05 04/30/19 14:07 • (DUP) R3406766-2 04/30/19 14:40

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Methane	U	0.000	1	0.000		20

L1092404-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1092404-03 04/30/19 14:51 • (DUP) R3406766-3 04/30/19 15:31

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Methane	U	0.000	1	0.000		20

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

(LCS) R3406766-4 04/30/19 15:33 • (LCSD) R3406766-5 04/30/19 15:37

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 %
Methane	67.8	76.5	77.6	113	114	85.0-115			1.40	20

L1091958-04

Method Blank (MB)

(MB) R3407462-1 05/02/19 08:41

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Methane	U		0.287	0.678

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1092426-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1092426-09 05/02/19 09:09 • (DUP) R3407462-2 05/02/19 10:16

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Methane	U	0.000	1	0.000		20

L1092440-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1092440-05 05/02/19 11:12 • (DUP) R3407462-3 05/02/19 11:36

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Methane	1720	1710	1	0.589		20

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

(LCS) R3407462-4 05/02/19 11:40 • (LCSD) R3407462-5 05/02/19 11:52

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 %
Methane	67.8	77.2	77.1	114	114	85.0-115			0.205	20

[L1091958-01,02,03,04,05](#)

Method Blank (MB)

(MB) R3406794-3 04/25/19 10:03

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	1 Cp
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	

L1091958-01,02,03,04,05

Method Blank (MB)

(MB) R3406794-3 04/25/19 10:03

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	
Ethylbenzene	U		0.158	0.500	¹ Cp
Hexachloro-1,3-butadiene	0.239	J	0.157	1.00	² Tc
2-Hexanone	U		0.757	5.00	³ Ss
n-Hexane	U		0.305	5.00	⁴ Cn
Iodomethane	U		0.377	10.0	⁵ Sr
Isopropylbenzene	U		0.126	0.500	⁶ Qc
p-Isopropyltoluene	U		0.138	0.500	⁷ Gl
2-Butanone (MEK)	U		1.28	5.00	⁸ Al
Methylene Chloride	U		1.07	2.50	⁹ Sc
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	
(S) Toluene-d8	101			80.0-120	
(S) 4-Bromofluorobenzene	105			77.0-126	
(S) 1,2-Dichloroethane-d4	94.7			70.0-130	



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

(LCS) R3406794-1 04/25/19 09:03 • (LCSD) R3406794-2 04/25/19 09:23

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 %
Acetone	125	205	144	164	115	19.0-160	J4	J3	34.8	27
Acrylonitrile	125	160	156	128	125	55.0-149			2.36	20
Benzene	25.0	26.0	26.1	104	104	70.0-123			0.383	20
Bromobenzene	25.0	23.4	23.6	93.5	94.5	73.0-121			1.10	20
Bromodichloromethane	25.0	22.3	22.3	89.3	89.2	75.0-120			0.142	20
Bromoform	25.0	23.5	23.3	94.2	93.0	76.0-122			1.20	20
Bromomethane	25.0	26.4	27.0	106	108	68.0-132			2.26	20
n-Butylbenzene	25.0	17.7	17.6	70.8	70.5	10.0-160			0.433	25
sec-Butylbenzene	25.0	23.2	22.8	92.7	91.2	73.0-125			1.67	20
tert-Butylbenzene	25.0	23.9	23.3	95.6	93.1	75.0-125			2.69	20
Carbon disulfide	25.0	24.5	24.0	98.0	96.1	76.0-124			1.94	20
Carbon tetrachloride	25.0	28.4	31.0	113	124	61.0-128			8.82	20
Chlorobenzene	25.0	23.9	23.9	95.5	95.5	68.0-126			0.0359	20
Chlorodibromomethane	25.0	23.5	24.0	94.2	96.0	77.0-125			0.523	20
Chloroethane	25.0	15.0	17.2	60.1	69.0	47.0-150			13.7	20
Chlorofrom	25.0	22.0	21.9	87.8	87.8	73.0-120			0.0352	20
Chloromethane	25.0	26.3	26.2	105	105	41.0-142			0.338	20
2-Chlorotoluene	25.0	23.1	22.8	92.6	91.0	76.0-123			1.66	20
4-Chlorotoluene	25.0	23.4	23.2	93.5	93.0	75.0-122			0.522	20
1,2-Dibromo-3-Chloropropane	25.0	28.4	27.7	114	111	58.0-134			2.76	20
1,2-Dibromoethane	25.0	23.3	23.7	93.0	94.8	80.0-122			1.90	20
Dibromomethane	25.0	22.7	22.5	90.7	90.0	80.0-120			0.716	20
1,2-Dichlorobenzene	25.0	23.9	23.4	95.5	93.5	79.0-121			2.08	20
1,3-Dichlorobenzene	25.0	23.5	23.2	94.0	93.0	79.0-120			1.05	20
1,4-Dichlorobenzene	25.0	22.7	22.5	91.0	89.9	79.0-120			1.15	20
Dichlorodifluoromethane	25.0	26.3	26.2	105	105	51.0-149			0.238	20
1,1-Dichloroethane	25.0	24.8	24.6	99.4	98.3	70.0-126			1.12	20
1,2-Dichloroethane	25.0	20.8	20.8	83.1	83.1	70.0-128			0.0641	20
1,1-Dichloroethene	25.0	25.0	25.4	100	102	71.0-124			1.62	20
cis-1,2-Dichloroethene	25.0	23.9	23.7	95.7	94.7	73.0-120			1.11	20
trans-1,2-Dichloroethene	25.0	24.9	24.9	99.6	99.4	73.0-120			0.115	20
1,2-Dichloropropane	25.0	26.5	26.5	106	106	77.0-125			0.267	20
1,1-Dichloropropene	25.0	24.9	24.8	99.4	99.1	74.0-126			0.298	20
1,3-Dichloropropane	25.0	24.6	25.1	98.6	100	80.0-120			1.86	20
cis-1,3-Dichloropropene	25.0	24.0	24.2	96.2	96.7	80.0-123			0.513	20
trans-1,3-Dichloropropene	25.0	23.3	23.5	93.2	94.1	78.0-124			0.936	20
trans-1,4-Dichloro-2-butene	25.0	20.7	19.7	83.0	78.6	33.0-144			5.42	20
2,2-Dichloropropane	25.0	32.0	31.4	128	126	58.0-130			2.05	20
Di-isopropyl ether	25.0	27.7	27.6	111	110	58.0-138			0.601	20

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



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

(LCS) R3406794-1 04/25/19 09:03 • (LCSD) R3406794-2 04/25/19 09:23

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 %
Ethylbenzene	25.0	24.4	24.7	97.5	98.9	79.0-123			1.46	20
Hexachloro-1,3-butadiene	25.0	31.2	30.4	125	122	54.0-138			2.57	20
2-Hexanone	125	147	146	117	117	67.0-149			0.700	20
n-Hexane	25.0	29.2	28.6	117	114	57.0-133			2.29	20
Iodomethane	125	134	128	107	102	33.0-147			4.64	26
Isopropylbenzene	25.0	25.6	26.1	103	104	76.0-127			1.66	20
p-Isopropyltoluene	25.0	24.2	23.8	96.8	95.1	76.0-125			1.85	20
2-Butanone (MEK)	125	165	156	132	125	44.0-160			5.34	20
Methylene Chloride	25.0	24.7	24.5	98.8	98.1	67.0-120			0.726	20
4-Methyl-2-pentanone (MIBK)	125	143	142	114	114	68.0-142			0.369	20
Methyl tert-butyl ether	25.0	23.7	23.4	94.7	93.6	68.0-125			1.16	20
Naphthalene	25.0	25.1	24.5	100	98.1	54.0-135			2.40	20
n-Propylbenzene	25.0	23.0	23.0	92.1	91.9	77.0-124			0.261	20
Styrene	25.0	26.6	27.4	106	110	73.0-130			3.12	20
1,1,1,2-Tetrachloroethane	25.0	24.1	24.0	96.2	96.2	75.0-125			0.0553	20
1,1,2,2-Tetrachloroethane	25.0	22.8	22.7	91.3	90.8	65.0-130			0.553	20
1,1,2-Trichlorotrifluoroethane	25.0	23.4	24.1	93.6	96.5	69.0-132			3.14	20
Tetrachloroethene	25.0	25.8	25.8	103	103	72.0-132			0.287	20
Toluene	25.0	25.9	26.1	103	104	79.0-120			0.981	20
1,2,3-Trichlorobenzene	25.0	25.7	24.4	103	97.5	50.0-138			5.36	20
1,2,4-Trichlorobenzene	25.0	26.6	25.2	107	101	57.0-137			5.53	20
1,1,1-Trichloroethane	25.0	23.7	23.8	94.9	95.3	73.0-124			0.433	20
1,1,2-Trichloroethane	25.0	22.8	22.6	91.3	90.4	80.0-120			0.971	20
Trichloroethene	25.0	25.1	25.2	100	101	78.0-124			0.572	20
Trichlorofluoromethane	25.0	15.2	16.5	60.9	65.9	59.0-147			7.93	20
1,2,3-Trichloropropane	25.0	21.1	20.9	84.4	83.5	73.0-130			1.11	20
1,2,4-Trimethylbenzene	25.0	22.8	22.6	91.2	90.5	76.0-121			0.774	20
1,2,3-Trimethylbenzene	25.0	22.4	21.8	89.8	87.2	77.0-120			2.96	20
1,3,5-Trimethylbenzene	25.0	23.4	22.6	93.5	90.5	76.0-122			3.16	20
Vinyl acetate	125	119	120	95.4	95.7	11.0-160			0.361	20
Vinyl chloride	25.0	17.8	17.9	71.3	71.7	67.0-131			0.499	20
Xylenes, Total	75.0	74.9	75.0	99.9	100	79.0-123			0.133	20
(S) Toluene-d8				101	100	80.0-120				
(S) 4-Bromofluorobenzene				105	107	77.0-126				
(S) 1,2-Dichloroethane-d4				92.7	99.9	70.0-130				

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



Method Blank (MB)

(MB) R3406890-2 05/01/19 01:15

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
cis-1,2-Dichloroethene	U		0.0933	0.500
(S) Toluene-d8	104			80.0-120
(S) 4-Bromofluorobenzene	98.3			77.0-126
(S) 1,2-Dichloroethane-d4	102			70.0-130

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3406890-1 05/01/19 00:32

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
cis-1,2-Dichloroethene	25.0	29.9	120	73.0-120	
(S) Toluene-d8			102	80.0-120	
(S) 4-Bromofluorobenzene			100	77.0-126	
(S) 1,2-Dichloroethane-d4			103	70.0-130	



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.	¹ Cp
ND	Not detected at the Reporting Limit (or MDL where applicable).	² Tc
RDL	Reported Detection Limit.	³ Ss
Rec.	Recovery.	⁴ Cn
RPD	Relative Percent Difference.	⁵ Sr
SDG	Sample Delivery Group.	⁶ Qc
(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.	⁷ GI
U	Not detected at the Reporting Limit (or MDL where applicable).	⁸ AI
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	⁹ SC
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 met 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.



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
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia ¹	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky ^{1,6}	90010
Kentucky ²	16
Louisiana	AI30792
Louisiana ¹	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LA000356
South Carolina	84004
South Dakota	n/a
Tennessee ^{1,4}	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

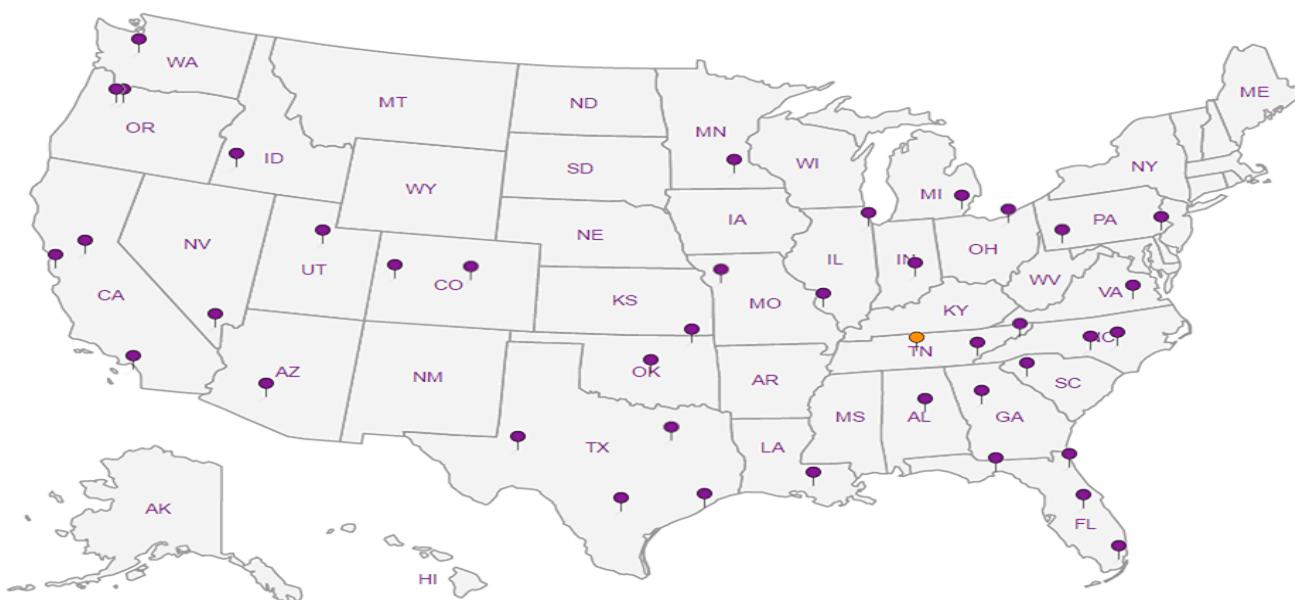
A2LA – ISO 17025	1461.01
A2LA – ISO 17025 ⁵	1461.02
Canada	1461.01
EPA-Crypto	TN00003

AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

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.



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

Brian Ford

From: Kim Vik <KVik@pesenv.com>
Sent: Wednesday, April 24, 2019 11:51 AM
To: Brian Ford
Cc: Bill Haldeman; Karsten Springstead
Subject: American Linen - Groundwater Samples - COC - CORRECTION
Attachments: COC_20190424.pdf

Importance: High

Hi Brian,
I was reviewing the COC for the samples that were shipped to you yesterday (see attached) and I need to make some corrections. They are shown on the mark up attached, but will write them here too:

Sample MW-155-042319 should be analyzed for VOCs and gasoline only
Sample MW103-042219 should be analyzed for VOCs only
Sample MW111-042219 should be analyzed for VOCs only
Sample MW104-042319 should also be analyzed for gasoline (add that analysis)
Sample MW105-042319 should also be analyzed for gasoline (add that analysis)
Sample MW147-042319 should also be analyzed for gasoline (add that analysis)

Let me know if you have any questions.

Thanks!

Kim Vik, L.G.
Senior Geologist

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Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	799000		2710	20000	1	04/30/2019 17:24	WG1273427

Sample Narrative:

L1091958-01 WG1273427: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	86700		51.9	1000	1	04/24/2019 23:40	WG1271082
Nitrate	U		22.7	100	1	04/24/2019 23:40	WG1271082
Sulfate	U		77.4	5000	1	04/24/2019 23:40	WG1271082

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	26100		102	1000	1	04/24/2019 17:57	WG1271096

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	13400		300	2000	20	05/07/2019 00:48	WG1271171
Manganese	3430		5.00	100	20	05/07/2019 00:48	WG1271171

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	429	J+	31.6	100	1	04/25/2019 15:43	WG1271515
(S) a,a,a-Trifluorotoluene(FID)	111			78.0-120		04/25/2019 15:43	WG1271515

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	10600		5.74	13.6	20	04/30/2019 14:04	WG1273649
Ethane	45.2		0.296	1.29	1	04/26/2019 14:48	WG1271298
Ethene	37.4		0.422	1.27	1	04/26/2019 14:48	WG1271298

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
Acetone	2.25	J	J J0 J3 J4	1.05	25.0	1	04/25/2019 17:28	WG1271705
Acrylonitrile	U			0.873	5.00	1	04/25/2019 17:28	WG1271705
Benzene	U			0.0896	0.500	1	04/25/2019 17:28	WG1271705
Bromobenzene	U			0.133	0.500	1	04/25/2019 17:28	WG1271705
Bromodichloromethane	U			0.0800	0.500	1	04/25/2019 17:28	WG1271705
Bromochloromethane	U			0.145	0.500	1	04/25/2019 17:28	WG1271705
Bromoform	U			0.186	0.500	1	04/25/2019 17:28	WG1271705
Bromomethane	U	UJ	J0	0.157	2.50	1	04/25/2019 17:28	WG1271705
n-Butylbenzene	U			0.143	0.500	1	04/25/2019 17:28	WG1271705
sec-Butylbenzene	U			0.134	0.500	1	04/25/2019 17:28	WG1271705
tert-Butylbenzene	U			0.183	0.500	1	04/25/2019 17:28	WG1271705
Carbon disulfide	0.160	J	J	0.101	0.500	1	04/25/2019 17:28	WG1271705
Carbon tetrachloride	U			0.159	0.500	1	04/25/2019 17:28	WG1271705

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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
Chlorobenzene	U		0.140	0.500	1	04/25/2019 17:28	WG1271705
Chlorodibromomethane	U		0.128	0.500	1	04/25/2019 17:28	WG1271705
Chloroethane	U	UJ JO	0.141	2.50	1	04/25/2019 17:28	WG1271705
Chloroform	U		0.0860	0.500	1	04/25/2019 17:28	WG1271705
Chloromethane	U		0.153	1.25	1	04/25/2019 17:28	WG1271705
2-Chlorotoluene	U		0.111	0.500	1	04/25/2019 17:28	WG1271705
4-Chlorotoluene	U		0.0972	0.500	1	04/25/2019 17:28	WG1271705
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/25/2019 17:28	WG1271705
1,2-Dibromoethane	U		0.193	0.500	1	04/25/2019 17:28	WG1271705
Dibromomethane	U		0.117	0.500	1	04/25/2019 17:28	WG1271705
1,2-Dichlorobenzene	U		0.101	0.500	1	04/25/2019 17:28	WG1271705
1,3-Dichlorobenzene	U		0.130	0.500	1	04/25/2019 17:28	WG1271705
1,4-Dichlorobenzene	U		0.121	0.500	1	04/25/2019 17:28	WG1271705
Dichlorodifluoromethane	U		0.127	2.50	1	04/25/2019 17:28	WG1271705
1,1-Dichloroethane	U		0.114	0.500	1	04/25/2019 17:28	WG1271705
1,2-Dichloroethane	U		0.108	0.500	1	04/25/2019 17:28	WG1271705
1,1-Dichloroethene	1.96		0.188	0.500	1	04/25/2019 17:28	WG1271705
cis-1,2-Dichloroethene	672		0.933	5.00	10	05/01/2019 02:42	WG1274056
trans-1,2-Dichloroethene	2.35		0.152	0.500	1	04/25/2019 17:28	WG1271705
1,2-Dichloropropane	U		0.190	0.500	1	04/25/2019 17:28	WG1271705
1,1-Dichloropropene	U		0.128	0.500	1	04/25/2019 17:28	WG1271705
1,3-Dichloropropane	U		0.147	1.00	1	04/25/2019 17:28	WG1271705
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/25/2019 17:28	WG1271705
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/25/2019 17:28	WG1271705
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/25/2019 17:28	WG1271705
2,2-Dichloropropane	U		0.0929	0.500	1	04/25/2019 17:28	WG1271705
Di-isopropyl ether	U		0.0924	0.500	1	04/25/2019 17:28	WG1271705
Ethylbenzene	U		0.158	0.500	1	04/25/2019 17:28	WG1271705
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/25/2019 17:28	WG1271705
2-Hexanone	U		0.757	5.00	1	04/25/2019 17:28	WG1271705
n-Hexane	U		0.305	5.00	1	04/25/2019 17:28	WG1271705
Iodomethane	U		0.377	10.0	1	04/25/2019 17:28	WG1271705
Isopropylbenzene	U		0.126	0.500	1	04/25/2019 17:28	WG1271705
p-Isopropyltoluene	U		0.138	0.500	1	04/25/2019 17:28	WG1271705
2-Butanone (MEK)	U		1.28	5.00	1	04/25/2019 17:28	WG1271705
Methylene Chloride	U		1.07	2.50	1	04/25/2019 17:28	WG1271705
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 17:28	WG1271705
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 17:28	WG1271705
Naphthalene	U		0.174	2.50	1	04/25/2019 17:28	WG1271705
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 17:28	WG1271705
Styrene	U		0.117	0.500	1	04/25/2019 17:28	WG1271705
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 17:28	WG1271705
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 17:28	WG1271705
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 17:28	WG1271705
Tetrachloroethene	U		0.199	0.500	1	04/25/2019 17:28	WG1271705
Toluene	0.560		0.412	0.500	1	04/25/2019 17:28	WG1271705
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 17:28	WG1271705
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 17:28	WG1271705
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 17:28	WG1271705
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 17:28	WG1271705
Trichloroethene	40.1		0.153	0.500	1	04/25/2019 17:28	WG1271705
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	04/25/2019 17:28	WG1271705
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 17:28	WG1271705
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 17:28	WG1271705
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 17:28	WG1271705
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 17:28	WG1271705

JC 5/13/19

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

W-MW-02-042319

Collected date/time: 04/23/19 07:45

SAMPLE RESULTS - 01

L1091958

ONE LAB. NATIONWIDE.



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Vinyl acetate	U		0.645	5.00	1	04/25/2019 17:28	WG1271705	
Vinyl chloride	81.0	J	JO	0.118	0.500	1	04/25/2019 17:28	WG1271705
Xylenes, Total	U			0.316	1.50	1	04/25/2019 17:28	WG1271705
(S) Toluene-d8	100				80.0-120		04/25/2019 17:28	WG1271705
(S) Toluene-d8	103				80.0-120		05/01/2019 02:42	WG1274056
(S) 4-Bromofluorobenzene	106				77.0-126		04/25/2019 17:28	WG1271705
(S) 4-Bromofluorobenzene	99.6				77.0-126		05/01/2019 02:42	WG1274056
(S) 1,2-Dichloroethane-d4	93.5				70.0-130		04/25/2019 17:28	WG1271705
(S) 1,2-Dichloroethane-d4	100				70.0-130		05/01/2019 02:42	WG1274056

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc

JC 5/13/19



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	227000		2710	20000	1	04/30/2019 17:31	WG1273427

Sample Narrative:

L1091958-02 WG1273427: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	28100		51.9	1000	1	04/25/2019 00:09	WG1271082
Nitrate	2770		22.7	100	1	04/25/2019 00:09	WG1271082
Sulfate	44400		77.4	5000	1	04/25/2019 00:09	WG1271082

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	2710	B	102	1000	1	04/24/2019 18:18	WG1271096

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	315		15.0	100	1	05/06/2019 00:10	WG1271171
Manganese	63.7		0.250	5.00	1	05/06/2019 00:10	WG1271171

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/25/2019 16:07	WG1271515
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	112			78.0-120		04/25/2019 16:07	WG1271515

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	U		0.287	0.678	1	04/26/2019 14:51	WG1271298
Ethane	U		0.296	1.29	1	04/26/2019 14:51	WG1271298
Ethene	U		0.422	1.27	1	04/26/2019 14:51	WG1271298

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
Acetone	2.03	J	J J0 J3 J4	1.05	25.0	1	04/25/2019 17:48	WG1271705
Acrylonitrile	U			0.873	5.00	1	04/25/2019 17:48	WG1271705
Benzene	U			0.0896	0.500	1	04/25/2019 17:48	WG1271705
Bromobenzene	U			0.133	0.500	1	04/25/2019 17:48	WG1271705
Bromodichloromethane	U			0.0800	0.500	1	04/25/2019 17:48	WG1271705
Bromoform	U			0.145	0.500	1	04/25/2019 17:48	WG1271705
Bromomethane	U	UJ	J0	0.157	2.50	1	04/25/2019 17:48	WG1271705
n-Butylbenzene	U			0.143	0.500	1	04/25/2019 17:48	WG1271705
sec-Butylbenzene	U			0.134	0.500	1	04/25/2019 17:48	WG1271705
tert-Butylbenzene	U			0.183	0.500	1	04/25/2019 17:48	WG1271705
Carbon disulfide	U			0.101	0.500	1	04/25/2019 17:48	WG1271705
Carbon tetrachloride	U			0.159	0.500	1	04/25/2019 17:48	WG1271705

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

Analyte	Result ug/l	Qualifier UJ JO	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	04/25/2019 17:48	WG1271705	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/25/2019 17:48	WG1271705	² Tc
Chloroethane	U	UJ JO	0.141	2.50	1	04/25/2019 17:48	WG1271705	³ Ss
Chloroform	U		0.0860	0.500	1	04/25/2019 17:48	WG1271705	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/25/2019 17:48	WG1271705	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/25/2019 17:48	WG1271705	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/25/2019 17:48	WG1271705	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/25/2019 17:48	WG1271705	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	04/25/2019 17:48	WG1271705	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/25/2019 17:48	WG1271705	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/25/2019 17:48	WG1271705	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/25/2019 17:48	WG1271705	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/25/2019 17:48	WG1271705	
Dichlorodifluoromethane	U		0.127	2.50	1	04/25/2019 17:48	WG1271705	
1,1-Dichloroethane	U		0.114	0.500	1	04/25/2019 17:48	WG1271705	
1,2-Dichloroethane	U		0.108	0.500	1	04/25/2019 17:48	WG1271705	
1,1-Dichloroethene	U		0.188	0.500	1	04/25/2019 17:48	WG1271705	
cis-1,2-Dichloroethene	7.57		0.0933	0.500	1	05/01/2019 01:36	WG1274056	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/25/2019 17:48	WG1271705	
1,2-Dichloropropane	U		0.190	0.500	1	04/25/2019 17:48	WG1271705	
1,1-Dichloropropene	U		0.128	0.500	1	04/25/2019 17:48	WG1271705	
1,3-Dichloropropane	U		0.147	1.00	1	04/25/2019 17:48	WG1271705	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/25/2019 17:48	WG1271705	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/25/2019 17:48	WG1271705	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/25/2019 17:48	WG1271705	
2,2-Dichloropropane	U		0.0929	0.500	1	04/25/2019 17:48	WG1271705	
Di-isopropyl ether	U		0.0924	0.500	1	04/25/2019 17:48	WG1271705	
Ethylbenzene	U		0.158	0.500	1	04/25/2019 17:48	WG1271705	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/25/2019 17:48	WG1271705	
2-Hexanone	U		0.757	5.00	1	04/25/2019 17:48	WG1271705	
n-Hexane	U		0.305	5.00	1	04/25/2019 17:48	WG1271705	
Iodomethane	U		0.377	10.0	1	04/25/2019 17:48	WG1271705	
Isopropylbenzene	U		0.126	0.500	1	04/25/2019 17:48	WG1271705	
p-Isopropyltoluene	U		0.138	0.500	1	04/25/2019 17:48	WG1271705	
2-Butanone (MEK)	U		1.28	5.00	1	04/25/2019 17:48	WG1271705	
Methylene Chloride	U		1.07	2.50	1	04/25/2019 17:48	WG1271705	JC 5/13/19
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 17:48	WG1271705	
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 17:48	WG1271705	
Naphthalene	U		0.174	2.50	1	04/25/2019 17:48	WG1271705	
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 17:48	WG1271705	
Styrene	U		0.117	0.500	1	04/25/2019 17:48	WG1271705	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 17:48	WG1271705	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 17:48	WG1271705	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 17:48	WG1271705	
Tetrachloroethene	48.8		0.199	0.500	1	04/25/2019 17:48	WG1271705	
Toluene	U		0.412	0.500	1	04/25/2019 17:48	WG1271705	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 17:48	WG1271705	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 17:48	WG1271705	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 17:48	WG1271705	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 17:48	WG1271705	
Trichloroethene	9.09		0.153	0.500	1	04/25/2019 17:48	WG1271705	
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	04/25/2019 17:48	WG1271705	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 17:48	WG1271705	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 17:48	WG1271705	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 17:48	WG1271705	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 17:48	WG1271705	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Vinyl acetate	U		0.645	5.00	1	04/25/2019 17:48	WG1271705	¹ Cp
Vinyl chloride	U	UJ	0.118	0.500	1	04/25/2019 17:48	WG1271705	² Tc
Xylenes, Total	U		0.316	1.50	1	04/25/2019 17:48	WG1271705	³ Ss
(S) Toluene-d8	101			80.0-120		04/25/2019 17:48	WG1271705	⁴ Cn
(S) Toluene-d8	103			80.0-120		05/01/2019 01:36	WG1274056	⁵ Sr
(S) 4-Bromofluorobenzene	104			77.0-126		04/25/2019 17:48	WG1271705	⁶ Qc
(S) 4-Bromofluorobenzene	101			77.0-126		05/01/2019 01:36	WG1274056	⁷ Gl
(S) 1,2-Dichloroethane-d4	108			70.0-130		04/25/2019 17:48	WG1271705	⁸ Al
(S) 1,2-Dichloroethane-d4	102			70.0-130		05/01/2019 01:36	WG1274056	⁹ Sc

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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	04/25/2019 16:31	WG1271515
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	111			78.0-120		04/25/2019 16:31	WG1271515

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Acetone	1.86	J	<u>J</u> <u>J0</u> <u>J3</u> <u>J4</u>	1.05	25.0	1	04/25/2019 18:09	WG1271705
Acrylonitrile	U		0.873	5.00	1	04/25/2019 18:09	WG1271705	
Benzene	U		0.0896	0.500	1	04/25/2019 18:09	WG1271705	
Bromobenzene	U		0.133	0.500	1	04/25/2019 18:09	WG1271705	
Bromodichloromethane	U		0.0800	0.500	1	04/25/2019 18:09	WG1271705	
Bromoform	U		0.145	0.500	1	04/25/2019 18:09	WG1271705	
Bromomethane	U	UJ	<u>J0</u>	0.157	2.50	1	04/25/2019 18:09	WG1271705
n-Butylbenzene	U		0.143	0.500	1	04/25/2019 18:09	WG1271705	
sec-Butylbenzene	U		0.134	0.500	1	04/25/2019 18:09	WG1271705	
tert-Butylbenzene	U		0.183	0.500	1	04/25/2019 18:09	WG1271705	
Carbon disulfide	U		0.101	0.500	1	04/25/2019 18:09	WG1271705	
Carbon tetrachloride	U		0.159	0.500	1	04/25/2019 18:09	WG1271705	
Chlorobenzene	U		0.140	0.500	1	04/25/2019 18:09	WG1271705	
Chlorodibromomethane	U		0.128	0.500	1	04/25/2019 18:09	WG1271705	
Chloroethane	U	UJ	<u>J0</u>	0.141	2.50	1	04/25/2019 18:09	WG1271705
Chloroform	U		0.0860	0.500	1	04/25/2019 18:09	WG1271705	
Chloromethane	U		0.153	1.25	1	04/25/2019 18:09	WG1271705	
2-Chlorotoluene	U		0.111	0.500	1	04/25/2019 18:09	WG1271705	
4-Chlorotoluene	U		0.0972	0.500	1	04/25/2019 18:09	WG1271705	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/25/2019 18:09	WG1271705	
1,2-Dibromoethane	U		0.193	0.500	1	04/25/2019 18:09	WG1271705	
Dibromomethane	U		0.117	0.500	1	04/25/2019 18:09	WG1271705	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/25/2019 18:09	WG1271705	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/25/2019 18:09	WG1271705	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/25/2019 18:09	WG1271705	
Dichlorodifluoromethane	U		0.127	2.50	1	04/25/2019 18:09	WG1271705	
1,1-Dichloroethane	U		0.114	0.500	1	04/25/2019 18:09	WG1271705	
1,2-Dichloroethane	U		0.108	0.500	1	04/25/2019 18:09	WG1271705	
1,1-Dichloroethylene	0.249	J	<u>J</u>	0.188	0.500	1	04/25/2019 18:09	WG1271705
cis-1,2-Dichloroethylene	71.9		0.0933	0.500	1	04/25/2019 18:09	WG1271705	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/25/2019 18:09	WG1271705	
1,2-Dichloropropane	U		0.190	0.500	1	04/25/2019 18:09	WG1271705	
1,1-Dichloropropene	U		0.128	0.500	1	04/25/2019 18:09	WG1271705	
1,3-Dichloropropane	U		0.147	1.00	1	04/25/2019 18:09	WG1271705	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/25/2019 18:09	WG1271705	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/25/2019 18:09	WG1271705	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/25/2019 18:09	WG1271705	
2,2-Dichloropropane	U		0.0929	0.500	1	04/25/2019 18:09	WG1271705	
Di-isopropyl ether	U		0.0924	0.500	1	04/25/2019 18:09	WG1271705	
Ethylbenzene	U		0.158	0.500	1	04/25/2019 18:09	WG1271705	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/25/2019 18:09	WG1271705	
2-Hexanone	U		0.757	5.00	1	04/25/2019 18:09	WG1271705	
n-Hexane	U		0.305	5.00	1	04/25/2019 18:09	WG1271705	
Iodomethane	U		0.377	10.0	1	04/25/2019 18:09	WG1271705	
Isopropylbenzene	U		0.126	0.500	1	04/25/2019 18:09	WG1271705	
p-Isopropyltoluene	U		0.138	0.500	1	04/25/2019 18:09	WG1271705	
2-Butanone (MEK)	U		1.28	5.00	1	04/25/2019 18:09	WG1271705	

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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		
Methylene Chloride	U		1.07	2.50	1	04/25/2019 18:09	WG1271705	¹ Cp	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 18:09	WG1271705	² Tc	
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 18:09	WG1271705	³ Ss	
Naphthalene	U		0.174	2.50	1	04/25/2019 18:09	WG1271705		
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 18:09	WG1271705		
Styrene	U		0.117	0.500	1	04/25/2019 18:09	WG1271705		
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 18:09	WG1271705		
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 18:09	WG1271705		
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 18:09	WG1271705		
Tetrachloroethene	14.6		0.199	0.500	1	04/25/2019 18:09	WG1271705		
Toluene	U		0.412	0.500	1	04/25/2019 18:09	WG1271705	⁶ Qc	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 18:09	WG1271705		
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 18:09	WG1271705		
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 18:09	WG1271705		
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 18:09	WG1271705		
Trichloroethene	4.75		0.153	0.500	1	04/25/2019 18:09	WG1271705	⁷ GI	
Trichlorofluoromethane	U	UJ	JO	0.130	2.50	1	04/25/2019 18:09	WG1271705	⁸ AI
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 18:09	WG1271705		
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 18:09	WG1271705		
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 18:09	WG1271705		
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 18:09	WG1271705		
Vinyl acetate	U		0.645	5.00	1	04/25/2019 18:09	WG1271705		
Vinyl chloride	6.54	J	JO	0.118	0.500	1	04/25/2019 18:09	WG1271705	
Xylenes, Total	U		0.316	1.50	1	04/25/2019 18:09	WG1271705		
(S) Toluene-d8	101			80.0-120		04/25/2019 18:09	WG1271705		
(S) 4-Bromofluorobenzene	104			77.0-126		04/25/2019 18:09	WG1271705		
(S) 1,2-Dichloroethane-d4	93.4			70.0-130		04/25/2019 18:09	WG1271705	⁹ Sc	

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Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity	733000		2710	20000	1	04/30/2019 17:37	WG1273427

Sample Narrative:

L1091958-04 WG1273427: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	144000		260	5000	5	04/25/2019 00:37	WG1271082
Nitrate	U		22.7	100	1	04/25/2019 00:23	WG1271082
Sulfate	U		77.4	5000	1	04/25/2019 00:23	WG1271082

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	11400		102	1000	1	04/24/2019 19:53	WG1271096

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Iron	1220		15.0	100	1	05/06/2019 00:14	WG1271171
Manganese	1480		2.50	50.0	10	05/07/2019 00:53	WG1271171

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	04/25/2019 16:55	WG1271515
(S) a,a,a-Trifluorotoluene(FID)	111			78.0-120		04/25/2019 16:55	WG1271515

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methane	13000		5.74	13.6	20	05/02/2019 08:44	WG1274563
Ethane	771		0.296	1.29	1	04/26/2019 14:56	WG1271298
Ethene	699		0.422	1.27	1	04/26/2019 14:56	WG1271298

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	2.38	J	J J0 J3 J4	1.05	25.0	1	04/25/2019 18:29	WG1271705
Acrylonitrile	U			0.873	5.00	1	04/25/2019 18:29	WG1271705
Benzene	U			0.0896	0.500	1	04/25/2019 18:29	WG1271705
Bromobenzene	U			0.133	0.500	1	04/25/2019 18:29	WG1271705
Bromodichloromethane	U			0.0800	0.500	1	04/25/2019 18:29	WG1271705
Bromochloromethane	U			0.145	0.500	1	04/25/2019 18:29	WG1271705
Bromoform	U			0.186	0.500	1	04/25/2019 18:29	WG1271705
Bromomethane	U	UJ	J0	0.157	2.50	1	04/25/2019 18:29	WG1271705
n-Butylbenzene	U			0.143	0.500	1	04/25/2019 18:29	WG1271705
sec-Butylbenzene	U			0.134	0.500	1	04/25/2019 18:29	WG1271705
tert-Butylbenzene	U			0.183	0.500	1	04/25/2019 18:29	WG1271705
Carbon disulfide	0.210	J	J	0.101	0.500	1	04/25/2019 18:29	WG1271705
Carbon tetrachloride	U			0.159	0.500	1	04/25/2019 18:29	WG1271705

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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	
Chlorobenzene	U		0.140	0.500	1	04/25/2019 18:29	WG1271705	
Chlorodibromomethane	U		0.128	0.500	1	04/25/2019 18:29	WG1271705	
Chloroethane	U	<u>UJ</u>	<u>JO</u>	0.141	2.50	1	04/25/2019 18:29	WG1271705
Chloroform	U		0.0860	0.500	1	04/25/2019 18:29	WG1271705	
Chloromethane	U		0.153	1.25	1	04/25/2019 18:29	WG1271705	
2-Chlorotoluene	U		0.111	0.500	1	04/25/2019 18:29	WG1271705	
4-Chlorotoluene	U		0.0972	0.500	1	04/25/2019 18:29	WG1271705	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/25/2019 18:29	WG1271705	
1,2-Dibromoethane	U		0.193	0.500	1	04/25/2019 18:29	WG1271705	
Dibromomethane	U		0.117	0.500	1	04/25/2019 18:29	WG1271705	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/25/2019 18:29	WG1271705	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/25/2019 18:29	WG1271705	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/25/2019 18:29	WG1271705	
Dichlorodifluoromethane	U		0.127	2.50	1	04/25/2019 18:29	WG1271705	
1,1-Dichloroethane	U		0.114	0.500	1	04/25/2019 18:29	WG1271705	
1,2-Dichloroethane	U		0.108	0.500	1	04/25/2019 18:29	WG1271705	
1,1-Dichloroethene	U		0.188	0.500	1	04/25/2019 18:29	WG1271705	
cis-1,2-Dichloroethene	4.09		0.0933	0.500	1	04/25/2019 18:29	WG1271705	
trans-1,2-Dichloroethene	0.472	<u>J</u>	<u>J</u>	0.152	0.500	1	04/25/2019 18:29	WG1271705
1,2-Dichloropropane	U		0.190	0.500	1	04/25/2019 18:29	WG1271705	
1,1-Dichloropropene	U		0.128	0.500	1	04/25/2019 18:29	WG1271705	
1,3-Dichloropropane	U		0.147	1.00	1	04/25/2019 18:29	WG1271705	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/25/2019 18:29	WG1271705	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/25/2019 18:29	WG1271705	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/25/2019 18:29	WG1271705	
2,2-Dichloropropane	U		0.0929	0.500	1	04/25/2019 18:29	WG1271705	
Di-isopropyl ether	U		0.0924	0.500	1	04/25/2019 18:29	WG1271705	
Ethylbenzene	U		0.158	0.500	1	04/25/2019 18:29	WG1271705	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/25/2019 18:29	WG1271705	
2-Hexanone	U		0.757	5.00	1	04/25/2019 18:29	WG1271705	
n-Hexane	U		0.305	5.00	1	04/25/2019 18:29	WG1271705	
Iodomethane	U		0.377	10.0	1	04/25/2019 18:29	WG1271705	
Isopropylbenzene	U		0.126	0.500	1	04/25/2019 18:29	WG1271705	
p-Isopropyltoluene	U		0.138	0.500	1	04/25/2019 18:29	WG1271705	
2-Butanone (MEK)	U		1.28	5.00	1	04/25/2019 18:29	WG1271705	
Methylene Chloride	U		1.07	2.50	1	04/25/2019 18:29	WG1271705	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 18:29	WG1271705	
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 18:29	WG1271705	
Naphthalene	U		0.174	2.50	1	04/25/2019 18:29	WG1271705	
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 18:29	WG1271705	
Styrene	U		0.117	0.500	1	04/25/2019 18:29	WG1271705	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 18:29	WG1271705	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 18:29	WG1271705	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 18:29	WG1271705	
Tetrachloroethene	U		0.199	0.500	1	04/25/2019 18:29	WG1271705	
Toluene	U		0.412	0.500	1	04/25/2019 18:29	WG1271705	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 18:29	WG1271705	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 18:29	WG1271705	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 18:29	WG1271705	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 18:29	WG1271705	
Trichloroethene	0.158	<u>J</u>	<u>J</u>	0.153	0.500	1	04/25/2019 18:29	WG1271705
Trichlorofluoromethane	U	<u>UJ</u>	<u>JO</u>	0.130	2.50	1	04/25/2019 18:29	WG1271705
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 18:29	WG1271705	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 18:29	WG1271705	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 18:29	WG1271705	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 18:29	WG1271705	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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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		
Vinyl acetate	U		0.645	5.00	1	04/25/2019 18:29	WG1271705	¹ Cp	
Vinyl chloride	7.30	J	<u>JO</u>	0.118	0.500	1	04/25/2019 18:29	WG1271705	² Tc
Xylenes, Total	U		0.316	1.50	1	04/25/2019 18:29	WG1271705	³ Ss	
(S) Toluene-d8	101			80.0-120		04/25/2019 18:29	WG1271705	⁴ Cn	
(S) 4-Bromofluorobenzene	104			77.0-126		04/25/2019 18:29	WG1271705	⁵ Sr	
(S) 1,2-Dichloroethane-d4	95.9			70.0-130		04/25/2019 18:29	WG1271705	⁶ Qc	
								⁷ Gl	
								⁸ Al	
								⁹ Sc	

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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	04/25/2019 12:56	WG1271515
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	111			78.0-120		04/25/2019 12:56	WG1271515

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
Acetone	U	J3 J4	1.05	25.0	1	04/25/2019 16:08	WG1271705
Acrylonitrile	U		0.873	5.00	1	04/25/2019 16:08	WG1271705
Benzene	U		0.0896	0.500	1	04/25/2019 16:08	WG1271705
Bromobenzene	U		0.133	0.500	1	04/25/2019 16:08	WG1271705
Bromodichloromethane	U		0.0800	0.500	1	04/25/2019 16:08	WG1271705
Bromoform	U		0.145	0.500	1	04/25/2019 16:08	WG1271705
Bromomethane	U	UJ JO	0.157	2.50	1	04/25/2019 16:08	WG1271705
n-Butylbenzene	U		0.143	0.500	1	04/25/2019 16:08	WG1271705
sec-Butylbenzene	U		0.134	0.500	1	04/25/2019 16:08	WG1271705
tert-Butylbenzene	U		0.183	0.500	1	04/25/2019 16:08	WG1271705
Carbon disulfide	U		0.101	0.500	1	04/25/2019 16:08	WG1271705
Carbon tetrachloride	U		0.159	0.500	1	04/25/2019 16:08	WG1271705
Chlorobenzene	U		0.140	0.500	1	04/25/2019 16:08	WG1271705
Chlorodibromomethane	U		0.128	0.500	1	04/25/2019 16:08	WG1271705
Chloroethane	U	UJ JO	0.141	2.50	1	04/25/2019 16:08	WG1271705
Chloroform	U		0.0860	0.500	1	04/25/2019 16:08	WG1271705
Chloromethane	U		0.153	1.25	1	04/25/2019 16:08	WG1271705
2-Chlorotoluene	U		0.111	0.500	1	04/25/2019 16:08	WG1271705
4-Chlorotoluene	U		0.0972	0.500	1	04/25/2019 16:08	WG1271705
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/25/2019 16:08	WG1271705
1,2-Dibromoethane	U		0.193	0.500	1	04/25/2019 16:08	WG1271705
Dibromomethane	U		0.117	0.500	1	04/25/2019 16:08	WG1271705
1,2-Dichlorobenzene	U		0.101	0.500	1	04/25/2019 16:08	WG1271705
1,3-Dichlorobenzene	U		0.130	0.500	1	04/25/2019 16:08	WG1271705
1,4-Dichlorobenzene	U		0.121	0.500	1	04/25/2019 16:08	WG1271705
Dichlorodifluoromethane	U		0.127	2.50	1	04/25/2019 16:08	WG1271705
1,1-Dichloroethane	U		0.114	0.500	1	04/25/2019 16:08	WG1271705
1,2-Dichloroethane	U		0.108	0.500	1	04/25/2019 16:08	WG1271705
1,1-Dichloroethene	U		0.188	0.500	1	04/25/2019 16:08	WG1271705
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/25/2019 16:08	WG1271705
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/25/2019 16:08	WG1271705
1,2-Dichloropropane	U		0.190	0.500	1	04/25/2019 16:08	WG1271705
1,1-Dichloropropene	U		0.128	0.500	1	04/25/2019 16:08	WG1271705
1,3-Dichloropropane	U		0.147	1.00	1	04/25/2019 16:08	WG1271705
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/25/2019 16:08	WG1271705
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/25/2019 16:08	WG1271705
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/25/2019 16:08	WG1271705
2,2-Dichloropropane	U		0.0929	0.500	1	04/25/2019 16:08	WG1271705
Di-isopropyl ether	U		0.0924	0.500	1	04/25/2019 16:08	WG1271705
Ethylbenzene	U		0.158	0.500	1	04/25/2019 16:08	WG1271705
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/25/2019 16:08	WG1271705
2-Hexanone	U		0.757	5.00	1	04/25/2019 16:08	WG1271705
n-Hexane	U		0.305	5.00	1	04/25/2019 16:08	WG1271705
Iodomethane	U		0.377	10.0	1	04/25/2019 16:08	WG1271705
Isopropylbenzene	U		0.126	0.500	1	04/25/2019 16:08	WG1271705
p-Isopropyltoluene	U		0.138	0.500	1	04/25/2019 16:08	WG1271705
2-Butanone (MEK)	U		1.28	5.00	1	04/25/2019 16:08	WG1271705

JC 5/13/19



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch		
Methylene Chloride	U		1.07	2.50	1	04/25/2019 16:08	WG1271705	¹ Cp	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 16:08	WG1271705	² Tc	
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 16:08	WG1271705	³ Ss	
Naphthalene	U		0.174	2.50	1	04/25/2019 16:08	WG1271705		
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 16:08	WG1271705		
Styrene	U		0.117	0.500	1	04/25/2019 16:08	WG1271705		
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 16:08	WG1271705		
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 16:08	WG1271705		
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 16:08	WG1271705		
Tetrachloroethene	U		0.199	0.500	1	04/25/2019 16:08	WG1271705		
Toluene	U		0.412	0.500	1	04/25/2019 16:08	WG1271705	⁶ Qc	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 16:08	WG1271705		
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 16:08	WG1271705		
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 16:08	WG1271705		
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 16:08	WG1271705		
Trichloroethene	U		0.153	0.500	1	04/25/2019 16:08	WG1271705		
Trichlorofluoromethane	U	UJ	JO	0.130	2.50	1	04/25/2019 16:08	WG1271705	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 16:08	WG1271705		
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 16:08	WG1271705		
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 16:08	WG1271705		
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 16:08	WG1271705		
Vinyl acetate	U		0.645	5.00	1	04/25/2019 16:08	WG1271705		
Vinyl chloride	U	UJ	JO	0.118	0.500	1	04/25/2019 16:08	WG1271705	
Xylenes, Total	U		0.316	1.50	1	04/25/2019 16:08	WG1271705		
(S) Toluene-d8	100			80.0-120		04/25/2019 16:08	WG1271705		
(S) 4-Bromofluorobenzene	104			77.0-126		04/25/2019 16:08	WG1271705		
(S) 1,2-Dichloroethane-d4	92.3			70.0-130		04/25/2019 16:08	WG1271705		

JC 5/13/19

ANALYTICAL REPORT

May 03, 2019

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

PES Environmental, Inc.- WA

Sample Delivery Group: L1092400
Samples Received: 04/25/2019
Project Number: 1413.001.05.601
Description: American Linen
Site: AMERICAN LINEN
Report To: Brian O'Neal/Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

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.



MW-909-042419 L1092400-01 GW

Collected by
Ben Hecht
04/24/19 08:00
Received date/time
04/25/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1273429	1	04/30/19 14:55	04/30/19 14:55	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1271706	1	04/26/19 02:48	04/26/19 02:48	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1272243	1	04/29/19 19:31	04/29/19 19:31	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271843	1	04/26/19 07:59	04/29/19 15:46	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271843	5	04/26/19 07:59	04/29/19 17:16	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1272107	1	04/26/19 02:05	04/26/19 02:05	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1272501	1	05/02/19 14:17	05/02/19 14:17	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271705	1	04/25/19 18:49	04/25/19 18:49	BMB	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW-146-042419 L1092400-02 GW

Collected by
Ben Hecht
04/24/19 09:55
Received date/time
04/25/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1273429	1	04/30/19 15:03	04/30/19 15:03	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1271706	1	04/26/19 02:59	04/26/19 02:59	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1272243	1	04/29/19 19:49	04/29/19 19:49	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271843	5	04/26/19 07:59	04/29/19 17:21	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1272107	1	04/26/19 02:29	04/26/19 02:29	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1272501	1	05/02/19 14:20	05/02/19 14:20	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271705	1	04/25/19 19:09	04/25/19 19:09	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1274056	10	05/01/19 03:04	05/01/19 03:04	JHH	Mt. Juliet, TN

Collected by
Ben Hecht
04/24/19 11:40
Received date/time
04/25/19 08:45

MW-154-042419 L1092400-03 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1272107	1	04/26/19 02:53	04/26/19 02:53	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271705	1	04/25/19 19:29	04/25/19 19:29	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1274056	1	05/01/19 01:58	05/01/19 01:58	JHH	Mt. Juliet, TN

Collected by
Ben Hecht
04/24/19 12:55
Received date/time
04/25/19 08:45

MW-153-042419 L1092400-04 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1273429	1	04/30/19 15:10	04/30/19 15:10	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1271706	1	04/26/19 03:10	04/26/19 03:10	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1272243	1	04/29/19 20:49	04/29/19 20:49	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271843	5	04/26/19 07:59	04/29/19 17:27	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1272107	1	04/26/19 03:17	04/26/19 03:17	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1272501	1	05/02/19 15:36	05/02/19 15:36	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271705	1	04/25/19 19:49	04/25/19 19:49	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1274056	1	05/01/19 02:20	05/01/19 02:20	JHH	Mt. Juliet, TN

Collected by
Ben Hecht
04/24/19 00:00
Received date/time
04/25/19 08:45

TRIP BLANK-042419 L1092400-05 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1272107	1	04/26/19 01:41	04/26/19 01:41	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1271705	1	04/25/19 16:28	04/25/19 16:28	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.

Jared Starkey
Project Manager

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ SC



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	170000		2710	20000	1	04/30/2019 14:55	WG1273429

Sample Narrative:

L1092400-01 WG1273429: Endpoint pH 4.5

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	9160		51.9	1000	1	04/26/2019 02:48	WG1271706
Nitrate	U		22.7	100	1	04/26/2019 02:48	WG1271706
Sulfate	8910		77.4	5000	1	04/26/2019 02:48	WG1271706

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	4620	B	102	1000	1	04/29/2019 19:31	WG1272243

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	1590		15.0	100	1	04/29/2019 15:46	WG1271843
Manganese	305		1.25	25.0	5	04/29/2019 17:16	WG1271843

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/26/2019 02:05	WG1272107
(S) a,a,a-Trifluorotoluene(FID)	111			78.0-120		04/26/2019 02:05	WG1272107

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	434		0.287	0.678	1	05/02/2019 14:17	WG1272501
Ethane	U		0.296	1.29	1	05/02/2019 14:17	WG1272501
Ethene	U		0.422	1.27	1	05/02/2019 14:17	WG1272501

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	2.21	J J0 J3 J4	1.05	25.0	1	04/25/2019 18:49	WG1271705
Acrylonitrile	U		0.873	5.00	1	04/25/2019 18:49	WG1271705
Benzene	U		0.0896	0.500	1	04/25/2019 18:49	WG1271705
Bromobenzene	U		0.133	0.500	1	04/25/2019 18:49	WG1271705
Bromodichloromethane	U		0.0800	0.500	1	04/25/2019 18:49	WG1271705
Bromochloromethane	U		0.145	0.500	1	04/25/2019 18:49	WG1271705
Bromoform	U		0.186	0.500	1	04/25/2019 18:49	WG1271705
Bromomethane	U	J0	0.157	2.50	1	04/25/2019 18:49	WG1271705
n-Butylbenzene	U		0.143	0.500	1	04/25/2019 18:49	WG1271705
sec-Butylbenzene	U		0.134	0.500	1	04/25/2019 18:49	WG1271705
tert-Butylbenzene	U		0.183	0.500	1	04/25/2019 18:49	WG1271705
Carbon disulfide	0.303	J	0.101	0.500	1	04/25/2019 18:49	WG1271705
Carbon tetrachloride	U		0.159	0.500	1	04/25/2019 18:49	WG1271705



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	04/25/2019 18:49	WG1271705
Chlorodibromomethane	U		0.128	0.500	1	04/25/2019 18:49	WG1271705
Chloroethane	U	<u>JO</u>	0.141	2.50	1	04/25/2019 18:49	WG1271705
Chloroform	U		0.0860	0.500	1	04/25/2019 18:49	WG1271705
Chloromethane	U		0.153	1.25	1	04/25/2019 18:49	WG1271705
2-Chlorotoluene	U		0.111	0.500	1	04/25/2019 18:49	WG1271705
4-Chlorotoluene	U		0.0972	0.500	1	04/25/2019 18:49	WG1271705
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/25/2019 18:49	WG1271705
1,2-Dibromoethane	U		0.193	0.500	1	04/25/2019 18:49	WG1271705
Dibromomethane	U		0.117	0.500	1	04/25/2019 18:49	WG1271705
1,2-Dichlorobenzene	U		0.101	0.500	1	04/25/2019 18:49	WG1271705
1,3-Dichlorobenzene	U		0.130	0.500	1	04/25/2019 18:49	WG1271705
1,4-Dichlorobenzene	U		0.121	0.500	1	04/25/2019 18:49	WG1271705
Dichlorodifluoromethane	U		0.127	2.50	1	04/25/2019 18:49	WG1271705
1,1-Dichloroethane	U		0.114	0.500	1	04/25/2019 18:49	WG1271705
1,2-Dichloroethane	U		0.108	0.500	1	04/25/2019 18:49	WG1271705
1,1-Dichloroethene	U		0.188	0.500	1	04/25/2019 18:49	WG1271705
cis-1,2-Dichloroethene	0.975		0.0933	0.500	1	04/25/2019 18:49	WG1271705
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/25/2019 18:49	WG1271705
1,2-Dichloropropane	U		0.190	0.500	1	04/25/2019 18:49	WG1271705
1,1-Dichloropropene	U		0.128	0.500	1	04/25/2019 18:49	WG1271705
1,3-Dichloropropane	U		0.147	1.00	1	04/25/2019 18:49	WG1271705
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/25/2019 18:49	WG1271705
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/25/2019 18:49	WG1271705
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/25/2019 18:49	WG1271705
2,2-Dichloropropane	U		0.0929	0.500	1	04/25/2019 18:49	WG1271705
Di-isopropyl ether	U		0.0924	0.500	1	04/25/2019 18:49	WG1271705
Ethylbenzene	U		0.158	0.500	1	04/25/2019 18:49	WG1271705
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/25/2019 18:49	WG1271705
2-Hexanone	U		0.757	5.00	1	04/25/2019 18:49	WG1271705
n-Hexane	U		0.305	5.00	1	04/25/2019 18:49	WG1271705
Iodomethane	U		0.377	10.0	1	04/25/2019 18:49	WG1271705
Isopropylbenzene	U		0.126	0.500	1	04/25/2019 18:49	WG1271705
p-Isopropyltoluene	U		0.138	0.500	1	04/25/2019 18:49	WG1271705
2-Butanone (MEK)	U		1.28	5.00	1	04/25/2019 18:49	WG1271705
Methylene Chloride	U		1.07	2.50	1	04/25/2019 18:49	WG1271705
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 18:49	WG1271705
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 18:49	WG1271705
Naphthalene	U		0.174	2.50	1	04/25/2019 18:49	WG1271705
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 18:49	WG1271705
Styrene	U		0.117	0.500	1	04/25/2019 18:49	WG1271705
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 18:49	WG1271705
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 18:49	WG1271705
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 18:49	WG1271705
Tetrachloroethene	U		0.199	0.500	1	04/25/2019 18:49	WG1271705
Toluene	U		0.412	0.500	1	04/25/2019 18:49	WG1271705
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 18:49	WG1271705
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 18:49	WG1271705
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 18:49	WG1271705
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 18:49	WG1271705
Trichloroethene	U		0.153	0.500	1	04/25/2019 18:49	WG1271705
Trichlorofluoromethane	U	<u>JO</u>	0.130	2.50	1	04/25/2019 18:49	WG1271705
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 18:49	WG1271705
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 18:49	WG1271705
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 18:49	WG1271705
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 18:49	WG1271705

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- 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	
Vinyl acetate	U		0.645	5.00	1	04/25/2019 18:49	WG1271705	¹ Cp
Vinyl chloride	1.66	<u>J0</u>	0.118	0.500	1	04/25/2019 18:49	WG1271705	² Tc
Xylenes, Total	U		0.316	1.50	1	04/25/2019 18:49	WG1271705	³ Ss
(S) Toluene-d8	101			80.0-120		04/25/2019 18:49	WG1271705	⁴ Cn
(S) 4-Bromofluorobenzene	106			77.0-126		04/25/2019 18:49	WG1271705	⁵ Sr
(S) 1,2-Dichloroethane-d4	93.8			70.0-130		04/25/2019 18:49	WG1271705	⁶ Qc
								⁷ Gl
								⁸ Al
								⁹ Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	310000		2710	20000	1	04/30/2019 15:03	WG1273429

Sample Narrative:

L1092400-02 WG1273429: Endpoint pH 4.5

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	14800		51.9	1000	1	04/26/2019 02:59	WG1271706
Nitrate	U		22.7	100	1	04/26/2019 02:59	WG1271706
Sulfate	23300		77.4	5000	1	04/26/2019 02:59	WG1271706

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	4950	B	102	1000	1	04/29/2019 19:49	WG1272243

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	2870		75.0	500	5	04/29/2019 17:21	WG1271843
Manganese	770		1.25	25.0	5	04/29/2019 17:21	WG1271843

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	88.0	J	31.6	100	1	04/26/2019 02:29	WG1272107
(S) a,a,a-Trifluorotoluene(FID)	111			78.0-120		04/26/2019 02:29	WG1272107

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	5090		0.287	0.678	1	05/02/2019 14:20	WG1272501
Ethane	4.00		0.296	1.29	1	05/02/2019 14:20	WG1272501
Ethene	347		0.422	1.27	1	05/02/2019 14:20	WG1272501

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	1.58	J J0 J3 J4	1.05	25.0	1	04/25/2019 19:09	WG1271705
Acrylonitrile	U		0.873	5.00	1	04/25/2019 19:09	WG1271705
Benzene	U		0.0896	0.500	1	04/25/2019 19:09	WG1271705
Bromobenzene	U		0.133	0.500	1	04/25/2019 19:09	WG1271705
Bromodichloromethane	U		0.0800	0.500	1	04/25/2019 19:09	WG1271705
Bromochloromethane	U		0.145	0.500	1	04/25/2019 19:09	WG1271705
Bromoform	U		0.186	0.500	1	04/25/2019 19:09	WG1271705
Bromomethane	U	J0	0.157	2.50	1	04/25/2019 19:09	WG1271705
n-Butylbenzene	U		0.143	0.500	1	04/25/2019 19:09	WG1271705
sec-Butylbenzene	U		0.134	0.500	1	04/25/2019 19:09	WG1271705
tert-Butylbenzene	U		0.183	0.500	1	04/25/2019 19:09	WG1271705
Carbon disulfide	U		0.101	0.500	1	04/25/2019 19:09	WG1271705
Carbon tetrachloride	U		0.159	0.500	1	04/25/2019 19:09	WG1271705



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	04/25/2019 19:09	WG1271705
Chlorodibromomethane	U		0.128	0.500	1	04/25/2019 19:09	WG1271705
Chloroethane	0.719	<u>J JO</u>	0.141	2.50	1	04/25/2019 19:09	WG1271705
Chloroform	U		0.0860	0.500	1	04/25/2019 19:09	WG1271705
Chloromethane	U		0.153	1.25	1	04/25/2019 19:09	WG1271705
2-Chlorotoluene	U		0.111	0.500	1	04/25/2019 19:09	WG1271705
4-Chlorotoluene	U		0.0972	0.500	1	04/25/2019 19:09	WG1271705
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/25/2019 19:09	WG1271705
1,2-Dibromoethane	U		0.193	0.500	1	04/25/2019 19:09	WG1271705
Dibromomethane	U		0.117	0.500	1	04/25/2019 19:09	WG1271705
1,2-Dichlorobenzene	U		0.101	0.500	1	04/25/2019 19:09	WG1271705
1,3-Dichlorobenzene	U		0.130	0.500	1	04/25/2019 19:09	WG1271705
1,4-Dichlorobenzene	U		0.121	0.500	1	04/25/2019 19:09	WG1271705
Dichlorodifluoromethane	U		0.127	2.50	1	04/25/2019 19:09	WG1271705
1,1-Dichloroethane	U		0.114	0.500	1	04/25/2019 19:09	WG1271705
1,2-Dichloroethane	U		0.108	0.500	1	04/25/2019 19:09	WG1271705
1,1-Dichloroethene	1.04		0.188	0.500	1	04/25/2019 19:09	WG1271705
cis-1,2-Dichloroethene	257		0.933	5.00	10	05/01/2019 03:04	WG1274056
trans-1,2-Dichloroethene	1.94		0.152	0.500	1	04/25/2019 19:09	WG1271705
1,2-Dichloropropane	U		0.190	0.500	1	04/25/2019 19:09	WG1271705
1,1-Dichloropropene	U		0.128	0.500	1	04/25/2019 19:09	WG1271705
1,3-Dichloropropane	U		0.147	1.00	1	04/25/2019 19:09	WG1271705
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/25/2019 19:09	WG1271705
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/25/2019 19:09	WG1271705
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/25/2019 19:09	WG1271705
2,2-Dichloropropane	U		0.0929	0.500	1	04/25/2019 19:09	WG1271705
Di-isopropyl ether	U		0.0924	0.500	1	04/25/2019 19:09	WG1271705
Ethylbenzene	U		0.158	0.500	1	04/25/2019 19:09	WG1271705
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/25/2019 19:09	WG1271705
2-Hexanone	U		0.757	5.00	1	04/25/2019 19:09	WG1271705
n-Hexane	U		0.305	5.00	1	04/25/2019 19:09	WG1271705
Iodomethane	U		0.377	10.0	1	04/25/2019 19:09	WG1271705
Isopropylbenzene	U		0.126	0.500	1	04/25/2019 19:09	WG1271705
p-Isopropyltoluene	U		0.138	0.500	1	04/25/2019 19:09	WG1271705
2-Butanone (MEK)	U		1.28	5.00	1	04/25/2019 19:09	WG1271705
Methylene Chloride	U		1.07	2.50	1	04/25/2019 19:09	WG1271705
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 19:09	WG1271705
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 19:09	WG1271705
Naphthalene	U		0.174	2.50	1	04/25/2019 19:09	WG1271705
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 19:09	WG1271705
Styrene	U		0.117	0.500	1	04/25/2019 19:09	WG1271705
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 19:09	WG1271705
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 19:09	WG1271705
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 19:09	WG1271705
Tetrachloroethene	1.50		0.199	0.500	1	04/25/2019 19:09	WG1271705
Toluene	U		0.412	0.500	1	04/25/2019 19:09	WG1271705
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 19:09	WG1271705
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 19:09	WG1271705
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 19:09	WG1271705
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 19:09	WG1271705
Trichloroethene	12.4		0.153	0.500	1	04/25/2019 19:09	WG1271705
Trichlorofluoromethane	U	<u>J0</u>	0.130	2.50	1	04/25/2019 19:09	WG1271705
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 19:09	WG1271705
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 19:09	WG1271705
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 19:09	WG1271705
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 19:09	WG1271705

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

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	
Vinyl acetate	U		0.645	5.00	1	04/25/2019 19:09	WG1271705	¹ Cp
Vinyl chloride	383		1.18	5.00	10	05/01/2019 03:04	WG1274056	² Tc
Xylenes, Total	U		0.316	1.50	1	04/25/2019 19:09	WG1271705	³ Ss
(S) Toluene-d8	97.1			80.0-120		04/25/2019 19:09	WG1271705	⁴ Cn
(S) Toluene-d8	103			80.0-120		05/01/2019 03:04	WG1274056	⁵ Sr
(S) 4-Bromofluorobenzene	99.8			77.0-126		04/25/2019 19:09	WG1271705	⁶ Qc
(S) 4-Bromofluorobenzene	99.5			77.0-126		05/01/2019 03:04	WG1274056	⁷ Gl
(S) 1,2-Dichloroethane-d4	107			70.0-130		04/25/2019 19:09	WG1271705	⁸ Al
(S) 1,2-Dichloroethane-d4	102			70.0-130		05/01/2019 03:04	WG1274056	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	04/26/2019 02:53	WG1272107
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	111			78.0-120		04/26/2019 02:53	WG1272107

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	2.68	<u>J J0 J3 J4</u>	1.05	25.0	1	04/25/2019 19:29	WG1271705
Acrylonitrile	U		0.873	5.00	1	04/25/2019 19:29	WG1271705
Benzene	U		0.0896	0.500	1	04/25/2019 19:29	WG1271705
Bromobenzene	U		0.133	0.500	1	04/25/2019 19:29	WG1271705
Bromodichloromethane	U		0.0800	0.500	1	04/25/2019 19:29	WG1271705
Bromoform	U		0.145	0.500	1	04/25/2019 19:29	WG1271705
Bromomethane	U	<u>J0</u>	0.157	2.50	1	04/25/2019 19:29	WG1271705
n-Butylbenzene	U		0.143	0.500	1	04/25/2019 19:29	WG1271705
sec-Butylbenzene	U		0.134	0.500	1	04/25/2019 19:29	WG1271705
tert-Butylbenzene	U		0.183	0.500	1	04/25/2019 19:29	WG1271705
Carbon disulfide	U		0.101	0.500	1	04/25/2019 19:29	WG1271705
Carbon tetrachloride	U		0.159	0.500	1	04/25/2019 19:29	WG1271705
Chlorobenzene	U		0.140	0.500	1	04/25/2019 19:29	WG1271705
Chlorodibromomethane	U		0.128	0.500	1	04/25/2019 19:29	WG1271705
Chloroethane	0.369	<u>J J0</u>	0.141	2.50	1	04/25/2019 19:29	WG1271705
Chloroform	U		0.0860	0.500	1	04/25/2019 19:29	WG1271705
Chloromethane	U		0.153	1.25	1	04/25/2019 19:29	WG1271705
2-Chlorotoluene	U		0.111	0.500	1	04/25/2019 19:29	WG1271705
4-Chlorotoluene	U		0.0972	0.500	1	04/25/2019 19:29	WG1271705
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/25/2019 19:29	WG1271705
1,2-Dibromoethane	U		0.193	0.500	1	04/25/2019 19:29	WG1271705
Dibromomethane	U		0.117	0.500	1	04/25/2019 19:29	WG1271705
1,2-Dichlorobenzene	U		0.101	0.500	1	04/25/2019 19:29	WG1271705
1,3-Dichlorobenzene	U		0.130	0.500	1	04/25/2019 19:29	WG1271705
1,4-Dichlorobenzene	U		0.121	0.500	1	04/25/2019 19:29	WG1271705
Dichlorodifluoromethane	U		0.127	2.50	1	04/25/2019 19:29	WG1271705
1,1-Dichloroethane	U		0.114	0.500	1	04/25/2019 19:29	WG1271705
1,2-Dichloroethane	U		0.108	0.500	1	04/25/2019 19:29	WG1271705
1,1-Dichloroethene	U		0.188	0.500	1	04/25/2019 19:29	WG1271705
cis-1,2-Dichloroethene	1.76		0.0933	0.500	1	05/01/2019 01:58	WG1274056
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/25/2019 19:29	WG1271705
1,2-Dichloropropane	U		0.190	0.500	1	04/25/2019 19:29	WG1271705
1,1-Dichloropropene	U		0.128	0.500	1	04/25/2019 19:29	WG1271705
1,3-Dichloropropane	U		0.147	1.00	1	04/25/2019 19:29	WG1271705
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/25/2019 19:29	WG1271705
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/25/2019 19:29	WG1271705
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/25/2019 19:29	WG1271705
2,2-Dichloropropane	U		0.0929	0.500	1	04/25/2019 19:29	WG1271705
Di-isopropyl ether	U		0.0924	0.500	1	04/25/2019 19:29	WG1271705
Ethylbenzene	U		0.158	0.500	1	04/25/2019 19:29	WG1271705
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/25/2019 19:29	WG1271705
2-Hexanone	U		0.757	5.00	1	04/25/2019 19:29	WG1271705
n-Hexane	U		0.305	5.00	1	04/25/2019 19:29	WG1271705
Iodomethane	U		0.377	10.0	1	04/25/2019 19:29	WG1271705
Isopropylbenzene	U		0.126	0.500	1	04/25/2019 19:29	WG1271705
p-Isopropyltoluene	U		0.138	0.500	1	04/25/2019 19:29	WG1271705
2-Butanone (MEK)	U		1.28	5.00	1	04/25/2019 19:29	WG1271705



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	04/25/2019 19:29	WG1271705	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 19:29	WG1271705	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 19:29	WG1271705	³ Ss
Naphthalene	U		0.174	2.50	1	04/25/2019 19:29	WG1271705	
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 19:29	WG1271705	
Styrene	U		0.117	0.500	1	04/25/2019 19:29	WG1271705	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 19:29	WG1271705	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 19:29	WG1271705	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 19:29	WG1271705	
Tetrachloroethene	1.02		0.199	0.500	1	04/25/2019 19:29	WG1271705	
Toluene	U		0.412	0.500	1	04/25/2019 19:29	WG1271705	⁶ Qc
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 19:29	WG1271705	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 19:29	WG1271705	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 19:29	WG1271705	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 19:29	WG1271705	
Trichloroethene	0.214	J	0.153	0.500	1	04/25/2019 19:29	WG1271705	
Trichlorofluoromethane	U	JO	0.130	2.50	1	04/25/2019 19:29	WG1271705	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 19:29	WG1271705	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 19:29	WG1271705	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 19:29	WG1271705	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 19:29	WG1271705	
Vinyl acetate	U		0.645	5.00	1	04/25/2019 19:29	WG1271705	
Vinyl chloride	0.797		0.118	0.500	1	05/01/2019 01:58	WG1274056	
Xylenes, Total	U		0.316	1.50	1	04/25/2019 19:29	WG1271705	
(S) Toluene-d8	94.9			80.0-120		04/25/2019 19:29	WG1271705	
(S) Toluene-d8	103			80.0-120		05/01/2019 01:58	WG1274056	
(S) 4-Bromofluorobenzene	98.6			77.0-126		04/25/2019 19:29	WG1271705	
(S) 4-Bromofluorobenzene	99.7			77.0-126		05/01/2019 01:58	WG1274056	
(S) 1,2-Dichloroethane-d4	106			70.0-130		04/25/2019 19:29	WG1271705	
(S) 1,2-Dichloroethane-d4	100			70.0-130		05/01/2019 01:58	WG1274056	



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	174000		2710	20000	1	04/30/2019 15:10	WG1273429

Sample Narrative:

L1092400-04 WG1273429: Endpoint pH 4.5

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	9400		51.9	1000	1	04/26/2019 03:10	WG1271706
Nitrate	U		22.7	100	1	04/26/2019 03:10	WG1271706
Sulfate	9230		77.4	5000	1	04/26/2019 03:10	WG1271706

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	3860	<u>B</u>	102	1000	1	04/29/2019 20:49	WG1272243

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	3600		75.0	500	5	04/29/2019 17:27	WG1271843
Manganese	385		1.25	25.0	5	04/29/2019 17:27	WG1271843

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/26/2019 03:17	WG1272107
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	111			78.0-120		04/26/2019 03:17	WG1272107

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	412		0.287	0.678	1	05/02/2019 15:36	WG1272501
Ethane	U		0.296	1.29	1	05/02/2019 15:36	WG1272501
Ethene	1.79		0.422	1.27	1	05/02/2019 15:36	WG1272501

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	3.82	<u>J J0 J3 J4</u>	1.05	25.0	1	04/25/2019 19:49	WG1271705
Acrylonitrile	U		0.873	5.00	1	04/25/2019 19:49	WG1271705
Benzene	U		0.0896	0.500	1	04/25/2019 19:49	WG1271705
Bromobenzene	U		0.133	0.500	1	04/25/2019 19:49	WG1271705
Bromodichloromethane	U		0.0800	0.500	1	04/25/2019 19:49	WG1271705
Bromochloromethane	U		0.145	0.500	1	04/25/2019 19:49	WG1271705
Bromoform	U		0.186	0.500	1	04/25/2019 19:49	WG1271705
Bromomethane	U	<u>J0</u>	0.157	2.50	1	04/25/2019 19:49	WG1271705
n-Butylbenzene	U		0.143	0.500	1	04/25/2019 19:49	WG1271705
sec-Butylbenzene	U		0.134	0.500	1	04/25/2019 19:49	WG1271705
tert-Butylbenzene	U		0.183	0.500	1	04/25/2019 19:49	WG1271705
Carbon disulfide	0.394	<u>J</u>	0.101	0.500	1	04/25/2019 19:49	WG1271705
Carbon tetrachloride	U		0.159	0.500	1	04/25/2019 19:49	WG1271705



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	04/25/2019 19:49	WG1271705	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/25/2019 19:49	WG1271705	² Tc
Chloroethane	U	<u>JO</u>	0.141	2.50	1	04/25/2019 19:49	WG1271705	³ Ss
Chloroform	U		0.0860	0.500	1	04/25/2019 19:49	WG1271705	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/25/2019 19:49	WG1271705	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/25/2019 19:49	WG1271705	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/25/2019 19:49	WG1271705	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/25/2019 19:49	WG1271705	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	04/25/2019 19:49	WG1271705	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/25/2019 19:49	WG1271705	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/25/2019 19:49	WG1271705	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/25/2019 19:49	WG1271705	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/25/2019 19:49	WG1271705	
Dichlorodifluoromethane	U		0.127	2.50	1	04/25/2019 19:49	WG1271705	
1,1-Dichloroethane	U		0.114	0.500	1	04/25/2019 19:49	WG1271705	
1,2-Dichloroethane	U		0.108	0.500	1	04/25/2019 19:49	WG1271705	
1,1-Dichloroethene	U		0.188	0.500	1	04/25/2019 19:49	WG1271705	
cis-1,2-Dichloroethene	1.07		0.0933	0.500	1	05/01/2019 02:20	WG1274056	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/25/2019 19:49	WG1271705	
1,2-Dichloropropane	U		0.190	0.500	1	04/25/2019 19:49	WG1271705	
1,1-Dichloropropene	U		0.128	0.500	1	04/25/2019 19:49	WG1271705	
1,3-Dichloropropane	U		0.147	1.00	1	04/25/2019 19:49	WG1271705	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/25/2019 19:49	WG1271705	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/25/2019 19:49	WG1271705	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/25/2019 19:49	WG1271705	
2,2-Dichloropropane	U		0.0929	0.500	1	04/25/2019 19:49	WG1271705	
Di-isopropyl ether	U		0.0924	0.500	1	04/25/2019 19:49	WG1271705	
Ethylbenzene	U		0.158	0.500	1	04/25/2019 19:49	WG1271705	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/25/2019 19:49	WG1271705	
2-Hexanone	U		0.757	5.00	1	04/25/2019 19:49	WG1271705	
n-Hexane	U		0.305	5.00	1	04/25/2019 19:49	WG1271705	
Iodomethane	U		0.377	10.0	1	04/25/2019 19:49	WG1271705	
Isopropylbenzene	U		0.126	0.500	1	04/25/2019 19:49	WG1271705	
p-Isopropyltoluene	U		0.138	0.500	1	04/25/2019 19:49	WG1271705	
2-Butanone (MEK)	U		1.28	5.00	1	04/25/2019 19:49	WG1271705	
Methylene Chloride	U		1.07	2.50	1	04/25/2019 19:49	WG1271705	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 19:49	WG1271705	
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 19:49	WG1271705	
Naphthalene	U		0.174	2.50	1	04/25/2019 19:49	WG1271705	
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 19:49	WG1271705	
Styrene	U		0.117	0.500	1	04/25/2019 19:49	WG1271705	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 19:49	WG1271705	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 19:49	WG1271705	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 19:49	WG1271705	
Tetrachloroethene	U		0.199	0.500	1	04/25/2019 19:49	WG1271705	
Toluene	U		0.412	0.500	1	04/25/2019 19:49	WG1271705	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 19:49	WG1271705	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 19:49	WG1271705	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 19:49	WG1271705	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 19:49	WG1271705	
Trichloroethene	U		0.153	0.500	1	04/25/2019 19:49	WG1271705	
Trichlorofluoromethane	U	<u>JO</u>	0.130	2.50	1	04/25/2019 19:49	WG1271705	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 19:49	WG1271705	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 19:49	WG1271705	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 19:49	WG1271705	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 19:49	WG1271705	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Vinyl acetate	U		0.645	5.00	1	04/25/2019 19:49	WG1271705
Vinyl chloride	2.69		0.118	0.500	1	05/01/2019 02:20	WG1274056
Xylenes, Total	U		0.316	1.50	1	04/25/2019 19:49	WG1271705
(S) Toluene-d8	103			80.0-120		04/25/2019 19:49	WG1271705
(S) Toluene-d8	103			80.0-120		05/01/2019 02:20	WG1274056
(S) 4-Bromofluorobenzene	103			77.0-126		04/25/2019 19:49	WG1271705
(S) 4-Bromofluorobenzene	97.4			77.0-126		05/01/2019 02:20	WG1274056
(S) 1,2-Dichloroethane-d4	97.4			70.0-130		04/25/2019 19:49	WG1271705
(S) 1,2-Dichloroethane-d4	103			70.0-130		05/01/2019 02:20	WG1274056

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ 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	04/26/2019 01:41	WG1272107
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	111			78.0-120		04/26/2019 01:41	WG1272107

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	1.76	<u>J</u> <u>J0</u> <u>J3</u> <u>J4</u>	1.05	25.0	1	04/25/2019 16:28	WG1271705
Acrylonitrile	U		0.873	5.00	1	04/25/2019 16:28	WG1271705
Benzene	U		0.0896	0.500	1	04/25/2019 16:28	WG1271705
Bromobenzene	U		0.133	0.500	1	04/25/2019 16:28	WG1271705
Bromodichloromethane	U		0.0800	0.500	1	04/25/2019 16:28	WG1271705
Bromoform	U		0.145	0.500	1	04/25/2019 16:28	WG1271705
Bromomethane	U	<u>J0</u>	0.157	2.50	1	04/25/2019 16:28	WG1271705
n-Butylbenzene	U		0.143	0.500	1	04/25/2019 16:28	WG1271705
sec-Butylbenzene	U		0.134	0.500	1	04/25/2019 16:28	WG1271705
tert-Butylbenzene	U		0.183	0.500	1	04/25/2019 16:28	WG1271705
Carbon disulfide	U		0.101	0.500	1	04/25/2019 16:28	WG1271705
Carbon tetrachloride	U		0.159	0.500	1	04/25/2019 16:28	WG1271705
Chlorobenzene	U		0.140	0.500	1	04/25/2019 16:28	WG1271705
Chlorodibromomethane	U		0.128	0.500	1	04/25/2019 16:28	WG1271705
Chloroethane	U	<u>J0</u>	0.141	2.50	1	04/25/2019 16:28	WG1271705
Chloroform	U		0.0860	0.500	1	04/25/2019 16:28	WG1271705
Chloromethane	U		0.153	1.25	1	04/25/2019 16:28	WG1271705
2-Chlorotoluene	U		0.111	0.500	1	04/25/2019 16:28	WG1271705
4-Chlorotoluene	U		0.0972	0.500	1	04/25/2019 16:28	WG1271705
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/25/2019 16:28	WG1271705
1,2-Dibromoethane	U		0.193	0.500	1	04/25/2019 16:28	WG1271705
Dibromomethane	U		0.117	0.500	1	04/25/2019 16:28	WG1271705
1,2-Dichlorobenzene	U		0.101	0.500	1	04/25/2019 16:28	WG1271705
1,3-Dichlorobenzene	U		0.130	0.500	1	04/25/2019 16:28	WG1271705
1,4-Dichlorobenzene	U		0.121	0.500	1	04/25/2019 16:28	WG1271705
Dichlorodifluoromethane	U		0.127	2.50	1	04/25/2019 16:28	WG1271705
1,1-Dichloroethane	U		0.114	0.500	1	04/25/2019 16:28	WG1271705
1,2-Dichloroethane	U		0.108	0.500	1	04/25/2019 16:28	WG1271705
1,1-Dichloroethene	U		0.188	0.500	1	04/25/2019 16:28	WG1271705
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/25/2019 16:28	WG1271705
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/25/2019 16:28	WG1271705
1,2-Dichloropropane	U		0.190	0.500	1	04/25/2019 16:28	WG1271705
1,1-Dichloropropene	U		0.128	0.500	1	04/25/2019 16:28	WG1271705
1,3-Dichloropropane	U		0.147	1.00	1	04/25/2019 16:28	WG1271705
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/25/2019 16:28	WG1271705
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/25/2019 16:28	WG1271705
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/25/2019 16:28	WG1271705
2,2-Dichloropropane	U		0.0929	0.500	1	04/25/2019 16:28	WG1271705
Di-isopropyl ether	U		0.0924	0.500	1	04/25/2019 16:28	WG1271705
Ethylbenzene	U		0.158	0.500	1	04/25/2019 16:28	WG1271705
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/25/2019 16:28	WG1271705
2-Hexanone	U		0.757	5.00	1	04/25/2019 16:28	WG1271705
n-Hexane	U		0.305	5.00	1	04/25/2019 16:28	WG1271705
Iodomethane	U		0.377	10.0	1	04/25/2019 16:28	WG1271705
Isopropylbenzene	U		0.126	0.500	1	04/25/2019 16:28	WG1271705
p-Isopropyltoluene	U		0.138	0.500	1	04/25/2019 16:28	WG1271705
2-Butanone (MEK)	U		1.28	5.00	1	04/25/2019 16:28	WG1271705



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	04/25/2019 16:28	WG1271705	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 16:28	WG1271705	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 16:28	WG1271705	³ Ss
Naphthalene	U		0.174	2.50	1	04/25/2019 16:28	WG1271705	
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 16:28	WG1271705	
Styrene	U		0.117	0.500	1	04/25/2019 16:28	WG1271705	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 16:28	WG1271705	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 16:28	WG1271705	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 16:28	WG1271705	
Tetrachloroethene	U		0.199	0.500	1	04/25/2019 16:28	WG1271705	
Toluene	U		0.412	0.500	1	04/25/2019 16:28	WG1271705	⁶ Qc
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 16:28	WG1271705	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 16:28	WG1271705	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 16:28	WG1271705	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 16:28	WG1271705	
Trichloroethene	U		0.153	0.500	1	04/25/2019 16:28	WG1271705	
Trichlorofluoromethane	U	J0	0.130	2.50	1	04/25/2019 16:28	WG1271705	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 16:28	WG1271705	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 16:28	WG1271705	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 16:28	WG1271705	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 16:28	WG1271705	
Vinyl acetate	U		0.645	5.00	1	04/25/2019 16:28	WG1271705	
Vinyl chloride	U	J0	0.118	0.500	1	04/25/2019 16:28	WG1271705	
Xylenes, Total	U		0.316	1.50	1	04/25/2019 16:28	WG1271705	
(S) Toluene-d8	101			80.0-120		04/25/2019 16:28	WG1271705	
(S) 4-Bromofluorobenzene	105			77.0-126		04/25/2019 16:28	WG1271705	
(S) 1,2-Dichloroethane-d4	92.8			70.0-130		04/25/2019 16:28	WG1271705	

L1092400-01,02,04

Method Blank (MB)

(MB) R3406816-1 04/30/19 12:58

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Alkalinity	3160	J	2710	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1092253-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1092253-04 04/30/19 13:12 • (DUP) R3406816-5 04/30/19 13:18

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Alkalinity	50900	52200	1	2.61		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

L1092421-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1092421-01 04/30/19 15:52 • (DUP) R3406816-10 04/30/19 15:59

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Alkalinity	61300	57900	1	5.61		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3406816-9 04/30/19 14:01

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Alkalinity	100000	99300	99.3	85.0-115	

Sample Narrative:

LCS: Endpoint pH 4.5

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



L1092400-01,02,04

Method Blank (MB)

(MB) R3405679-1 04/25/19 23:42

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1092353-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1092353-01 04/26/19 00:27 • (DUP) R3405679-3 04/26/19 00:38

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Chloride	16600	16100	1	3.08		15
Nitrate	U	0.000	1	0.000		15
Sulfate	20000	19200	1	4.16		15

⁹Sc

L1092400-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1092400-04 04/26/19 03:10 • (DUP) R3405679-6 04/26/19 03:21

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Chloride	9400	9560	1	1.76		15
Nitrate	U	0.000	1	0.000		15
Sulfate	9230	9330	1	1.03		15

Laboratory Control Sample (LCS)

(LCS) R3405679-2 04/25/19 23:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Chloride	40000	40100	100	80.0-120	
Nitrate	8000	7890	98.7	80.0-120	
Sulfate	40000	40900	102	80.0-120	

L1092400-01,02,04

L1092353-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1092353-01 04/26/19 00:27 • (MS) R3405679-4 04/26/19 00:49 • (MSD) R3405679-5 04/26/19 00:59

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Chloride	50000	16600	65100	65100	97.0	96.9	1	80.0-120			0.0978	15
Nitrate	5000	U	4610	4610	92.1	92.2	1	80.0-120			0.126	15
Sulfate	50000	20000	67300	67100	94.7	94.3	1	80.0-120			0.292	15

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1092400-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1092400-04 04/26/19 03:10 • (MS) R3405679-7 04/26/19 03:32

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>
Chloride	50000	9400	59000	99.1	1	80.0-120	
Nitrate	5000	U	4710	94.2	1	80.0-120	
Sulfate	50000	9230	58100	97.8	1	80.0-120	

WG1272243

Wet Chemistry by Method 9060A

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.



L1092400-01,02,04

Method Blank (MB)

(MB) R3406579-1 04/29/19 14:21

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	568	J	102	1000

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1092307-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1092307-01 04/29/19 16:13 • (DUP) R3406579-3 04/29/19 16:31

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
TOC (Total Organic Carbon)	48600	48400	1	0.516		20

L1092431-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1092431-08 04/30/19 01:31 • (DUP) R3406579-8 04/30/19 01:49

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
TOC (Total Organic Carbon)	8550	8900	1	3.99		20

Laboratory Control Sample (LCS)

(LCS) R3406579-2 04/29/19 14:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
TOC (Total Organic Carbon)	75000	78700	105	85.0-115	

L1092400-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1092400-02 04/29/19 19:49 • (MS) R3406579-4 04/29/19 20:11 • (MSD) R3406579-5 04/29/19 20:29

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
TOC (Total Organic Carbon)	50000	4950	56200	55400	102	101	1	80.0-120			1.36	20

L1092412-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1092412-06 04/30/19 00:16 • (MS) R3406579-6 04/30/19 00:34 • (MSD) R3406579-7 04/30/19 00:52

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
TOC (Total Organic Carbon)	50000	ND	50800	51000	101	101	1	80.0-120			0.314	20

ACCOUNT:

PES Environmental, Inc.- WA

PROJECT:

1413.001.05.601

SDG:

L1092400

DATE/TIME:

05/03/19 10:33

PAGE:

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L1092400-01,02,04

Method Blank (MB)

(MB) R3406378-1 04/29/19 13:02

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Iron	U		15.0	100
Manganese	U		0.250	5.00

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3406378-2 04/29/19 13:07 • (LCSD) R3406378-3 04/29/19 13:12

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 %
Iron	500	490	480	98.0	96.1	80.0-120			1.92	20
Manganese	50.0	48.4	47.0	96.7	94.0	80.0-120			2.85	20

L1092217-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1092217-01 04/29/19 13:18 • (MS) R3406378-5 04/29/19 13:28 • (MSD) R3406378-6 04/29/19 13:33

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Iron	500	2630	2940	3550	61.9	185	1	75.0-125	V	V	19.0	20
Manganese	50.0	2630	2730	2770	195	272	1	75.0-125	V	V	1.38	20

[L1092400-01,02,03,04,05](#)

Method Blank (MB)

(MB) R3406246-2 04/25/19 22:30

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	111			78.0-120

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3406246-1 04/25/19 21:42

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Gasoline Range Organics-NWTPH	5500	6260	114	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)		94.6		78.0-120	

L1092400-01,02,04

Method Blank (MB)

(MB) R3407661-1 05/02/19 12:59

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al

Method Blank (MB)

(MB) R3407661-2 05/02/19 13:58

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

⁹Sc

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

(LCS) R3407661-4 05/02/19 15:40 • (LCSD) R3407661-5 05/02/19 15:49

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 %
Methane	67.8	72.0	77.7	106	115	85.0-115			7.60	20
Ethane	129	117	120	90.5	93.2	85.0-115			2.96	20
Ethene	127	116	119	91.7	93.5	85.0-115			1.95	20

[L1092400-01,02,03,04,05](#)

Method Blank (MB)

(MB) R3406794-3 04/25/19 10:03

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	1 Cp
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	

[L1092400-01,02,03,04,05](#)

Method Blank (MB)

(MB) R3406794-3 04/25/19 10:03

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	
Ethylbenzene	U		0.158	0.500	¹ Cp
Hexachloro-1,3-butadiene	0.239	J	0.157	1.00	² Tc
2-Hexanone	U		0.757	5.00	³ Ss
n-Hexane	U		0.305	5.00	⁴ Cn
Iodomethane	U		0.377	10.0	⁵ Sr
Isopropylbenzene	U		0.126	0.500	⁶ Qc
p-Isopropyltoluene	U		0.138	0.500	⁷ Gl
2-Butanone (MEK)	U		1.28	5.00	⁸ Al
Methylene Chloride	U		1.07	2.50	⁹ Sc
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	
(S) Toluene-d8	101			80.0-120	
(S) 4-Bromofluorobenzene	105			77.0-126	
(S) 1,2-Dichloroethane-d4	94.7			70.0-130	



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

(LCS) R3406794-1 04/25/19 09:03 • (LCSD) R3406794-2 04/25/19 09:23

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 %
Acetone	125	205	144	164	115	19.0-160	J4	J3	34.8	27
Acrylonitrile	125	160	156	128	125	55.0-149			2.36	20
Benzene	25.0	26.0	26.1	104	104	70.0-123			0.383	20
Bromobenzene	25.0	23.4	23.6	93.5	94.5	73.0-121			1.10	20
Bromodichloromethane	25.0	22.3	22.3	89.3	89.2	75.0-120			0.142	20
Bromoform	25.0	23.5	23.3	94.2	93.0	76.0-122			1.20	20
Bromomethane	25.0	26.4	27.0	106	108	68.0-132			2.26	20
n-Butylbenzene	25.0	17.7	17.6	70.8	70.5	10.0-160			0.433	25
sec-Butylbenzene	25.0	23.2	22.8	92.7	91.2	73.0-125			1.67	20
tert-Butylbenzene	25.0	23.9	23.3	95.6	93.1	75.0-125			2.69	20
Carbon disulfide	25.0	24.5	24.0	98.0	96.1	76.0-124			1.94	20
Carbon tetrachloride	25.0	28.4	31.0	113	124	61.0-128			8.82	20
Chlorobenzene	25.0	23.9	23.9	95.5	95.5	68.0-126			0.0359	20
Chlorodibromomethane	25.0	23.5	24.0	94.2	96.0	77.0-125			0.523	20
Chloroethane	25.0	15.0	17.2	60.1	69.0	47.0-150			13.7	20
Chlorofrom	25.0	22.0	21.9	87.8	87.8	73.0-120			0.0352	20
Chloromethane	25.0	26.3	26.2	105	105	41.0-142			0.338	20
2-Chlorotoluene	25.0	23.1	22.8	92.6	91.0	76.0-123			1.66	20
4-Chlorotoluene	25.0	23.4	23.2	93.5	93.0	75.0-122			0.522	20
1,2-Dibromo-3-Chloropropane	25.0	28.4	27.7	114	111	58.0-134			2.76	20
1,2-Dibromoethane	25.0	23.3	23.7	93.0	94.8	80.0-122			1.90	20
Dibromomethane	25.0	22.7	22.5	90.7	90.0	80.0-120			0.716	20
1,2-Dichlorobenzene	25.0	23.9	23.4	95.5	93.5	79.0-121			2.08	20
1,3-Dichlorobenzene	25.0	23.5	23.2	94.0	93.0	79.0-120			1.05	20
1,4-Dichlorobenzene	25.0	22.7	22.5	91.0	89.9	79.0-120			1.15	20
Dichlorodifluoromethane	25.0	26.3	26.2	105	105	51.0-149			0.238	20
1,1-Dichloroethane	25.0	24.8	24.6	99.4	98.3	70.0-126			1.12	20
1,2-Dichloroethane	25.0	20.8	20.8	83.1	83.1	70.0-128			0.0641	20
1,1-Dichloroethene	25.0	25.0	25.4	100	102	71.0-124			1.62	20
cis-1,2-Dichloroethene	25.0	23.9	23.7	95.7	94.7	73.0-120			1.11	20
trans-1,2-Dichloroethene	25.0	24.9	24.9	99.6	99.4	73.0-120			0.115	20
1,2-Dichloropropane	25.0	26.5	26.5	106	106	77.0-125			0.267	20
1,1-Dichloropropene	25.0	24.9	24.8	99.4	99.1	74.0-126			0.298	20
1,3-Dichloropropane	25.0	24.6	25.1	98.6	100	80.0-120			1.86	20
cis-1,3-Dichloropropene	25.0	24.0	24.2	96.2	96.7	80.0-123			0.513	20
trans-1,3-Dichloropropene	25.0	23.3	23.5	93.2	94.1	78.0-124			0.936	20
trans-1,4-Dichloro-2-butene	25.0	20.7	19.7	83.0	78.6	33.0-144			5.42	20
2,2-Dichloropropane	25.0	32.0	31.4	128	126	58.0-130			2.05	20
Di-isopropyl ether	25.0	27.7	27.6	111	110	58.0-138			0.601	20

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



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

(LCS) R3406794-1 04/25/19 09:03 • (LCSD) R3406794-2 04/25/19 09:23

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 %
Ethylbenzene	25.0	24.4	24.7	97.5	98.9	79.0-123			1.46	20
Hexachloro-1,3-butadiene	25.0	31.2	30.4	125	122	54.0-138			2.57	20
2-Hexanone	125	147	146	117	117	67.0-149			0.700	20
n-Hexane	25.0	29.2	28.6	117	114	57.0-133			2.29	20
Iodomethane	125	134	128	107	102	33.0-147			4.64	26
Isopropylbenzene	25.0	25.6	26.1	103	104	76.0-127			1.66	20
p-Isopropyltoluene	25.0	24.2	23.8	96.8	95.1	76.0-125			1.85	20
2-Butanone (MEK)	125	165	156	132	125	44.0-160			5.34	20
Methylene Chloride	25.0	24.7	24.5	98.8	98.1	67.0-120			0.726	20
4-Methyl-2-pentanone (MIBK)	125	143	142	114	114	68.0-142			0.369	20
Methyl tert-butyl ether	25.0	23.7	23.4	94.7	93.6	68.0-125			1.16	20
Naphthalene	25.0	25.1	24.5	100	98.1	54.0-135			2.40	20
n-Propylbenzene	25.0	23.0	23.0	92.1	91.9	77.0-124			0.261	20
Styrene	25.0	26.6	27.4	106	110	73.0-130			3.12	20
1,1,1,2-Tetrachloroethane	25.0	24.1	24.0	96.2	96.2	75.0-125			0.0553	20
1,1,2,2-Tetrachloroethane	25.0	22.8	22.7	91.3	90.8	65.0-130			0.553	20
1,1,2-Trichlorotrifluoroethane	25.0	23.4	24.1	93.6	96.5	69.0-132			3.14	20
Tetrachloroethene	25.0	25.8	25.8	103	103	72.0-132			0.287	20
Toluene	25.0	25.9	26.1	103	104	79.0-120			0.981	20
1,2,3-Trichlorobenzene	25.0	25.7	24.4	103	97.5	50.0-138			5.36	20
1,2,4-Trichlorobenzene	25.0	26.6	25.2	107	101	57.0-137			5.53	20
1,1,1-Trichloroethane	25.0	23.7	23.8	94.9	95.3	73.0-124			0.433	20
1,1,2-Trichloroethane	25.0	22.8	22.6	91.3	90.4	80.0-120			0.971	20
Trichloroethene	25.0	25.1	25.2	100	101	78.0-124			0.572	20
Trichlorofluoromethane	25.0	15.2	16.5	60.9	65.9	59.0-147			7.93	20
1,2,3-Trichloropropane	25.0	21.1	20.9	84.4	83.5	73.0-130			1.11	20
1,2,4-Trimethylbenzene	25.0	22.8	22.6	91.2	90.5	76.0-121			0.774	20
1,2,3-Trimethylbenzene	25.0	22.4	21.8	89.8	87.2	77.0-120			2.96	20
1,3,5-Trimethylbenzene	25.0	23.4	22.6	93.5	90.5	76.0-122			3.16	20
Vinyl acetate	125	119	120	95.4	95.7	11.0-160			0.361	20
Vinyl chloride	25.0	17.8	17.9	71.3	71.7	67.0-131			0.499	20
Xylenes, Total	75.0	74.9	75.0	99.9	100	79.0-123			0.133	20
(S) Toluene-d8				101	100	80.0-120				
(S) 4-Bromofluorobenzene				105	107	77.0-126				
(S) 1,2-Dichloroethane-d4				92.7	99.9	70.0-130				

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



Method Blank (MB)

(MB) R3406890-2 05/01/19 01:15

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
cis-1,2-Dichloroethene	U		0.0933	0.500
Vinyl chloride	U		0.118	0.500
(S) Toluene-d8	104			80.0-120
(S) 4-Bromofluorobenzene	98.3			77.0-126
(S) 1,2-Dichloroethane-d4	102			70.0-130

¹Cp²Tc³Ss⁴Cn⁵Sr

Laboratory Control Sample (LCS)

(LCS) R3406890-1 05/01/19 00:32

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
cis-1,2-Dichloroethene	25.0	29.9	120	73.0-120	
Vinyl chloride	25.0	32.6	131	67.0-131	
(S) Toluene-d8			102	80.0-120	
(S) 4-Bromofluorobenzene			100	77.0-126	
(S) 1,2-Dichloroethane-d4			103	70.0-130	

⁶Qc⁷Gl⁸Al⁹Sc



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.	¹ Cp
ND	Not detected at the Reporting Limit (or MDL where applicable).	² Tc
RDL	Reported Detection Limit.	³ Ss
Rec.	Recovery.	⁴ Cn
RPD	Relative Percent Difference.	⁵ Sr
SDG	Sample Delivery Group.	⁶ Qc
(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.	⁷ GI
U	Not detected at the Reporting Limit (or MDL where applicable).	⁸ AI
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	⁹ SC
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 met 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.
V	The sample concentration is too high to evaluate accurate spike recoveries.



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
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia ¹	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky ^{1,6}	90010
Kentucky ²	16
Louisiana	AI30792
Louisiana ¹	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LA000356
South Carolina	84004
South Dakota	n/a
Tennessee ^{1,4}	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

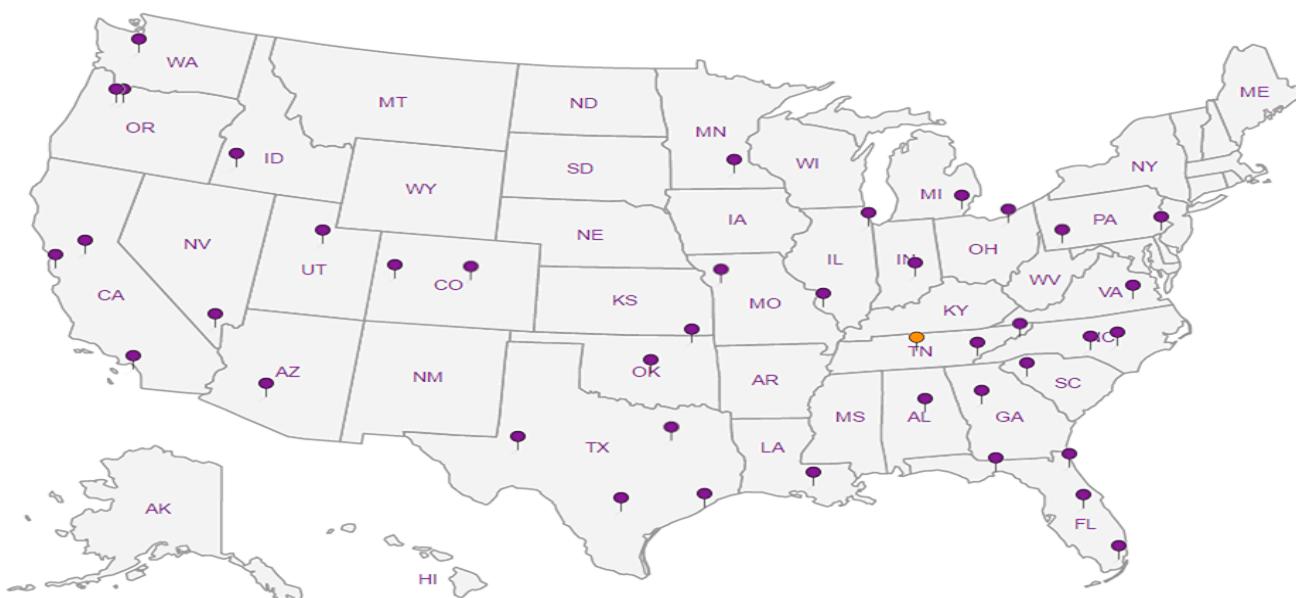
A2LA – ISO 17025	1461.01
A2LA – ISO 17025 ⁵	1461.02
Canada	1461.01
EPA-Crypto	TN00003

AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

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.



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

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

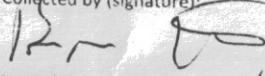
Reporter:
Brian O'Neal/Bill Haldeman

Project

Description: American Linen

Phone: 206-529-3980
Fax: 206-529-3985

Collected by (print):
Ben Hecht

Collected by (signature):


Immediately

Packed on Ice N Y ✓

Sample ID

Client Project #

1413-001-05-601

City/State

Collected: Seattle, WA

Lab Project #

PESENVSWA-ALP

P.O. #

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

✓ 2019-05-24

No. of Cntrs

Quote #

MW-909-042419

Comp/Grab

Grab

GW

130

0800

4/24/19

✓

MW-146-042419

GW

45

0935

✓

MW-154-042419

GW

30

1140

✓

MW-153-042419

GW

125

1255

✓

TRIP 130ft -042419

GW

-

-

✓

GW

GW

GW

GW

Billing Information:

Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Analysis / Container / Preservative

Chain of Custody

Page

Pace Analytic
National Center for Toxins
L1092400
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L#
C229

Acctnum: PESENVSWA

Template: T143845

Prelogin: P701221

TSR: 110 - Brian Ford

PB: B 4-1-19

Shipped Via: FedEx Ground

Remarks Sample # (ID)

-01

-02

-03

-04

NOC GRO-05
cont

* 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

SCREEN: <0.5 mm

pH Temp

Flow Other

Tracking # FedEx 4874 1086 2011

Received by: (Signature)

Trip Blank Received: Yes No

HCl/MeOH

TBR

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

Relinquished by: (Signature)

Date:

4-24-19

Time:

1615

Received bv: (Signature)

Temp: °C Bottles received:

117.5 -17.5 37

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: Time:

4/25/19 8:45

Hold:

Condition: NC



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	170000		2710	20000	1	04/30/2019 14:55	WG1273429

Sample Narrative:

L1092400-01 WG1273429: Endpoint pH 4.5

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	9160		51.9	1000	1	04/26/2019 02:48	WG1271706
Nitrate	U		22.7	100	1	04/26/2019 02:48	WG1271706
Sulfate	8910		77.4	5000	1	04/26/2019 02:48	WG1271706

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	4620	-B-	102	1000	1	04/29/2019 19:31	WG1272243

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	1590	J	15.0	100	1	04/29/2019 15:46	WG1271843
Manganese	305		1.25	25.0	5	04/29/2019 17:16	WG1271843

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/26/2019 02:05	WG1272107
(S) a,a,a-Trifluorotoluene(FID)	111			78.0-120		04/26/2019 02:05	WG1272107

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	434		0.287	0.678	1	05/02/2019 14:17	WG1272501
Ethane	U		0.296	1.29	1	05/02/2019 14:17	WG1272501
Ethene	U		0.422	1.27	1	05/02/2019 14:17	WG1272501

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
Acetone	2.21	U	J J0 J3 J4	1.05	25.0	1	04/25/2019 18:49	WG1271705
Acrylonitrile	U			0.873	5.00	1	04/25/2019 18:49	WG1271705
Benzene	U			0.0896	0.500	1	04/25/2019 18:49	WG1271705
Bromobenzene	U			0.133	0.500	1	04/25/2019 18:49	WG1271705
Bromodichloromethane	U			0.0800	0.500	1	04/25/2019 18:49	WG1271705
Bromochloromethane	U			0.145	0.500	1	04/25/2019 18:49	WG1271705
Bromoform	U			0.186	0.500	1	04/25/2019 18:49	WG1271705
Bromomethane	U	UJ	J0	0.157	2.50	1	04/25/2019 18:49	WG1271705
n-Butylbenzene	U			0.143	0.500	1	04/25/2019 18:49	WG1271705
sec-Butylbenzene	U			0.134	0.500	1	04/25/2019 18:49	WG1271705
tert-Butylbenzene	U			0.183	0.500	1	04/25/2019 18:49	WG1271705
Carbon disulfide	0.303	J	J	0.101	0.500	1	04/25/2019 18:49	WG1271705
Carbon tetrachloride	U			0.159	0.500	1	04/25/2019 18:49	WG1271705

JC 5/9/19



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	04/25/2019 18:49	WG1271705
Chlorodibromomethane	U		0.128	0.500	1	04/25/2019 18:49	WG1271705
Chloroethane	U	UJ JO	0.141	2.50	1	04/25/2019 18:49	WG1271705
Chloroform	U		0.0860	0.500	1	04/25/2019 18:49	WG1271705
Chloromethane	U		0.153	1.25	1	04/25/2019 18:49	WG1271705
2-Chlorotoluene	U		0.111	0.500	1	04/25/2019 18:49	WG1271705
4-Chlorotoluene	U		0.0972	0.500	1	04/25/2019 18:49	WG1271705
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/25/2019 18:49	WG1271705
1,2-Dibromoethane	U		0.193	0.500	1	04/25/2019 18:49	WG1271705
Dibromomethane	U		0.117	0.500	1	04/25/2019 18:49	WG1271705
1,2-Dichlorobenzene	U		0.101	0.500	1	04/25/2019 18:49	WG1271705
1,3-Dichlorobenzene	U		0.130	0.500	1	04/25/2019 18:49	WG1271705
1,4-Dichlorobenzene	U		0.121	0.500	1	04/25/2019 18:49	WG1271705
Dichlorodifluoromethane	U		0.127	2.50	1	04/25/2019 18:49	WG1271705
1,1-Dichloroethane	U		0.114	0.500	1	04/25/2019 18:49	WG1271705
1,2-Dichloroethane	U		0.108	0.500	1	04/25/2019 18:49	WG1271705
1,1-Dichloroethene	U		0.188	0.500	1	04/25/2019 18:49	WG1271705
cis-1,2-Dichloroethene	0.975		0.0933	0.500	1	04/25/2019 18:49	WG1271705
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/25/2019 18:49	WG1271705
1,2-Dichloropropane	U		0.190	0.500	1	04/25/2019 18:49	WG1271705
1,1-Dichloropropene	U		0.128	0.500	1	04/25/2019 18:49	WG1271705
1,3-Dichloropropane	U		0.147	1.00	1	04/25/2019 18:49	WG1271705
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/25/2019 18:49	WG1271705
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/25/2019 18:49	WG1271705
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/25/2019 18:49	WG1271705
2,2-Dichloropropane	U		0.0929	0.500	1	04/25/2019 18:49	WG1271705
Di-isopropyl ether	U		0.0924	0.500	1	04/25/2019 18:49	WG1271705
Ethylbenzene	U		0.158	0.500	1	04/25/2019 18:49	WG1271705
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/25/2019 18:49	WG1271705
2-Hexanone	U		0.757	5.00	1	04/25/2019 18:49	WG1271705
n-Hexane	U		0.305	5.00	1	04/25/2019 18:49	WG1271705
Iodomethane	U		0.377	10.0	1	04/25/2019 18:49	WG1271705
Isopropylbenzene	U		0.126	0.500	1	04/25/2019 18:49	WG1271705
p-Isopropyltoluene	U		0.138	0.500	1	04/25/2019 18:49	WG1271705
2-Butanone (MEK)	U		1.28	5.00	1	04/25/2019 18:49	WG1271705
Methylene Chloride	U		1.07	2.50	1	04/25/2019 18:49	WG1271705
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 18:49	WG1271705
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 18:49	WG1271705
Naphthalene	U		0.174	2.50	1	04/25/2019 18:49	WG1271705
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 18:49	WG1271705
Styrene	U		0.117	0.500	1	04/25/2019 18:49	WG1271705
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 18:49	WG1271705
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 18:49	WG1271705
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 18:49	WG1271705
Tetrachloroethene	U		0.199	0.500	1	04/25/2019 18:49	WG1271705
Toluene	U		0.412	0.500	1	04/25/2019 18:49	WG1271705
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 18:49	WG1271705
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 18:49	WG1271705
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 18:49	WG1271705
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 18:49	WG1271705
Trichloroethene	U		0.153	0.500	1	04/25/2019 18:49	WG1271705
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	04/25/2019 18:49	WG1271705
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 18:49	WG1271705
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 18:49	WG1271705
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 18:49	WG1271705
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 18:49	WG1271705

JC 5/9/19



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch		
Vinyl acetate	U		0.645	5.00	1	04/25/2019 18:49	WG1271705	¹ Cp	
Vinyl chloride	1.66	J	<u>JO</u>	0.118	0.500	1	04/25/2019 18:49	WG1271705	² Tc
Xylenes, Total	U		0.316	1.50	1	04/25/2019 18:49	WG1271705	³ Ss	
(S) Toluene-d8	101			80.0-120		04/25/2019 18:49	WG1271705	⁴ Cn	
(S) 4-Bromofluorobenzene	106			77.0-126		04/25/2019 18:49	WG1271705	⁵ Sr	
(S) 1,2-Dichloroethane-d4	93.8			70.0-130		04/25/2019 18:49	WG1271705	⁶ Qc	
								⁷ Gl	
								⁸ Al	
								⁹ Sc	

JC 5/9/19



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	310000		2710	20000	1	04/30/2019 15:03	WG1273429

Sample Narrative:

L1092400-02 WG1273429: Endpoint pH 4.5

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	14800		51.9	1000	1	04/26/2019 02:59	WG1271706
Nitrate	U		22.7	100	1	04/26/2019 02:59	WG1271706
Sulfate	23300		77.4	5000	1	04/26/2019 02:59	WG1271706

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	4950	B	102	1000	1	04/29/2019 19:49	WG1272243

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	2870		75.0	500	5	04/29/2019 17:21	WG1271843
Manganese	770		1.25	25.0	5	04/29/2019 17:21	WG1271843

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
Gasoline Range Organics-NWTPH	88.0	J	J	31.6	100	1	04/26/2019 02:29	WG1272107
(S) a,a,a-Trifluorotoluene(FID)	111			78.0-120		04/26/2019 02:29	WG1272107	

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	5090		0.287	0.678	1	05/02/2019 14:20	WG1272501
Ethane	4.00		0.296	1.29	1	05/02/2019 14:20	WG1272501
Ethene	347		0.422	1.27	1	05/02/2019 14:20	WG1272501

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
Acetone	1.58	U	J J0 J3 J4	1.05	25.0	1	04/25/2019 19:09	WG1271705
Acrylonitrile	U			0.873	5.00	1	04/25/2019 19:09	WG1271705
Benzene	U			0.0896	0.500	1	04/25/2019 19:09	WG1271705
Bromobenzene	U			0.133	0.500	1	04/25/2019 19:09	WG1271705
Bromodichloromethane	U			0.0800	0.500	1	04/25/2019 19:09	WG1271705
Bromoform	U			0.145	0.500	1	04/25/2019 19:09	WG1271705
Bromomethane	U	UJ	J0	0.157	2.50	1	04/25/2019 19:09	WG1271705
n-Butylbenzene	U			0.143	0.500	1	04/25/2019 19:09	WG1271705
sec-Butylbenzene	U			0.134	0.500	1	04/25/2019 19:09	WG1271705
tert-Butylbenzene	U			0.183	0.500	1	04/25/2019 19:09	WG1271705
Carbon disulfide	U			0.101	0.500	1	04/25/2019 19:09	WG1271705
Carbon tetrachloride	U			0.159	0.500	1	04/25/2019 19:09	WG1271705

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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	
Chlorobenzene	U		0.140	0.500	1	04/25/2019 19:09	WG1271705	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/25/2019 19:09	WG1271705	² Tc
Chloroethane	0.719	J <u>JJ0</u>	0.141	2.50	1	04/25/2019 19:09	WG1271705	³ Ss
Chloroform	U		0.0860	0.500	1	04/25/2019 19:09	WG1271705	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/25/2019 19:09	WG1271705	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/25/2019 19:09	WG1271705	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/25/2019 19:09	WG1271705	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/25/2019 19:09	WG1271705	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	04/25/2019 19:09	WG1271705	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/25/2019 19:09	WG1271705	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/25/2019 19:09	WG1271705	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/25/2019 19:09	WG1271705	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/25/2019 19:09	WG1271705	
Dichlorodifluoromethane	U		0.127	2.50	1	04/25/2019 19:09	WG1271705	
1,1-Dichloroethane	U		0.114	0.500	1	04/25/2019 19:09	WG1271705	
1,2-Dichloroethane	U		0.108	0.500	1	04/25/2019 19:09	WG1271705	
1,1-Dichloroethene	1.04		0.188	0.500	1	04/25/2019 19:09	WG1271705	
cis-1,2-Dichloroethene	257		0.933	5.00	10	05/01/2019 03:04	WG1274056	
trans-1,2-Dichloroethene	1.94		0.152	0.500	1	04/25/2019 19:09	WG1271705	
1,2-Dichloropropane	U		0.190	0.500	1	04/25/2019 19:09	WG1271705	
1,1-Dichloropropene	U		0.128	0.500	1	04/25/2019 19:09	WG1271705	
1,3-Dichloropropane	U		0.147	1.00	1	04/25/2019 19:09	WG1271705	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/25/2019 19:09	WG1271705	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/25/2019 19:09	WG1271705	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/25/2019 19:09	WG1271705	
2,2-Dichloropropane	U		0.0929	0.500	1	04/25/2019 19:09	WG1271705	
Di-isopropyl ether	U		0.0924	0.500	1	04/25/2019 19:09	WG1271705	
Ethylbenzene	U		0.158	0.500	1	04/25/2019 19:09	WG1271705	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/25/2019 19:09	WG1271705	
2-Hexanone	U		0.757	5.00	1	04/25/2019 19:09	WG1271705	
n-Hexane	U		0.305	5.00	1	04/25/2019 19:09	WG1271705	
Iodomethane	U		0.377	10.0	1	04/25/2019 19:09	WG1271705	
Isopropylbenzene	U		0.126	0.500	1	04/25/2019 19:09	WG1271705	
p-Isopropyltoluene	U		0.138	0.500	1	04/25/2019 19:09	WG1271705	
2-Butanone (MEK)	U		1.28	5.00	1	04/25/2019 19:09	WG1271705	
Methylene Chloride	U		1.07	2.50	1	04/25/2019 19:09	WG1271705	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 19:09	WG1271705	
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 19:09	WG1271705	
Naphthalene	U		0.174	2.50	1	04/25/2019 19:09	WG1271705	
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 19:09	WG1271705	
Styrene	U		0.117	0.500	1	04/25/2019 19:09	WG1271705	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 19:09	WG1271705	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 19:09	WG1271705	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 19:09	WG1271705	
Tetrachloroethene	1.50		0.199	0.500	1	04/25/2019 19:09	WG1271705	
Toluene	U		0.412	0.500	1	04/25/2019 19:09	WG1271705	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 19:09	WG1271705	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 19:09	WG1271705	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 19:09	WG1271705	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 19:09	WG1271705	
Trichloroethene	12.4		0.153	0.500	1	04/25/2019 19:09	WG1271705	
Trichlorofluoromethane	U	UJ <u>J0</u>	0.130	2.50	1	04/25/2019 19:09	WG1271705	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 19:09	WG1271705	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 19:09	WG1271705	JC 5/9/19
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 19:09	WG1271705	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 19:09	WG1271705	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Vinyl acetate	U		0.645	5.00	1	04/25/2019 19:09	WG1271705
Vinyl chloride	383		1.18	5.00	10	05/01/2019 03:04	WG1274056
Xylenes, Total	U		0.316	1.50	1	04/25/2019 19:09	WG1271705
(S) Toluene-d8	97.1			80.0-120		04/25/2019 19:09	WG1271705
(S) Toluene-d8	103			80.0-120		05/01/2019 03:04	WG1274056
(S) 4-Bromofluorobenzene	99.8			77.0-126		04/25/2019 19:09	WG1271705
(S) 4-Bromofluorobenzene	99.5			77.0-126		05/01/2019 03:04	WG1274056
(S) 1,2-Dichloroethane-d4	107			70.0-130		04/25/2019 19:09	WG1271705
(S) 1,2-Dichloroethane-d4	102			70.0-130		05/01/2019 03:04	WG1274056

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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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	04/26/2019 02:53	WG1272107
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	111			78.0-120		04/26/2019 02:53	WG1272107

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	
Acetone	2.68	U	J J0 J3 J4	1.05	25.0	1	04/25/2019 19:29	WG1271705
Acrylonitrile	U			0.873	5.00	1	04/25/2019 19:29	WG1271705
Benzene	U			0.0896	0.500	1	04/25/2019 19:29	WG1271705
Bromobenzene	U			0.133	0.500	1	04/25/2019 19:29	WG1271705
Bromodichloromethane	U			0.0800	0.500	1	04/25/2019 19:29	WG1271705
Bromoform	U			0.145	0.500	1	04/25/2019 19:29	WG1271705
Bromomethane	U	UJ	J0	0.157	2.50	1	04/25/2019 19:29	WG1271705
n-Butylbenzene	U			0.143	0.500	1	04/25/2019 19:29	WG1271705
sec-Butylbenzene	U			0.134	0.500	1	04/25/2019 19:29	WG1271705
tert-Butylbenzene	U			0.183	0.500	1	04/25/2019 19:29	WG1271705
Carbon disulfide	U			0.101	0.500	1	04/25/2019 19:29	WG1271705
Carbon tetrachloride	U			0.159	0.500	1	04/25/2019 19:29	WG1271705
Chlorobenzene	U			0.140	0.500	1	04/25/2019 19:29	WG1271705
Chlorodibromomethane	U			0.128	0.500	1	04/25/2019 19:29	WG1271705
Chloroethane	0.369	J	J J0	0.141	2.50	1	04/25/2019 19:29	WG1271705
Chloroform	U			0.0860	0.500	1	04/25/2019 19:29	WG1271705
Chloromethane	U			0.153	1.25	1	04/25/2019 19:29	WG1271705
2-Chlorotoluene	U			0.111	0.500	1	04/25/2019 19:29	WG1271705
4-Chlorotoluene	U			0.0972	0.500	1	04/25/2019 19:29	WG1271705
1,2-Dibromo-3-Chloropropane	U			0.325	2.50	1	04/25/2019 19:29	WG1271705
1,2-Dibromoethane	U			0.193	0.500	1	04/25/2019 19:29	WG1271705
Dibromomethane	U			0.117	0.500	1	04/25/2019 19:29	WG1271705
1,2-Dichlorobenzene	U			0.101	0.500	1	04/25/2019 19:29	WG1271705
1,3-Dichlorobenzene	U			0.130	0.500	1	04/25/2019 19:29	WG1271705
1,4-Dichlorobenzene	U			0.121	0.500	1	04/25/2019 19:29	WG1271705
Dichlorodifluoromethane	U			0.127	2.50	1	04/25/2019 19:29	WG1271705
1,1-Dichloroethane	U			0.114	0.500	1	04/25/2019 19:29	WG1271705
1,2-Dichloroethane	U			0.108	0.500	1	04/25/2019 19:29	WG1271705
1,1-Dichloroethene	U			0.188	0.500	1	04/25/2019 19:29	WG1271705
cis-1,2-Dichloroethene	1.76			0.0933	0.500	1	05/01/2019 01:58	WG1274056
trans-1,2-Dichloroethene	U			0.152	0.500	1	04/25/2019 19:29	WG1271705
1,2-Dichloropropane	U			0.190	0.500	1	04/25/2019 19:29	WG1271705
1,1-Dichloropropene	U			0.128	0.500	1	04/25/2019 19:29	WG1271705
1,3-Dichloropropane	U			0.147	1.00	1	04/25/2019 19:29	WG1271705
cis-1,3-Dichloropropene	U			0.0976	0.500	1	04/25/2019 19:29	WG1271705
trans-1,3-Dichloropropene	U			0.222	0.500	1	04/25/2019 19:29	WG1271705
trans-1,4-Dichloro-2-butene	U			0.257	5.00	1	04/25/2019 19:29	WG1271705
2,2-Dichloropropane	U			0.0929	0.500	1	04/25/2019 19:29	WG1271705
Di-isopropyl ether	U			0.0924	0.500	1	04/25/2019 19:29	WG1271705
Ethylbenzene	U			0.158	0.500	1	04/25/2019 19:29	WG1271705
Hexachloro-1,3-butadiene	U			0.157	1.00	1	04/25/2019 19:29	WG1271705
2-Hexanone	U			0.757	5.00	1	04/25/2019 19:29	WG1271705
n-Hexane	U			0.305	5.00	1	04/25/2019 19:29	WG1271705
Iodomethane	U			0.377	10.0	1	04/25/2019 19:29	WG1271705
Isopropylbenzene	U			0.126	0.500	1	04/25/2019 19:29	WG1271705
p-Isopropyltoluene	U			0.138	0.500	1	04/25/2019 19:29	WG1271705
2-Butanone (MEK)	U			1.28	5.00	1	04/25/2019 19:29	WG1271705

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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	
Methylene Chloride	U		1.07	2.50	1	04/25/2019 19:29	WG1271705	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 19:29	WG1271705	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 19:29	WG1271705	³ Ss
Naphthalene	U		0.174	2.50	1	04/25/2019 19:29	WG1271705	⁴ Cn
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 19:29	WG1271705	⁵ Sr
Styrene	U		0.117	0.500	1	04/25/2019 19:29	WG1271705	⁶ Qc
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 19:29	WG1271705	⁷ Gl
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 19:29	WG1271705	⁸ Al
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 19:29	WG1271705	⁹ Sc
Tetrachloroethene	1.02		0.199	0.500	1	04/25/2019 19:29	WG1271705	
Toluene	U		0.412	0.500	1	04/25/2019 19:29	WG1271705	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 19:29	WG1271705	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 19:29	WG1271705	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 19:29	WG1271705	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 19:29	WG1271705	
Trichloroethene	0.214	J	0.153	0.500	1	04/25/2019 19:29	WG1271705	
Trichlorofluoromethane	U	UJ	0.130	2.50	1	04/25/2019 19:29	WG1271705	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 19:29	WG1271705	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 19:29	WG1271705	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 19:29	WG1271705	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 19:29	WG1271705	
Vinyl acetate	U		0.645	5.00	1	04/25/2019 19:29	WG1271705	
Vinyl chloride	0.797		0.118	0.500	1	05/01/2019 01:58	WG1274056	
Xylenes, Total	U		0.316	1.50	1	04/25/2019 19:29	WG1271705	
(S) Toluene-d8	94.9			80.0-120		04/25/2019 19:29	WG1271705	
(S) Toluene-d8	103			80.0-120		05/01/2019 01:58	WG1274056	
(S) 4-Bromofluorobenzene	98.6			77.0-126		04/25/2019 19:29	WG1271705	
(S) 4-Bromofluorobenzene	99.7			77.0-126		05/01/2019 01:58	WG1274056	
(S) 1,2-Dichloroethane-d4	106			70.0-130		04/25/2019 19:29	WG1271705	
(S) 1,2-Dichloroethane-d4	100			70.0-130		05/01/2019 01:58	WG1274056	

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Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	174000		2710	20000	1	04/30/2019 15:10	WG1273429

Sample Narrative:

L1092400-04 WG1273429: Endpoint pH 4.5

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	9400		51.9	1000	1	04/26/2019 03:10	WG1271706
Nitrate	U		22.7	100	1	04/26/2019 03:10	WG1271706
Sulfate	9230		77.4	5000	1	04/26/2019 03:10	WG1271706

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	3860	-B-	102	1000	1	04/29/2019 20:49	WG1272243

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	3600	J	75.0	500	5	04/29/2019 17:27	WG1271843
Manganese	385		1.25	25.0	5	04/29/2019 17:27	WG1271843

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/26/2019 03:17	WG1272107
(S) a,a,a-Trifluorotoluene(FID)	111			78.0-120		04/26/2019 03:17	WG1272107

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	412		0.287	0.678	1	05/02/2019 15:36	WG1272501
Ethane	U		0.296	1.29	1	05/02/2019 15:36	WG1272501
Ethene	1.79		0.422	1.27	1	05/02/2019 15:36	WG1272501

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
Acetone	3.82	U	J J0 J3 J4	1.05	25.0	1	04/25/2019 19:49	WG1271705
Acrylonitrile	U			0.873	5.00	1	04/25/2019 19:49	WG1271705
Benzene	U			0.0896	0.500	1	04/25/2019 19:49	WG1271705
Bromobenzene	U			0.133	0.500	1	04/25/2019 19:49	WG1271705
Bromodichloromethane	U			0.0800	0.500	1	04/25/2019 19:49	WG1271705
Bromoform	U			0.145	0.500	1	04/25/2019 19:49	WG1271705
Bromomethane	U	UJ	J0	0.157	2.50	1	04/25/2019 19:49	WG1271705
n-Butylbenzene	U			0.143	0.500	1	04/25/2019 19:49	WG1271705
sec-Butylbenzene	U			0.134	0.500	1	04/25/2019 19:49	WG1271705
tert-Butylbenzene	U			0.183	0.500	1	04/25/2019 19:49	WG1271705
Carbon disulfide	0.394	J	J	0.101	0.500	1	04/25/2019 19:49	WG1271705
Carbon tetrachloride	U			0.159	0.500	1	04/25/2019 19:49	WG1271705

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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
Chlorobenzene	U		0.140	0.500	1	04/25/2019 19:49	WG1271705
Chlorodibromomethane	U		0.128	0.500	1	04/25/2019 19:49	WG1271705
Chloroethane	U	UJ JO	0.141	2.50	1	04/25/2019 19:49	WG1271705
Chloroform	U		0.0860	0.500	1	04/25/2019 19:49	WG1271705
Chloromethane	U		0.153	1.25	1	04/25/2019 19:49	WG1271705
2-Chlorotoluene	U		0.111	0.500	1	04/25/2019 19:49	WG1271705
4-Chlorotoluene	U		0.0972	0.500	1	04/25/2019 19:49	WG1271705
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/25/2019 19:49	WG1271705
1,2-Dibromoethane	U		0.193	0.500	1	04/25/2019 19:49	WG1271705
Dibromomethane	U		0.117	0.500	1	04/25/2019 19:49	WG1271705
1,2-Dichlorobenzene	U		0.101	0.500	1	04/25/2019 19:49	WG1271705
1,3-Dichlorobenzene	U		0.130	0.500	1	04/25/2019 19:49	WG1271705
1,4-Dichlorobenzene	U		0.121	0.500	1	04/25/2019 19:49	WG1271705
Dichlorodifluoromethane	U		0.127	2.50	1	04/25/2019 19:49	WG1271705
1,1-Dichloroethane	U		0.114	0.500	1	04/25/2019 19:49	WG1271705
1,2-Dichloroethane	U		0.108	0.500	1	04/25/2019 19:49	WG1271705
1,1-Dichloroethene	U		0.188	0.500	1	04/25/2019 19:49	WG1271705
cis-1,2-Dichloroethene	1.07		0.0933	0.500	1	05/01/2019 02:20	WG1274056
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/25/2019 19:49	WG1271705
1,2-Dichloropropane	U		0.190	0.500	1	04/25/2019 19:49	WG1271705
1,1-Dichloropropene	U		0.128	0.500	1	04/25/2019 19:49	WG1271705
1,3-Dichloropropane	U		0.147	1.00	1	04/25/2019 19:49	WG1271705
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/25/2019 19:49	WG1271705
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/25/2019 19:49	WG1271705
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/25/2019 19:49	WG1271705
2,2-Dichloropropane	U		0.0929	0.500	1	04/25/2019 19:49	WG1271705
Di-isopropyl ether	U		0.0924	0.500	1	04/25/2019 19:49	WG1271705
Ethylbenzene	U		0.158	0.500	1	04/25/2019 19:49	WG1271705
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/25/2019 19:49	WG1271705
2-Hexanone	U		0.757	5.00	1	04/25/2019 19:49	WG1271705
n-Hexane	U		0.305	5.00	1	04/25/2019 19:49	WG1271705
Iodomethane	U		0.377	10.0	1	04/25/2019 19:49	WG1271705
Isopropylbenzene	U		0.126	0.500	1	04/25/2019 19:49	WG1271705
p-Isopropyltoluene	U		0.138	0.500	1	04/25/2019 19:49	WG1271705
2-Butanone (MEK)	U		1.28	5.00	1	04/25/2019 19:49	WG1271705
Methylene Chloride	U		1.07	2.50	1	04/25/2019 19:49	WG1271705
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 19:49	WG1271705
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 19:49	WG1271705
Naphthalene	U		0.174	2.50	1	04/25/2019 19:49	WG1271705
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 19:49	WG1271705
Styrene	U		0.117	0.500	1	04/25/2019 19:49	WG1271705
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 19:49	WG1271705
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 19:49	WG1271705
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 19:49	WG1271705
Tetrachloroethene	U		0.199	0.500	1	04/25/2019 19:49	WG1271705
Toluene	U		0.412	0.500	1	04/25/2019 19:49	WG1271705
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 19:49	WG1271705
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 19:49	WG1271705
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 19:49	WG1271705
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 19:49	WG1271705
Trichloroethene	U		0.153	0.500	1	04/25/2019 19:49	WG1271705
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	04/25/2019 19:49	WG1271705
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 19:49	WG1271705
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 19:49	WG1271705
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 19:49	WG1271705
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 19:49	WG1271705

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1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Vinyl acetate	U		0.645	5.00	1	04/25/2019 19:49	WG1271705
Vinyl chloride	2.69	J	0.118	0.500	1	05/01/2019 02:20	WG1274056
Xylenes, Total	U		0.316	1.50	1	04/25/2019 19:49	WG1271705
(S) Toluene-d8	103			80.0-120		04/25/2019 19:49	WG1271705
(S) Toluene-d8	103			80.0-120		05/01/2019 02:20	WG1274056
(S) 4-Bromofluorobenzene	103			77.0-126		04/25/2019 19:49	WG1271705
(S) 4-Bromofluorobenzene	97.4			77.0-126		05/01/2019 02:20	WG1274056
(S) 1,2-Dichloroethane-d4	97.4			70.0-130		04/25/2019 19:49	WG1271705
(S) 1,2-Dichloroethane-d4	103			70.0-130		05/01/2019 02:20	WG1274056

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

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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	04/26/2019 01:41	WG1272107
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	111			78.0-120		04/26/2019 01:41	WG1272107

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	
Acetone	1.76	<u>J</u> <u>J0</u> <u>J3</u> <u>J4</u>	1.05	25.0	1	04/25/2019 16:28	WG1271705	
Acrylonitrile	U		0.873	5.00	1	04/25/2019 16:28	WG1271705	
Benzene	U		0.0896	0.500	1	04/25/2019 16:28	WG1271705	
Bromobenzene	U		0.133	0.500	1	04/25/2019 16:28	WG1271705	
Bromodichloromethane	U		0.0800	0.500	1	04/25/2019 16:28	WG1271705	
Bromoform	U		0.145	0.500	1	04/25/2019 16:28	WG1271705	
Bromomethane	U	<u>UJ</u>	<u>J0</u>	0.157	2.50	1	04/25/2019 16:28	WG1271705
n-Butylbenzene	U		0.143	0.500	1	04/25/2019 16:28	WG1271705	
sec-Butylbenzene	U		0.134	0.500	1	04/25/2019 16:28	WG1271705	
tert-Butylbenzene	U		0.183	0.500	1	04/25/2019 16:28	WG1271705	
Carbon disulfide	U		0.101	0.500	1	04/25/2019 16:28	WG1271705	
Carbon tetrachloride	U		0.159	0.500	1	04/25/2019 16:28	WG1271705	
Chlorobenzene	U		0.140	0.500	1	04/25/2019 16:28	WG1271705	
Chlorodibromomethane	U		0.128	0.500	1	04/25/2019 16:28	WG1271705	
Chloroethane	U	<u>UJ</u>	<u>J0</u>	0.141	2.50	1	04/25/2019 16:28	WG1271705
Chloroform	U		0.0860	0.500	1	04/25/2019 16:28	WG1271705	
Chloromethane	U		0.153	1.25	1	04/25/2019 16:28	WG1271705	
2-Chlorotoluene	U		0.111	0.500	1	04/25/2019 16:28	WG1271705	
4-Chlorotoluene	U		0.0972	0.500	1	04/25/2019 16:28	WG1271705	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/25/2019 16:28	WG1271705	
1,2-Dibromoethane	U		0.193	0.500	1	04/25/2019 16:28	WG1271705	
Dibromomethane	U		0.117	0.500	1	04/25/2019 16:28	WG1271705	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/25/2019 16:28	WG1271705	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/25/2019 16:28	WG1271705	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/25/2019 16:28	WG1271705	
Dichlorodifluoromethane	U		0.127	2.50	1	04/25/2019 16:28	WG1271705	
1,1-Dichloroethane	U		0.114	0.500	1	04/25/2019 16:28	WG1271705	
1,2-Dichloroethane	U		0.108	0.500	1	04/25/2019 16:28	WG1271705	
1,1-Dichloroethene	U		0.188	0.500	1	04/25/2019 16:28	WG1271705	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/25/2019 16:28	WG1271705	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/25/2019 16:28	WG1271705	
1,2-Dichloropropane	U		0.190	0.500	1	04/25/2019 16:28	WG1271705	
1,1-Dichloropropene	U		0.128	0.500	1	04/25/2019 16:28	WG1271705	
1,3-Dichloropropane	U		0.147	1.00	1	04/25/2019 16:28	WG1271705	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/25/2019 16:28	WG1271705	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/25/2019 16:28	WG1271705	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/25/2019 16:28	WG1271705	
2,2-Dichloropropane	U		0.0929	0.500	1	04/25/2019 16:28	WG1271705	
Di-isopropyl ether	U		0.0924	0.500	1	04/25/2019 16:28	WG1271705	
Ethylbenzene	U		0.158	0.500	1	04/25/2019 16:28	WG1271705	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/25/2019 16:28	WG1271705	
2-Hexanone	U		0.757	5.00	1	04/25/2019 16:28	WG1271705	
n-Hexane	U		0.305	5.00	1	04/25/2019 16:28	WG1271705	
Iodomethane	U		0.377	10.0	1	04/25/2019 16:28	WG1271705	
Isopropylbenzene	U		0.126	0.500	1	04/25/2019 16:28	WG1271705	
p-Isopropyltoluene	U		0.138	0.500	1	04/25/2019 16:28	WG1271705	
2-Butanone (MEK)	U		1.28	5.00	1	04/25/2019 16:28	WG1271705	

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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	
Methylene Chloride	U		1.07	2.50	1	04/25/2019 16:28	WG1271705	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/25/2019 16:28	WG1271705	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	04/25/2019 16:28	WG1271705	³ Ss
Naphthalene	U		0.174	2.50	1	04/25/2019 16:28	WG1271705	
n-Propylbenzene	U		0.162	0.500	1	04/25/2019 16:28	WG1271705	
Styrene	U		0.117	0.500	1	04/25/2019 16:28	WG1271705	⁴ Cn
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/25/2019 16:28	WG1271705	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/25/2019 16:28	WG1271705	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/25/2019 16:28	WG1271705	
Tetrachloroethene	U		0.199	0.500	1	04/25/2019 16:28	WG1271705	
Toluene	U		0.412	0.500	1	04/25/2019 16:28	WG1271705	⁶ Qc
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/25/2019 16:28	WG1271705	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/25/2019 16:28	WG1271705	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/25/2019 16:28	WG1271705	⁷ Gl
1,1,2-Trichloroethane	U		0.186	0.500	1	04/25/2019 16:28	WG1271705	
Trichloroethene	U		0.153	0.500	1	04/25/2019 16:28	WG1271705	
Trichlorofluoromethane	U	^{UJ} ^{JO}	0.130	2.50	1	04/25/2019 16:28	WG1271705	⁸ Al
1,2,3-Trichloropropane	U		0.247	2.50	1	04/25/2019 16:28	WG1271705	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/25/2019 16:28	WG1271705	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/25/2019 16:28	WG1271705	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/25/2019 16:28	WG1271705	
Vinyl acetate	U		0.645	5.00	1	04/25/2019 16:28	WG1271705	
Vinyl chloride	U	^{UJ} ^{JO}	0.118	0.500	1	04/25/2019 16:28	WG1271705	
Xylenes, Total	U		0.316	1.50	1	04/25/2019 16:28	WG1271705	
(S) Toluene-d8	101			80.0-120		04/25/2019 16:28	WG1271705	
(S) 4-Bromofluorobenzene	105			77.0-126		04/25/2019 16:28	WG1271705	
(S) 1,2-Dichloroethane-d4	92.8			70.0-130		04/25/2019 16:28	WG1271705	⁹ Sc

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ANALYTICAL REPORT

May 08, 2019

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

PES Environmental, Inc.- WA

Sample Delivery Group: L1092440
Samples Received: 04/25/2019
Project Number: 1413.001.05.601
Description: American Linen
Site: AMERICAN LINEN
Report To: Brian O'Neal/Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

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 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-125-042319 L1092440-01 GW

Collected by Ben Hecht
04/23/19 17:00
Received date/time 04/25/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1272107	1	04/26/19 04:05	04/26/19 04:05	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1272563	1	04/26/19 18:07	04/26/19 18:07	BMB	Mt. Juliet, TN

MW-143-042419 L1092440-02 GW

Collected by Ben Hecht
04/24/19 09:10
Received date/time 04/25/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1273787	1	05/02/19 02:46	05/02/19 02:46	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1271815	1	04/25/19 17:52	04/25/19 17:52	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1272254	1	04/26/19 14:22	04/26/19 14:22	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271844	1	04/30/19 09:36	05/07/19 21:51	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1272107	1	04/26/19 04:29	04/26/19 04:29	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1274563	1	05/02/19 10:54	05/02/19 10:54	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1275114	20	05/02/19 17:40	05/02/19 17:40	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1272563	1	04/26/19 18:27	04/26/19 18:27	BMB	Mt. Juliet, TN

MW-908-042419 L1092440-03 GW

Collected by Ben Hecht
04/24/19 07:00
Received date/time 04/25/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1273787	1	05/02/19 02:54	05/02/19 02:54	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1271815	1	04/25/19 18:10	04/25/19 18:10	ST	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1271815	5	04/26/19 01:16	04/26/19 01:16	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1272254	1	04/26/19 15:44	04/26/19 15:44	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271844	1	04/30/19 09:36	05/07/19 21:56	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1272107	1	04/26/19 04:53	04/26/19 04:53	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1274563	1	05/02/19 10:59	05/02/19 10:59	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1272563	1	04/26/19 18:47	04/26/19 18:47	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1274830	50	05/02/19 10:41	05/02/19 10:41	ADM	Mt. Juliet, TN

MW-142-042419 L1092440-04 GW

Collected by Ben Hecht
04/24/19 10:35
Received date/time 04/25/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1273787	1	05/02/19 03:00	05/02/19 03:00	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1271815	1	04/25/19 18:28	04/25/19 18:28	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1272254	1	04/26/19 16:00	04/26/19 16:00	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271844	1	04/30/19 09:36	05/07/19 22:01	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1272107	1	04/26/19 05:17	04/26/19 05:17	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1274563	1	05/02/19 11:08	05/02/19 11:08	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1272563	1	04/26/19 19:07	04/26/19 19:07	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1274830	1	05/02/19 10:21	05/02/19 10:21	ADM	Mt. Juliet, TN

MW-156-042419 L1092440-05 GW

Collected by Ben Hecht
04/24/19 12:30
Received date/time 04/25/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1273787	1	05/02/19 03:08	05/02/19 03:08	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1271815	1	04/25/19 19:21	04/25/19 19:21	ST	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1271815	5	04/26/19 01:34	04/26/19 01:34	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1272254	1	04/26/19 16:20	04/26/19 16:20	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271844	1	04/30/19 09:36	05/07/19 22:05	LD	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-156-042419 L1092440-05 GW

Collected by
Ben Hecht
04/24/19 12:30
Received date/time
04/25/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1272107	1	04/26/19 05:41	04/26/19 05:41	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1274563	1	05/02/19 11:12	05/02/19 11:12	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1272563	1	04/26/19 19:27	04/26/19 19:27	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1274830	50	05/02/19 11:00	05/02/19 11:00	ADM	Mt. Juliet, TN

MW-157-042419 L1092440-06 GW

Collected by
Ben Hecht
04/24/19 14:10
Received date/time
04/25/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1273787	1	05/02/19 03:22	05/02/19 03:22	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1271815	1	04/25/19 19:39	04/25/19 19:39	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1272254	1	04/26/19 16:35	04/26/19 16:35	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271844	1	04/30/19 09:36	05/07/19 22:58	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1272107	1	04/26/19 06:05	04/26/19 06:05	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1274563	1	05/02/19 11:25	05/02/19 11:25	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1272563	1	04/26/19 19:47	04/26/19 19:47	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1274830	50	05/02/19 11:20	05/02/19 11:20	ADM	Mt. Juliet, TN

TRIP BLANK-042419 L1092440-07 GW

Collected by
Ben Hecht
04/24/19 00:00
Received date/time
04/25/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1275218	1	05/02/19 15:18	05/02/19 15:18	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1272563	1	04/26/19 17:27	04/26/19 17:27	BMB	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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 GI
- ⁸ AI
- 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	04/26/2019 04:05	WG1272107
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	111			78.0-120		04/26/2019 04:05	WG1272107

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
Acetone	6.93	<u>J JO</u>	1.05	25.0	1	04/26/2019 18:07	WG1272563
Acrylonitrile	U		0.873	5.00	1	04/26/2019 18:07	WG1272563
Benzene	U		0.0896	0.500	1	04/26/2019 18:07	WG1272563
Bromobenzene	U		0.133	0.500	1	04/26/2019 18:07	WG1272563
Bromodichloromethane	U		0.0800	0.500	1	04/26/2019 18:07	WG1272563
Bromoform	U		0.145	0.500	1	04/26/2019 18:07	WG1272563
Bromomethane	U	<u>J0</u>	0.157	2.50	1	04/26/2019 18:07	WG1272563
n-Butylbenzene	U		0.143	0.500	1	04/26/2019 18:07	WG1272563
sec-Butylbenzene	U		0.134	0.500	1	04/26/2019 18:07	WG1272563
tert-Butylbenzene	U		0.183	0.500	1	04/26/2019 18:07	WG1272563
Carbon disulfide	U		0.101	0.500	1	04/26/2019 18:07	WG1272563
Carbon tetrachloride	U		0.159	0.500	1	04/26/2019 18:07	WG1272563
Chlorobenzene	U		0.140	0.500	1	04/26/2019 18:07	WG1272563
Chlorodibromomethane	U		0.128	0.500	1	04/26/2019 18:07	WG1272563
Chloroethane	U	<u>J0</u>	0.141	2.50	1	04/26/2019 18:07	WG1272563
Chloroform	U		0.0860	0.500	1	04/26/2019 18:07	WG1272563
Chloromethane	U		0.153	1.25	1	04/26/2019 18:07	WG1272563
2-Chlorotoluene	U		0.111	0.500	1	04/26/2019 18:07	WG1272563
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2019 18:07	WG1272563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/26/2019 18:07	WG1272563
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2019 18:07	WG1272563
Dibromomethane	U		0.117	0.500	1	04/26/2019 18:07	WG1272563
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2019 18:07	WG1272563
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2019 18:07	WG1272563
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2019 18:07	WG1272563
Dichlorodifluoromethane	U		0.127	2.50	1	04/26/2019 18:07	WG1272563
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2019 18:07	WG1272563
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2019 18:07	WG1272563
1,1-Dichloroethene	U		0.188	0.500	1	04/26/2019 18:07	WG1272563
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/26/2019 18:07	WG1272563
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/26/2019 18:07	WG1272563
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2019 18:07	WG1272563
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2019 18:07	WG1272563
1,3-Dichloropropane	U		0.147	1.00	1	04/26/2019 18:07	WG1272563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2019 18:07	WG1272563
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2019 18:07	WG1272563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2019 18:07	WG1272563
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2019 18:07	WG1272563
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2019 18:07	WG1272563
Ethylbenzene	U		0.158	0.500	1	04/26/2019 18:07	WG1272563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2019 18:07	WG1272563
2-Hexanone	U	<u>J3</u>	0.757	5.00	1	04/26/2019 18:07	WG1272563
n-Hexane	U		0.305	5.00	1	04/26/2019 18:07	WG1272563
Iodomethane	U		0.377	10.0	1	04/26/2019 18:07	WG1272563
Isopropylbenzene	U		0.126	0.500	1	04/26/2019 18:07	WG1272563
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2019 18:07	WG1272563
2-Butanone (MEK)	U		1.28	5.00	1	04/26/2019 18:07	WG1272563



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	04/26/2019 18:07	WG1272563	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 18:07	WG1272563	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 18:07	WG1272563	³ Ss
Naphthalene	U		0.174	2.50	1	04/26/2019 18:07	WG1272563	
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 18:07	WG1272563	
Styrene	U		0.117	0.500	1	04/26/2019 18:07	WG1272563	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 18:07	WG1272563	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 18:07	WG1272563	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 18:07	WG1272563	
Tetrachloroethene	U		0.199	0.500	1	04/26/2019 18:07	WG1272563	
Toluene	U		0.412	0.500	1	04/26/2019 18:07	WG1272563	⁶ Qc
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 18:07	WG1272563	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 18:07	WG1272563	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 18:07	WG1272563	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 18:07	WG1272563	
Trichloroethene	U		0.153	0.500	1	04/26/2019 18:07	WG1272563	
Trichlorofluoromethane	U	¹⁰	0.130	2.50	1	04/26/2019 18:07	WG1272563	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 18:07	WG1272563	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 18:07	WG1272563	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 18:07	WG1272563	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 18:07	WG1272563	
Vinyl acetate	U		0.645	5.00	1	04/26/2019 18:07	WG1272563	
Vinyl chloride	U	¹⁰	0.118	0.500	1	04/26/2019 18:07	WG1272563	
Xylenes, Total	U		0.316	1.50	1	04/26/2019 18:07	WG1272563	
(S) Toluene-d8	96.5			80.0-120		04/26/2019 18:07	WG1272563	
(S) 4-Bromofluorobenzene	106			77.0-126		04/26/2019 18:07	WG1272563	
(S) 1,2-Dichloroethane-d4	92.7			70.0-130		04/26/2019 18:07	WG1272563	



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	393000		2710	20000	1	05/02/2019 02:46	WG1273787

Sample Narrative:

L1092440-02 WG1273787: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	56200		51.9	1000	1	04/25/2019 17:52	WG1271815
Nitrate	U		22.7	100	1	04/25/2019 17:52	WG1271815
Sulfate	8530		77.4	5000	1	04/25/2019 17:52	WG1271815

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	7190		102	1000	1	04/26/2019 14:22	WG1272254

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	687	<u>B</u>	15.0	100	1	05/07/2019 21:51	WG1271844
Manganese	317		0.250	5.00	1	05/07/2019 21:51	WG1271844

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/26/2019 04:29	WG1272107
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	111			78.0-120		04/26/2019 04:29	WG1272107

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	6940		5.74	13.6	20	05/02/2019 17:40	WG1275114
Ethane	125		0.296	1.29	1	05/02/2019 10:54	WG1274563
Ethene	U		0.422	1.27	1	05/02/2019 10:54	WG1274563

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	2.44	<u>J JO</u>	1.05	25.0	1	04/26/2019 18:27	WG1272563
Acrylonitrile	U		0.873	5.00	1	04/26/2019 18:27	WG1272563
Benzene	U		0.0896	0.500	1	04/26/2019 18:27	WG1272563
Bromobenzene	U		0.133	0.500	1	04/26/2019 18:27	WG1272563
Bromodichloromethane	U		0.0800	0.500	1	04/26/2019 18:27	WG1272563
Bromochloromethane	U		0.145	0.500	1	04/26/2019 18:27	WG1272563
Bromoform	U		0.186	0.500	1	04/26/2019 18:27	WG1272563
Bromomethane	U	<u>JO</u>	0.157	2.50	1	04/26/2019 18:27	WG1272563
n-Butylbenzene	U		0.143	0.500	1	04/26/2019 18:27	WG1272563
sec-Butylbenzene	U		0.134	0.500	1	04/26/2019 18:27	WG1272563
tert-Butylbenzene	U		0.183	0.500	1	04/26/2019 18:27	WG1272563
Carbon disulfide	0.308	<u>J JO</u>	0.101	0.500	1	04/26/2019 18:27	WG1272563
Carbon tetrachloride	U		0.159	0.500	1	04/26/2019 18:27	WG1272563



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	04/26/2019 18:27	WG1272563	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/26/2019 18:27	WG1272563	² Tc
Chloroethane	U	J0	0.141	2.50	1	04/26/2019 18:27	WG1272563	³ Ss
Chloroform	U		0.0860	0.500	1	04/26/2019 18:27	WG1272563	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/26/2019 18:27	WG1272563	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/26/2019 18:27	WG1272563	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2019 18:27	WG1272563	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/26/2019 18:27	WG1272563	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2019 18:27	WG1272563	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/26/2019 18:27	WG1272563	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2019 18:27	WG1272563	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2019 18:27	WG1272563	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2019 18:27	WG1272563	
Dichlorodifluoromethane	U		0.127	2.50	1	04/26/2019 18:27	WG1272563	
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2019 18:27	WG1272563	
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2019 18:27	WG1272563	
1,1-Dichloroethene	U		0.188	0.500	1	04/26/2019 18:27	WG1272563	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/26/2019 18:27	WG1272563	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/26/2019 18:27	WG1272563	
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2019 18:27	WG1272563	
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2019 18:27	WG1272563	
1,3-Dichloropropane	U		0.147	1.00	1	04/26/2019 18:27	WG1272563	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2019 18:27	WG1272563	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2019 18:27	WG1272563	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2019 18:27	WG1272563	
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2019 18:27	WG1272563	
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2019 18:27	WG1272563	
Ethylbenzene	U		0.158	0.500	1	04/26/2019 18:27	WG1272563	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2019 18:27	WG1272563	
2-Hexanone	U	J3	0.757	5.00	1	04/26/2019 18:27	WG1272563	
n-Hexane	U		0.305	5.00	1	04/26/2019 18:27	WG1272563	
Iodomethane	U		0.377	10.0	1	04/26/2019 18:27	WG1272563	
Isopropylbenzene	U		0.126	0.500	1	04/26/2019 18:27	WG1272563	
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2019 18:27	WG1272563	
2-Butanone (MEK)	U		1.28	5.00	1	04/26/2019 18:27	WG1272563	
Methylene Chloride	U		1.07	2.50	1	04/26/2019 18:27	WG1272563	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 18:27	WG1272563	
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 18:27	WG1272563	
Naphthalene	U		0.174	2.50	1	04/26/2019 18:27	WG1272563	
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 18:27	WG1272563	
Styrene	U		0.117	0.500	1	04/26/2019 18:27	WG1272563	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 18:27	WG1272563	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 18:27	WG1272563	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 18:27	WG1272563	
Tetrachloroethene	U		0.199	0.500	1	04/26/2019 18:27	WG1272563	
Toluene	U		0.412	0.500	1	04/26/2019 18:27	WG1272563	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 18:27	WG1272563	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 18:27	WG1272563	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 18:27	WG1272563	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 18:27	WG1272563	
Trichloroethene	U		0.153	0.500	1	04/26/2019 18:27	WG1272563	
Trichlorofluoromethane	U	J0	0.130	2.50	1	04/26/2019 18:27	WG1272563	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 18:27	WG1272563	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 18:27	WG1272563	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 18:27	WG1272563	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 18:27	WG1272563	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
Vinyl acetate	U		0.645	5.00	1	04/26/2019 18:27	WG1272563	¹ Cp
Vinyl chloride	U	<u>J0</u>	0.118	0.500	1	04/26/2019 18:27	WG1272563	² Tc
Xylenes, Total	U		0.316	1.50	1	04/26/2019 18:27	WG1272563	³ Ss
(S) Toluene-d8	101			80.0-120		04/26/2019 18:27	WG1272563	⁴ Cn
(S) 4-Bromofluorobenzene	107			77.0-126		04/26/2019 18:27	WG1272563	⁵ Sr
(S) 1,2-Dichloroethane-d4	92.2			70.0-130		04/26/2019 18:27	WG1272563	⁶ Qc
								⁷ Gl
								⁸ Al
								⁹ Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	612000		2710	20000	1	05/02/2019 02:54	WG1273787

Sample Narrative:

L1092440-03 WG1273787: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	19300		51.9	1000	1	04/25/2019 18:10	WG1271815
Nitrate	259		22.7	100	1	04/25/2019 18:10	WG1271815
Sulfate	145000		387	25000	5	04/26/2019 01:16	WG1271815

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	56000		102	1000	1	04/26/2019 15:44	WG1272254

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	4760		15.0	100	1	05/07/2019 21:56	WG1271844
Manganese	9750		0.250	5.00	1	05/07/2019 21:56	WG1271844

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	2600		31.6	100	1	04/26/2019 04:53	WG1272107
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	112			78.0-120		04/26/2019 04:53	WG1272107

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	1590		0.287	0.678	1	05/02/2019 10:59	WG1274563
Ethane	28.4		0.296	1.29	1	05/02/2019 10:59	WG1274563
Ethene	U		0.422	1.27	1	05/02/2019 10:59	WG1274563

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	2.50	J JO	1.05	25.0	1	04/26/2019 18:47	WG1272563
Acrylonitrile	U		0.873	5.00	1	04/26/2019 18:47	WG1272563
Benzene	0.330	J	0.0896	0.500	1	04/26/2019 18:47	WG1272563
Bromobenzene	U		0.133	0.500	1	04/26/2019 18:47	WG1272563
Bromodichloromethane	U		0.0800	0.500	1	04/26/2019 18:47	WG1272563
Bromochloromethane	U		0.145	0.500	1	04/26/2019 18:47	WG1272563
Bromoform	U		0.186	0.500	1	04/26/2019 18:47	WG1272563
Bromomethane	U	J O	0.157	2.50	1	04/26/2019 18:47	WG1272563
n-Butylbenzene	U		0.143	0.500	1	04/26/2019 18:47	WG1272563
sec-Butylbenzene	U		0.134	0.500	1	04/26/2019 18:47	WG1272563
tert-Butylbenzene	U		0.183	0.500	1	04/26/2019 18:47	WG1272563
Carbon disulfide	U		0.101	0.500	1	04/26/2019 18:47	WG1272563
Carbon tetrachloride	U		0.159	0.500	1	04/26/2019 18:47	WG1272563



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	04/26/2019 18:47	WG1272563	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/26/2019 18:47	WG1272563	² Tc
Chloroethane	U	J0	0.141	2.50	1	04/26/2019 18:47	WG1272563	³ Ss
Chloroform	U		0.0860	0.500	1	04/26/2019 18:47	WG1272563	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/26/2019 18:47	WG1272563	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/26/2019 18:47	WG1272563	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2019 18:47	WG1272563	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/26/2019 18:47	WG1272563	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2019 18:47	WG1272563	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/26/2019 18:47	WG1272563	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2019 18:47	WG1272563	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2019 18:47	WG1272563	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2019 18:47	WG1272563	
Dichlorodifluoromethane	U		0.127	2.50	1	04/26/2019 18:47	WG1272563	
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2019 18:47	WG1272563	
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2019 18:47	WG1272563	
1,1-Dichloroethene	11.8		0.188	0.500	1	04/26/2019 18:47	WG1272563	
cis-1,2-Dichloroethene	1760		4.66	25.0	50	05/02/2019 10:41	WG1274830	
trans-1,2-Dichloroethene	9.31		0.152	0.500	1	04/26/2019 18:47	WG1272563	
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2019 18:47	WG1272563	
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2019 18:47	WG1272563	
1,3-Dichloropropane	U		0.147	1.00	1	04/26/2019 18:47	WG1272563	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2019 18:47	WG1272563	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2019 18:47	WG1272563	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2019 18:47	WG1272563	
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2019 18:47	WG1272563	
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2019 18:47	WG1272563	
Ethylbenzene	U		0.158	0.500	1	04/26/2019 18:47	WG1272563	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2019 18:47	WG1272563	
2-Hexanone	U	J3	0.757	5.00	1	04/26/2019 18:47	WG1272563	
n-Hexane	U		0.305	5.00	1	04/26/2019 18:47	WG1272563	
Iodomethane	U		0.377	10.0	1	04/26/2019 18:47	WG1272563	
Isopropylbenzene	U		0.126	0.500	1	04/26/2019 18:47	WG1272563	
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2019 18:47	WG1272563	
2-Butanone (MEK)	U		1.28	5.00	1	04/26/2019 18:47	WG1272563	
Methylene Chloride	U		1.07	2.50	1	04/26/2019 18:47	WG1272563	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 18:47	WG1272563	
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 18:47	WG1272563	
Naphthalene	U		0.174	2.50	1	04/26/2019 18:47	WG1272563	
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 18:47	WG1272563	
Styrene	U		0.117	0.500	1	04/26/2019 18:47	WG1272563	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 18:47	WG1272563	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 18:47	WG1272563	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 18:47	WG1272563	
Tetrachloroethene	1440		9.95	25.0	50	05/02/2019 10:41	WG1274830	
Toluene	U		0.412	0.500	1	04/26/2019 18:47	WG1272563	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 18:47	WG1272563	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 18:47	WG1272563	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 18:47	WG1272563	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 18:47	WG1272563	
Trichloroethene	717		7.65	25.0	50	05/02/2019 10:41	WG1274830	
Trichlorofluoromethane	U	J0	0.130	2.50	1	04/26/2019 18:47	WG1272563	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 18:47	WG1272563	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 18:47	WG1272563	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 18:47	WG1272563	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 18:47	WG1272563	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Vinyl acetate	U		0.645	5.00	1	04/26/2019 18:47	WG1272563	¹ Cp
Vinyl chloride	3.34	<u>J0</u>	0.118	0.500	1	04/26/2019 18:47	WG1272563	² Tc
Xylenes, Total	U		0.316	1.50	1	04/26/2019 18:47	WG1272563	³ Ss
(S) Toluene-d8	100			80.0-120		04/26/2019 18:47	WG1272563	⁴ Cn
(S) Toluene-d8	108			80.0-120		05/02/2019 10:41	WG1274830	⁵ Sr
(S) 4-Bromofluorobenzene	107			77.0-126		04/26/2019 18:47	WG1272563	⁶ Qc
(S) 4-Bromofluorobenzene	100			77.0-126		05/02/2019 10:41	WG1274830	⁷ Gl
(S) 1,2-Dichloroethane-d4	90.2			70.0-130		04/26/2019 18:47	WG1272563	⁸ Al
(S) 1,2-Dichloroethane-d4	90.2			70.0-130		05/02/2019 10:41	WG1274830	⁹ Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	798000		2710	20000	1	05/02/2019 03:00	WG1273787

Sample Narrative:

L1092440-04 WG1273787: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	9760		51.9	1000	1	04/25/2019 18:28	WG1271815
Nitrate	U		22.7	100	1	04/25/2019 18:28	WG1271815
Sulfate	27300		77.4	5000	1	04/25/2019 18:28	WG1271815

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	31700		102	1000	1	04/26/2019 16:00	WG1272254

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	3500		15.0	100	1	05/07/2019 22:01	WG1271844
Manganese	1990		0.250	5.00	1	05/07/2019 22:01	WG1271844

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/26/2019 05:17	WG1272107
(S) a,a,a-Trifluorotoluene(FID)	111			78.0-120		04/26/2019 05:17	WG1272107

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	3560		0.287	0.678	1	05/02/2019 11:08	WG1274563
Ethane	19.2		0.296	1.29	1	05/02/2019 11:08	WG1274563
Ethene	U		0.422	1.27	1	05/02/2019 11:08	WG1274563

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	2.52	J JO	1.05	25.0	1	04/26/2019 19:07	WG1272563
Acrylonitrile	U		0.873	5.00	1	04/26/2019 19:07	WG1272563
Benzene	0.361	J	0.0896	0.500	1	04/26/2019 19:07	WG1272563
Bromobenzene	U		0.133	0.500	1	04/26/2019 19:07	WG1272563
Bromodichloromethane	U		0.0800	0.500	1	04/26/2019 19:07	WG1272563
Bromoform	U		0.145	0.500	1	04/26/2019 19:07	WG1272563
Bromomethane	U	J0	0.157	2.50	1	04/26/2019 19:07	WG1272563
n-Butylbenzene	U		0.143	0.500	1	04/26/2019 19:07	WG1272563
sec-Butylbenzene	U		0.134	0.500	1	04/26/2019 19:07	WG1272563
tert-Butylbenzene	U		0.183	0.500	1	04/26/2019 19:07	WG1272563
Carbon disulfide	U		0.101	0.500	1	04/26/2019 19:07	WG1272563
Carbon tetrachloride	U		0.159	0.500	1	04/26/2019 19:07	WG1272563



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	04/26/2019 19:07	WG1272563	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/26/2019 19:07	WG1272563	² Tc
Chloroethane	U	J0	0.141	2.50	1	04/26/2019 19:07	WG1272563	³ Ss
Chloroform	U		0.0860	0.500	1	04/26/2019 19:07	WG1272563	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/26/2019 19:07	WG1272563	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/26/2019 19:07	WG1272563	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2019 19:07	WG1272563	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/26/2019 19:07	WG1272563	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2019 19:07	WG1272563	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/26/2019 19:07	WG1272563	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2019 19:07	WG1272563	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2019 19:07	WG1272563	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2019 19:07	WG1272563	
Dichlorodifluoromethane	U		0.127	2.50	1	04/26/2019 19:07	WG1272563	
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2019 19:07	WG1272563	
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2019 19:07	WG1272563	
1,1-Dichloroethene	U		0.188	0.500	1	04/26/2019 19:07	WG1272563	
cis-1,2-Dichloroethene	5.67		0.0933	0.500	1	05/02/2019 10:21	WG1274830	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/26/2019 19:07	WG1272563	
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2019 19:07	WG1272563	
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2019 19:07	WG1272563	
1,3-Dichloropropane	U		0.147	1.00	1	04/26/2019 19:07	WG1272563	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2019 19:07	WG1272563	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2019 19:07	WG1272563	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2019 19:07	WG1272563	
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2019 19:07	WG1272563	
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2019 19:07	WG1272563	
Ethylbenzene	U		0.158	0.500	1	04/26/2019 19:07	WG1272563	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2019 19:07	WG1272563	
2-Hexanone	U	J3	0.757	5.00	1	04/26/2019 19:07	WG1272563	
n-Hexane	U		0.305	5.00	1	04/26/2019 19:07	WG1272563	
Iodomethane	U		0.377	10.0	1	04/26/2019 19:07	WG1272563	
Isopropylbenzene	U		0.126	0.500	1	04/26/2019 19:07	WG1272563	
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2019 19:07	WG1272563	
2-Butanone (MEK)	U		1.28	5.00	1	04/26/2019 19:07	WG1272563	
Methylene Chloride	U		1.07	2.50	1	04/26/2019 19:07	WG1272563	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 19:07	WG1272563	
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 19:07	WG1272563	
Naphthalene	U		0.174	2.50	1	04/26/2019 19:07	WG1272563	
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 19:07	WG1272563	
Styrene	U		0.117	0.500	1	04/26/2019 19:07	WG1272563	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 19:07	WG1272563	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 19:07	WG1272563	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 19:07	WG1272563	
Tetrachloroethene	U		0.199	0.500	1	05/02/2019 10:21	WG1274830	
Toluene	U		0.412	0.500	1	04/26/2019 19:07	WG1272563	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 19:07	WG1272563	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 19:07	WG1272563	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 19:07	WG1272563	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 19:07	WG1272563	
Trichloroethene	0.156	J	0.153	0.500	1	05/02/2019 10:21	WG1274830	
Trichlorofluoromethane	U	J0	0.130	2.50	1	04/26/2019 19:07	WG1272563	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 19:07	WG1272563	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 19:07	WG1272563	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 19:07	WG1272563	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 19:07	WG1272563	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Vinyl acetate	U		0.645	5.00	1	04/26/2019 19:07	WG1272563	¹ Cp
Vinyl chloride	4.39	<u>J0</u>	0.118	0.500	1	04/26/2019 19:07	WG1272563	² Tc
Xylenes, Total	U		0.316	1.50	1	04/26/2019 19:07	WG1272563	³ Ss
(S) Toluene-d8	100			80.0-120		04/26/2019 19:07	WG1272563	⁴ Cn
(S) Toluene-d8	107			80.0-120		05/02/2019 10:21	WG1274830	⁵ Sr
(S) 4-Bromofluorobenzene	107			77.0-126		04/26/2019 19:07	WG1272563	⁶ Qc
(S) 4-Bromofluorobenzene	97.3			77.0-126		05/02/2019 10:21	WG1274830	⁷ Gl
(S) 1,2-Dichloroethane-d4	92.9			70.0-130		04/26/2019 19:07	WG1272563	⁸ Al
(S) 1,2-Dichloroethane-d4	89.2			70.0-130		05/02/2019 10:21	WG1274830	⁹ Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	618000		2710	20000	1	05/02/2019 03:08	WG1273787

Sample Narrative:

L1092440-05 WG1273787: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	18600		51.9	1000	1	04/25/2019 19:21	WG1271815
Nitrate	U		22.7	100	1	04/25/2019 19:21	WG1271815
Sulfate	145000		387	25000	5	04/26/2019 01:34	WG1271815

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	57300		102	1000	1	04/26/2019 16:20	WG1272254

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	3810		15.0	100	1	05/07/2019 22:05	WG1271844
Manganese	9010		0.250	5.00	1	05/07/2019 22:05	WG1271844

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	2570		31.6	100	1	04/26/2019 05:41	WG1272107
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	112			78.0-120		04/26/2019 05:41	WG1272107

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	1720		0.287	0.678	1	05/02/2019 11:12	WG1274563
Ethane	31.2		0.296	1.29	1	05/02/2019 11:12	WG1274563
Ethene	U		0.422	1.27	1	05/02/2019 11:12	WG1274563

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	2.00	J JO	1.05	25.0	1	04/26/2019 19:27	WG1272563
Acrylonitrile	U		0.873	5.00	1	04/26/2019 19:27	WG1272563
Benzene	0.339	J	0.0896	0.500	1	04/26/2019 19:27	WG1272563
Bromobenzene	U		0.133	0.500	1	04/26/2019 19:27	WG1272563
Bromodichloromethane	U		0.0800	0.500	1	04/26/2019 19:27	WG1272563
Bromochloromethane	U		0.145	0.500	1	04/26/2019 19:27	WG1272563
Bromoform	U		0.186	0.500	1	04/26/2019 19:27	WG1272563
Bromomethane	U	J0	0.157	2.50	1	04/26/2019 19:27	WG1272563
n-Butylbenzene	U		0.143	0.500	1	04/26/2019 19:27	WG1272563
sec-Butylbenzene	U		0.134	0.500	1	04/26/2019 19:27	WG1272563
tert-Butylbenzene	U		0.183	0.500	1	04/26/2019 19:27	WG1272563
Carbon disulfide	U		0.101	0.500	1	04/26/2019 19:27	WG1272563
Carbon tetrachloride	U		0.159	0.500	1	04/26/2019 19:27	WG1272563



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	04/26/2019 19:27	WG1272563	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/26/2019 19:27	WG1272563	² Tc
Chloroethane	U	J0	0.141	2.50	1	04/26/2019 19:27	WG1272563	³ Ss
Chloroform	U		0.0860	0.500	1	04/26/2019 19:27	WG1272563	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/26/2019 19:27	WG1272563	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/26/2019 19:27	WG1272563	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2019 19:27	WG1272563	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/26/2019 19:27	WG1272563	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2019 19:27	WG1272563	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/26/2019 19:27	WG1272563	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2019 19:27	WG1272563	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2019 19:27	WG1272563	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2019 19:27	WG1272563	
Dichlorodifluoromethane	U		0.127	2.50	1	04/26/2019 19:27	WG1272563	
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2019 19:27	WG1272563	
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2019 19:27	WG1272563	
1,1-Dichloroethene	12.3		0.188	0.500	1	04/26/2019 19:27	WG1272563	
cis-1,2-Dichloroethene	1770		4.66	25.0	50	05/02/2019 11:00	WG1274830	
trans-1,2-Dichloroethene	9.41		0.152	0.500	1	04/26/2019 19:27	WG1272563	
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2019 19:27	WG1272563	
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2019 19:27	WG1272563	
1,3-Dichloropropane	U		0.147	1.00	1	04/26/2019 19:27	WG1272563	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2019 19:27	WG1272563	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2019 19:27	WG1272563	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2019 19:27	WG1272563	
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2019 19:27	WG1272563	
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2019 19:27	WG1272563	
Ethylbenzene	U		0.158	0.500	1	04/26/2019 19:27	WG1272563	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2019 19:27	WG1272563	
2-Hexanone	U	J3	0.757	5.00	1	04/26/2019 19:27	WG1272563	
n-Hexane	U		0.305	5.00	1	04/26/2019 19:27	WG1272563	
Iodomethane	U		0.377	10.0	1	04/26/2019 19:27	WG1272563	
Isopropylbenzene	U		0.126	0.500	1	04/26/2019 19:27	WG1272563	
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2019 19:27	WG1272563	
2-Butanone (MEK)	U		1.28	5.00	1	04/26/2019 19:27	WG1272563	
Methylene Chloride	U		1.07	2.50	1	04/26/2019 19:27	WG1272563	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 19:27	WG1272563	
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 19:27	WG1272563	
Naphthalene	U		0.174	2.50	1	04/26/2019 19:27	WG1272563	
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 19:27	WG1272563	
Styrene	U		0.117	0.500	1	04/26/2019 19:27	WG1272563	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 19:27	WG1272563	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 19:27	WG1272563	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 19:27	WG1272563	
Tetrachloroethene	1430		9.95	25.0	50	05/02/2019 11:00	WG1274830	
Toluene	U		0.412	0.500	1	04/26/2019 19:27	WG1272563	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 19:27	WG1272563	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 19:27	WG1272563	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 19:27	WG1272563	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 19:27	WG1272563	
Trichloroethene	727		7.65	25.0	50	05/02/2019 11:00	WG1274830	
Trichlorofluoromethane	U	J0	0.130	2.50	1	04/26/2019 19:27	WG1272563	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 19:27	WG1272563	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 19:27	WG1272563	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 19:27	WG1272563	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 19:27	WG1272563	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Vinyl acetate	U		0.645	5.00	1	04/26/2019 19:27	WG1272563	¹ Cp
Vinyl chloride	3.21	<u>J0</u>	0.118	0.500	1	04/26/2019 19:27	WG1272563	² Tc
Xylenes, Total	U		0.316	1.50	1	04/26/2019 19:27	WG1272563	³ Ss
(S) Toluene-d8	96.4			80.0-120		04/26/2019 19:27	WG1272563	
(S) Toluene-d8	106			80.0-120		05/02/2019 11:00	WG1274830	
(S) 4-Bromofluorobenzene	99.4			77.0-126		04/26/2019 19:27	WG1272563	
(S) 4-Bromofluorobenzene	99.5			77.0-126		05/02/2019 11:00	WG1274830	
(S) 1,2-Dichloroethane-d4	105			70.0-130		04/26/2019 19:27	WG1272563	
(S) 1,2-Dichloroethane-d4	91.1			70.0-130		05/02/2019 11:00	WG1274830	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	513000		2710	20000	1	05/02/2019 03:22	WG1273787

Sample Narrative:

L1092440-06 WG1273787: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	34100		51.9	1000	1	04/25/2019 19:39	WG1271815
Nitrate	U		22.7	100	1	04/25/2019 19:39	WG1271815
Sulfate	95000		77.4	5000	1	04/25/2019 19:39	WG1271815

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	39500		102	1000	1	04/26/2019 16:35	WG1272254

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	9400		15.0	100	1	05/07/2019 22:58	WG1271844
Manganese	2130		0.250	5.00	1	05/07/2019 22:58	WG1271844

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	3210		31.6	100	1	04/26/2019 06:05	WG1272107
(S) a,a,a-Trifluorotoluene(FID)	112			78.0-120		04/26/2019 06:05	WG1272107

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	5510		0.287	0.678	1	05/02/2019 11:25	WG1274563
Ethane	36.0		0.296	1.29	1	05/02/2019 11:25	WG1274563
Ethene	119		0.422	1.27	1	05/02/2019 11:25	WG1274563

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	3.28	J JO	1.05	25.0	1	04/26/2019 19:47	WG1272563
Acrylonitrile	U		0.873	5.00	1	04/26/2019 19:47	WG1272563
Benzene	0.254	J	0.0896	0.500	1	04/26/2019 19:47	WG1272563
Bromobenzene	U		0.133	0.500	1	04/26/2019 19:47	WG1272563
Bromodichloromethane	U		0.0800	0.500	1	04/26/2019 19:47	WG1272563
Bromoform	U		0.145	0.500	1	04/26/2019 19:47	WG1272563
Bromomethane	U	J O	0.157	2.50	1	04/26/2019 19:47	WG1272563
n-Butylbenzene	U		0.143	0.500	1	04/26/2019 19:47	WG1272563
sec-Butylbenzene	U		0.134	0.500	1	04/26/2019 19:47	WG1272563
tert-Butylbenzene	U		0.183	0.500	1	04/26/2019 19:47	WG1272563
Carbon disulfide	0.137	J	0.101	0.500	1	04/26/2019 19:47	WG1272563
Carbon tetrachloride	U		0.159	0.500	1	04/26/2019 19:47	WG1272563



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	04/26/2019 19:47	WG1272563	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/26/2019 19:47	WG1272563	² Tc
Chloroethane	0.752	J JO	0.141	2.50	1	04/26/2019 19:47	WG1272563	³ Ss
Chloroform	U		0.0860	0.500	1	04/26/2019 19:47	WG1272563	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/26/2019 19:47	WG1272563	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/26/2019 19:47	WG1272563	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2019 19:47	WG1272563	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/26/2019 19:47	WG1272563	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2019 19:47	WG1272563	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/26/2019 19:47	WG1272563	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2019 19:47	WG1272563	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2019 19:47	WG1272563	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2019 19:47	WG1272563	
Dichlorodifluoromethane	U		0.127	2.50	1	04/26/2019 19:47	WG1272563	
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2019 19:47	WG1272563	
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2019 19:47	WG1272563	
1,1-Dichloroethene	11.7		0.188	0.500	1	04/26/2019 19:47	WG1272563	
cis-1,2-Dichloroethene	3550		4.66	25.0	50	05/02/2019 11:20	WG1274830	
trans-1,2-Dichloroethene	15.9		0.152	0.500	1	04/26/2019 19:47	WG1272563	
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2019 19:47	WG1272563	
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2019 19:47	WG1272563	
1,3-Dichloropropane	U		0.147	1.00	1	04/26/2019 19:47	WG1272563	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2019 19:47	WG1272563	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2019 19:47	WG1272563	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2019 19:47	WG1272563	
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2019 19:47	WG1272563	
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2019 19:47	WG1272563	
Ethylbenzene	U		0.158	0.500	1	04/26/2019 19:47	WG1272563	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2019 19:47	WG1272563	
2-Hexanone	U	J3	0.757	5.00	1	04/26/2019 19:47	WG1272563	
n-Hexane	U		0.305	5.00	1	04/26/2019 19:47	WG1272563	
Iodomethane	U		0.377	10.0	1	04/26/2019 19:47	WG1272563	
Isopropylbenzene	U		0.126	0.500	1	04/26/2019 19:47	WG1272563	
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2019 19:47	WG1272563	
2-Butanone (MEK)	U		1.28	5.00	1	04/26/2019 19:47	WG1272563	
Methylene Chloride	U		1.07	2.50	1	04/26/2019 19:47	WG1272563	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 19:47	WG1272563	
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 19:47	WG1272563	
Naphthalene	U		0.174	2.50	1	04/26/2019 19:47	WG1272563	
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 19:47	WG1272563	
Styrene	U		0.117	0.500	1	04/26/2019 19:47	WG1272563	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 19:47	WG1272563	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 19:47	WG1272563	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 19:47	WG1272563	
Tetrachloroethene	U		9.95	25.0	50	05/02/2019 11:20	WG1274830	
Toluene	U		0.412	0.500	1	04/26/2019 19:47	WG1272563	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 19:47	WG1272563	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 19:47	WG1272563	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 19:47	WG1272563	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 19:47	WG1272563	
Trichloroethene	8.52	J	7.65	25.0	50	05/02/2019 11:20	WG1274830	
Trichlorofluoromethane	U	J0	0.130	2.50	1	04/26/2019 19:47	WG1272563	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 19:47	WG1272563	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 19:47	WG1272563	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 19:47	WG1272563	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 19:47	WG1272563	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Vinyl acetate	U		0.645	5.00	1	04/26/2019 19:47	WG1272563
Vinyl chloride	622		5.90	25.0	50	05/02/2019 11:20	WG1274830
Xylenes, Total	U		0.316	1.50	1	04/26/2019 19:47	WG1272563
(S) Toluene-d8	101			80.0-120		04/26/2019 19:47	WG1272563
(S) Toluene-d8	106			80.0-120		05/02/2019 11:20	WG1274830
(S) 4-Bromofluorobenzene	106			77.0-126		04/26/2019 19:47	WG1272563
(S) 4-Bromofluorobenzene	100			77.0-126		05/02/2019 11:20	WG1274830
(S) 1,2-Dichloroethane-d4	92.8			70.0-130		04/26/2019 19:47	WG1272563
(S) 1,2-Dichloroethane-d4	91.4			70.0-130		05/02/2019 11:20	WG1274830

Sample Narrative:

L1092440-06 WG1272563, WG1274830: Not all compounds reportable at lower dilution.

L1092440-06 WG1272563, WG1274830: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

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	05/02/2019 15:18	WG1275218
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	98.4			78.0-120		05/02/2019 15:18	WG1275218

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	1.58	<u>J JO</u>	1.05	25.0	1	04/26/2019 17:27	WG1272563
Acrylonitrile	U		0.873	5.00	1	04/26/2019 17:27	WG1272563
Benzene	U		0.0896	0.500	1	04/26/2019 17:27	WG1272563
Bromobenzene	U		0.133	0.500	1	04/26/2019 17:27	WG1272563
Bromodichloromethane	U		0.0800	0.500	1	04/26/2019 17:27	WG1272563
Bromoform	U		0.145	0.500	1	04/26/2019 17:27	WG1272563
Bromomethane	U	<u>J0</u>	0.157	2.50	1	04/26/2019 17:27	WG1272563
n-Butylbenzene	U		0.143	0.500	1	04/26/2019 17:27	WG1272563
sec-Butylbenzene	U		0.134	0.500	1	04/26/2019 17:27	WG1272563
tert-Butylbenzene	U		0.183	0.500	1	04/26/2019 17:27	WG1272563
Carbon disulfide	U		0.101	0.500	1	04/26/2019 17:27	WG1272563
Carbon tetrachloride	U		0.159	0.500	1	04/26/2019 17:27	WG1272563
Chlorobenzene	U		0.140	0.500	1	04/26/2019 17:27	WG1272563
Chlorodibromomethane	U		0.128	0.500	1	04/26/2019 17:27	WG1272563
Chloroethane	U	<u>J0</u>	0.141	2.50	1	04/26/2019 17:27	WG1272563
Chloroform	U		0.0860	0.500	1	04/26/2019 17:27	WG1272563
Chloromethane	U		0.153	1.25	1	04/26/2019 17:27	WG1272563
2-Chlorotoluene	U		0.111	0.500	1	04/26/2019 17:27	WG1272563
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2019 17:27	WG1272563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/26/2019 17:27	WG1272563
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2019 17:27	WG1272563
Dibromomethane	U		0.117	0.500	1	04/26/2019 17:27	WG1272563
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2019 17:27	WG1272563
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2019 17:27	WG1272563
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2019 17:27	WG1272563
Dichlorodifluoromethane	U		0.127	2.50	1	04/26/2019 17:27	WG1272563
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2019 17:27	WG1272563
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2019 17:27	WG1272563
1,1-Dichloroethene	U		0.188	0.500	1	04/26/2019 17:27	WG1272563
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/26/2019 17:27	WG1272563
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/26/2019 17:27	WG1272563
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2019 17:27	WG1272563
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2019 17:27	WG1272563
1,3-Dichloropropane	U		0.147	1.00	1	04/26/2019 17:27	WG1272563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2019 17:27	WG1272563
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2019 17:27	WG1272563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2019 17:27	WG1272563
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2019 17:27	WG1272563
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2019 17:27	WG1272563
Ethylbenzene	U		0.158	0.500	1	04/26/2019 17:27	WG1272563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2019 17:27	WG1272563
2-Hexanone	U	<u>J3</u>	0.757	5.00	1	04/26/2019 17:27	WG1272563
n-Hexane	U		0.305	5.00	1	04/26/2019 17:27	WG1272563
Iodomethane	U		0.377	10.0	1	04/26/2019 17:27	WG1272563
Isopropylbenzene	U		0.126	0.500	1	04/26/2019 17:27	WG1272563
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2019 17:27	WG1272563
2-Butanone (MEK)	U		1.28	5.00	1	04/26/2019 17:27	WG1272563



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	04/26/2019 17:27	WG1272563	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 17:27	WG1272563	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 17:27	WG1272563	³ Ss
Naphthalene	U		0.174	2.50	1	04/26/2019 17:27	WG1272563	
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 17:27	WG1272563	
Styrene	U		0.117	0.500	1	04/26/2019 17:27	WG1272563	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 17:27	WG1272563	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 17:27	WG1272563	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 17:27	WG1272563	
Tetrachloroethene	U		0.199	0.500	1	04/26/2019 17:27	WG1272563	
Toluene	U		0.412	0.500	1	04/26/2019 17:27	WG1272563	⁶ Qc
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 17:27	WG1272563	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 17:27	WG1272563	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 17:27	WG1272563	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 17:27	WG1272563	
Trichloroethene	U		0.153	0.500	1	04/26/2019 17:27	WG1272563	
Trichlorofluoromethane	U	¹⁰	0.130	2.50	1	04/26/2019 17:27	WG1272563	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 17:27	WG1272563	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 17:27	WG1272563	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 17:27	WG1272563	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 17:27	WG1272563	
Vinyl acetate	U		0.645	5.00	1	04/26/2019 17:27	WG1272563	
Vinyl chloride	U	¹⁰	0.118	0.500	1	04/26/2019 17:27	WG1272563	
Xylenes, Total	U		0.316	1.50	1	04/26/2019 17:27	WG1272563	
(S) Toluene-d8	97.1			80.0-120		04/26/2019 17:27	WG1272563	
(S) 4-Bromofluorobenzene	101			77.0-126		04/26/2019 17:27	WG1272563	
(S) 1,2-Dichloroethane-d4	90.1			70.0-130		04/26/2019 17:27	WG1272563	



Method Blank (MB)

(MB) R3407366-1 05/02/19 00:50

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Alkalinity	3430	J	2710	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1092404-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1092404-05 05/02/19 00:56 • (DUP) R3407366-2 05/02/19 01:03

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Alkalinity	237000	191000	1	21.6	J3	20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

L1092472-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1092472-01 05/02/19 03:29 • (DUP) R3407366-4 05/02/19 03:35

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Alkalinity	756000	761000	1	0.671		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3407366-3 05/02/19 01:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Alkalinity	100000	103000	103	85.0-115	

Sample Narrative:

LCS: Endpoint pH 4.5



Method Blank (MB)

(MB) R3405528-1 04/25/19 11:04

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1092431-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1092431-02 04/25/19 15:47 • (DUP) R3405528-3 04/25/19 16:04

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Chloride	20400	20500	1	0.120		15
Nitrate	ND	0.000	1	0.000		15
Sulfate	7450	7480	1	0.344		15

⁹Sc

L1092440-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1092440-06 04/25/19 19:39 • (DUP) R3405528-6 04/25/19 19:57

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Chloride	34100	34000	1	0.427		15
Nitrate	U	0.000	1	0.000		15
Sulfate	95000	95200	1	0.256		15

Laboratory Control Sample (LCS)

(LCS) R3405528-2 04/25/19 11:22

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Chloride	40000	40200	100	80.0-120	
Nitrate	8000	8320	104	80.0-120	
Sulfate	40000	40400	101	80.0-120	

L1092440-02,03,04,05,06

L1092431-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1092431-02 04/25/19 15:47 • (MS) R3405528-4 04/25/19 16:22 • (MSD) R3405528-5 04/25/19 16:40

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Chloride	50000	20400	68800	69100	96.7	97.3	1	80.0-120			0.496	15
Nitrate	5000	ND	4770	4810	95.4	96.2	1	80.0-120			0.787	15
Sulfate	50000	7450	56100	56200	97.3	97.5	1	80.0-120			0.214	15

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1092440-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L1092440-06 04/25/19 19:39 • (MS) R3405528-7 04/25/19 20:15

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>
Chloride	50000	34100	79500	90.7	1	80.0-120	
Nitrate	5000	U	4770	95.4	1	80.0-120	
Sulfate	50000	95000	140000	90.5	1	80.0-120	E

WG1272254

Wet Chemistry by Method 9060A

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

[L1092440-02,03,04,05,06](#)

Method Blank (MB)

(MB) R3406229-1 04/26/19 11:55

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	290	J	102	1000

¹Cp

L1092440-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1092440-06 04/26/19 16:35 • (DUP) R3406229-5 04/26/19 16:50

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
TOC (Total Organic Carbon)	39500	38600	1	2.46		20

²Tc³Ss⁴Cn⁵Sr⁶Qc

L1092716-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1092716-10 04/26/19 20:39 • (DUP) R3406229-8 04/26/19 20:54

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
TOC (Total Organic Carbon)	99500	101000	2	1.84		20

⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3406229-2 04/26/19 12:31

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
TOC (Total Organic Carbon)	75000	75900	101	85.0-115	

L1092431-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1092431-15 04/26/19 13:36 • (MS) R3406229-3 04/26/19 13:53 • (MSD) R3406229-4 04/26/19 14:09

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
TOC (Total Organic Carbon)	50000	10200	57900	57500	95.3	94.6	1	80.0-120			0.641	20

L1092716-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1092716-03 04/26/19 17:29 • (MS) R3406229-6 04/26/19 17:46 • (MSD) R3406229-7 04/26/19 19:03

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
TOC (Total Organic Carbon)	50000	ND	48800	48400	96.1	95.4	1	80.0-120			0.720	20

ACCOUNT:

PES Environmental, Inc.- WA

PROJECT:

1413.001.05.601

SDG:

L1092440

DATE/TIME:

05/08/19 14:38

PAGE:

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[L1092440-02,03,04,05,06](#)

Method Blank (MB)

(MB) R3409057-1 05/07/19 20:17

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Iron	87.3	J	15.0	100
Manganese	1.84	J	0.250	5.00

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3409057-2 05/07/19 20:22 • (LCSD) R3409057-3 05/07/19 20:26

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 %
Iron	500	449	441	89.8	88.1	80.0-120			1.93	20
Manganese	50.0	45.5	44.5	91.0	89.1	80.0-120			2.10	20

L1092880-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1092880-01 05/07/19 20:31 • (MS) R3409057-5 05/07/19 20:40 • (MSD) R3409057-6 05/07/19 20:45

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Iron	500	12400	13900	13700	286	251	1	75.0-125	V	V	1.26	20
Manganese	50.0	393	440	449	93.4	111	1	75.0-125			2.01	20

[L1092440-01,02,03,04,05,06](#)

Method Blank (MB)

(MB) R3406246-2 04/25/19 22:30

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	111			78.0-120

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3406246-1 04/25/19 21:42

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Gasoline Range Organics-NWTPH	5500	6260	114	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)		94.6		78.0-120	



Method Blank (MB)

(MB) R3407657-3 05/02/19 14:16

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	98.4			78.0-120

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3407657-1 05/02/19 13:04 • (LCSD) R3407657-2 05/02/19 13:28

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
Gasoline Range Organics-NWTPH	5500	5280	5110	95.9	92.9	70.0-124			3.26	20
(S) a,a,a-Trifluorotoluene(FID)			104	104		78.0-120				

L1094387-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1094387-05 05/02/19 18:28 • (MS) R3407657-4 05/02/19 23:14 • (MSD) R3407657-5 05/02/19 23:38

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	U	5760	5590	105	102	1	10.0-155			2.92	21
(S) a,a,a-Trifluorotoluene(FID)				107	107			78.0-120				

[L1092440-02,03,04,05,06](#)

Method Blank (MB)

(MB) R3407462-1 05/02/19 08:41

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al

L1092426-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1092426-09 05/02/19 09:09 • (DUP) R3407462-2 05/02/19 10:16

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Methane	U	0.000	1	0.000		20
Ethane	U	0.000	1	0.000		20
Ethene	U	0.000	1	0.000		20

⁹Sc

L1092440-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1092440-05 05/02/19 11:12 • (DUP) R3407462-3 05/02/19 11:36

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Methane	1720	1710	1	0.589		20
Ethane	31.2	30.6	1	1.98		20
Ethene	U	0.000	1	0.000		20

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

(LCS) R3407462-4 05/02/19 11:40 • (LCSD) R3407462-5 05/02/19 11:52

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 %
Methane	67.8	77.2	77.1	114	114	85.0-115			0.205	20
Ethane	129	117	120	90.8	92.9	85.0-115			2.32	20
Ethene	127	115	121	90.8	95.2	85.0-115			4.68	20



Method Blank (MB)

(MB) R3407693-1 05/02/19 16:49

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Methane	U		0.287	0.678

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3407693-3 05/02/19 18:03 • (LCSD) R3407693-4 05/02/19 18:08

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 %
Methane	67.8	77.6	73.5	114	108	85.0-115			5.43	20

[L1092440-01,02,03,04,05,06,07](#)

Method Blank (MB)

(MB) R3407258-3 04/26/19 16:26

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	
Acetone	U		1.05	25.0	¹ Cp
Acrylonitrile	U		0.873	5.00	² Tc
Benzene	U		0.0896	0.500	³ Ss
Bromobenzene	U		0.133	0.500	⁴ Cn
Bromochloromethane	U		0.145	0.500	⁵ Sr
Bromodichloromethane	U		0.0800	0.500	⁶ Qc
Bromoform	U		0.186	0.500	⁷ Gl
Bromomethane	U		0.157	2.50	⁸ Al
n-Butylbenzene	U		0.143	0.500	⁹ Sc
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	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	
1,1-Dichloropropene	U		0.128	0.500	
1,3-Dichloropropene	U		0.147	1.00	
cis-1,3-Dichloropropene	U		0.0976	0.500	
trans-1,3-Dichloropropene	U		0.222	0.500	
2,2-Dichloropropane	U		0.0929	0.500	
2-Hexanone	U		0.757	5.00	

ACCOUNT:

PES Environmental, Inc.- WA

PROJECT:

1413.001.05.601

SDG:

L1092440

DATE/TIME:

05/08/19 14:38

PAGE:

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[L1092440-01,02,03,04,05,06,07](#)

Method Blank (MB)

(MB) R3407258-3 04/26/19 16:26

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	
n-Hexane	U		0.305	5.00	¹ Cp
Di-isopropyl ether	U		0.0924	0.500	² Tc
Iodomethane	U		0.377	10.0	³ Ss
Ethylbenzene	U		0.158	0.500	⁴ Cn
Hexachloro-1,3-butadiene	U		0.157	1.00	⁵ Sr
Isopropylbenzene	U		0.126	0.500	⁶ Qc
p-Isopropyltoluene	U		0.138	0.500	⁷ Gl
2-Butanone (MEK)	U		1.28	5.00	⁸ Al
Methylene Chloride	U		1.07	2.50	⁹ Sc
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	
Tetrachloroethene	U		0.199	0.500	
Vinyl acetate	U		0.645	5.00	
Toluene	U		0.412	0.500	
1,1,2-Trichlorotrifluoroethane	U		0.164	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	
1,2,3-Trimethylbenzene	U		0.0739	0.500	
1,2,4-Trimethylbenzene	U		0.123	0.500	
1,3,5-Trimethylbenzene	U		0.124	0.500	
Vinyl chloride	U		0.118	0.500	
Xylenes, Total	U		0.316	1.50	
(S) Toluene-d8	97.5		80.0-120		
(S) 4-Bromofluorobenzene	104		77.0-126		
(S) 1,2-Dichloroethane-d4	91.0		70.0-130		



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

(LCS) R3407258-1 04/26/19 15:27 • (LCSD) R3407258-2 04/26/19 15:46

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 %
Bromochloromethane	25.0	23.5	22.9	94.0	91.7	76.0-122			2.40	20
Acetone	125	165	141	132	113	19.0-160			15.5	27
Acrylonitrile	125	132	149	106	119	55.0-149			11.9	20
Benzene	25.0	25.8	25.0	103	100	70.0-123			3.16	20
Bromobenzene	25.0	22.9	22.3	91.5	89.2	73.0-121			2.57	20
Bromodichloromethane	25.0	22.0	21.4	88.2	85.5	75.0-120			3.06	20
Bromoform	25.0	26.4	26.3	106	105	68.0-132			0.471	20
Bromomethane	25.0	18.6	18.0	74.5	72.2	10.0-160			3.16	25
trans-1,4-Dichloro-2-butene	25.0	21.8	22.1	87.0	88.4	33.0-144			1.54	20
n-Butylbenzene	25.0	22.3	21.4	89.2	85.8	73.0-125			3.98	20
sec-Butylbenzene	25.0	23.0	22.3	92.0	89.2	75.0-125			3.08	20
tert-Butylbenzene	25.0	24.1	23.0	96.4	92.0	76.0-124			4.65	20
Carbon disulfide	25.0	32.0	26.4	128	106	61.0-128			19.2	20
2-Hexanone	125	140	173	112	138	67.0-149	<u>J3</u>		21.1	20
Carbon tetrachloride	25.0	24.4	24.1	97.6	96.4	68.0-126			1.19	20
Chlorobenzene	25.0	23.9	23.3	95.5	93.1	80.0-121			2.56	20
n-Hexane	25.0	29.3	28.0	117	112	57.0-133			4.46	20
Chlorodibromomethane	25.0	23.5	23.3	94.1	93.2	77.0-125			1.02	20
Iodomethane	125	133	128	106	103	33.0-147			3.26	26
Chloroethane	25.0	17.3	16.9	69.2	67.5	47.0-150			2.56	20
Chloroform	25.0	21.7	21.0	86.9	84.0	73.0-120			3.34	20
Chloromethane	25.0	26.6	25.7	106	103	41.0-142			3.39	20
2-Chlortoluene	25.0	22.7	22.0	90.8	88.1	76.0-123			3.09	20
4-Chlortoluene	25.0	23.0	22.3	91.9	89.0	75.0-122			3.22	20
1,2-Dibromo-3-Chloropropane	25.0	26.2	26.7	105	107	58.0-134			1.93	20
1,2-Dibromoethane	25.0	23.3	23.7	93.3	94.7	80.0-122			1.49	20
Dibromomethane	25.0	22.2	21.7	88.7	86.8	80.0-120			2.12	20
1,2-Dichlorobenzene	25.0	23.3	22.8	93.3	91.2	79.0-121			2.30	20
1,3-Dichlorobenzene	25.0	23.1	22.5	92.4	90.2	79.0-120			2.42	20
1,4-Dichlorobenzene	25.0	22.1	21.7	88.4	86.9	79.0-120			1.77	20
Dichlorodifluoromethane	25.0	31.5	29.2	126	117	51.0-149			7.67	20
1,1-Dichloroethane	25.0	24.1	23.3	96.5	93.3	70.0-126			3.42	20
1,2-Dichloroethane	25.0	20.2	19.8	81.0	79.2	70.0-128			2.20	20
1,1-Dichloroethene	25.0	26.8	23.7	107	94.7	71.0-124			12.5	20
cis-1,2-Dichloroethene	25.0	23.8	23.2	95.2	92.9	73.0-120			2.49	20
trans-1,2-Dichloroethene	25.0	26.3	23.9	105	95.7	73.0-120			9.45	20
1,2-Dichloropropane	25.0	25.6	25.5	102	102	77.0-125			0.479	20
1,1-Dichloropropene	25.0	25.0	23.7	100	94.7	74.0-126			5.45	20
1,3-Dichloropropane	25.0	24.0	23.9	96.1	95.7	80.0-120			0.492	20
cis-1,3-Dichloropropene	25.0	23.8	23.3	95.1	93.2	80.0-123			2.03	20

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



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

(LCS) R3407258-1 04/26/19 15:27 • (LCSD) R3407258-2 04/26/19 15:46

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 %
Vinyl acetate	125	116	114	92.8	91.1	11.0-160			1.90	20
trans-1,3-Dichloropropene	25.0	23.1	22.2	92.6	89.0	78.0-124			3.97	20
2,2-Dichloropropane	25.0	32.0	30.3	128	121	58.0-130			5.52	20
Di-isopropyl ether	25.0	27.0	26.7	108	107	58.0-138			1.11	20
Ethylbenzene	25.0	24.7	24.1	98.9	96.2	79.0-123			2.77	20
Hexachloro-1,3-butadiene	25.0	28.3	28.9	113	116	54.0-138			2.00	20
Isopropylbenzene	25.0	25.5	24.8	102	99.3	76.0-127			2.77	20
p-Isopropyltoluene	25.0	23.4	22.6	93.4	90.4	76.0-125			3.26	20
2-Butanone (MEK)	125	144	150	116	120	44.0-160			3.60	20
Methylene Chloride	25.0	27.2	23.8	109	95.3	67.0-120			13.4	20
4-Methyl-2-pentanone (MIBK)	125	135	139	108	111	68.0-142			2.35	20
Methyl tert-butyl ether	25.0	22.9	22.8	91.4	91.3	68.0-125			0.127	20
Naphthalene	25.0	23.5	24.1	94.2	96.6	54.0-135			2.50	20
n-Propylbenzene	25.0	22.5	21.7	90.0	86.8	77.0-124			3.58	20
Styrene	25.0	26.9	26.7	108	107	73.0-130			0.962	20
1,1,2-Tetrachloroethane	25.0	23.5	23.2	94.0	92.7	75.0-125			1.47	20
1,1,2,2-Tetrachloroethane	25.0	22.1	21.6	88.4	86.4	65.0-130			2.38	20
Tetrachloroethene	25.0	26.3	25.2	105	101	72.0-132			4.03	20
Toluene	25.0	25.9	25.3	103	101	79.0-120			2.21	20
1,1,2-Trichlorotrifluoroethane	25.0	25.7	22.6	103	90.4	69.0-132			12.7	20
1,2,3-Trichlorobenzene	25.0	22.8	24.0	91.2	95.9	50.0-138			5.02	20
1,2,4-Trichlorobenzene	25.0	24.8	24.8	99.0	99.2	57.0-137			0.213	20
1,1,1-Trichloroethane	25.0	24.3	22.7	97.4	90.9	73.0-124			6.84	20
1,1,2-Trichloroethane	25.0	22.5	22.2	90.1	88.8	80.0-120			1.49	20
Trichloroethene	25.0	25.6	24.4	102	97.5	78.0-124			4.75	20
Trichlorofluoromethane	25.0	17.0	16.2	68.0	64.9	59.0-147			4.64	20
1,2,3-Trichloropropane	25.0	20.7	19.8	83.0	79.3	73.0-130			4.50	20
1,2,3-Trimethylbenzene	25.0	21.4	21.2	85.6	84.7	77.0-120			1.01	20
1,2,4-Trimethylbenzene	25.0	22.2	21.6	89.0	86.3	76.0-121			3.10	20
1,3,5-Trimethylbenzene	25.0	22.8	21.9	91.1	87.7	76.0-122			3.74	20
Vinyl chloride	25.0	19.3	18.1	77.2	72.4	67.0-131			6.36	20
Xylenes, Total	75.0	74.0	73.0	98.7	97.3	79.0-123			1.36	20
(S) Toluene-d8				102	101	80.0-120				
(S) 4-Bromofluorobenzene				107	107	77.0-126				
(S) 1,2-Dichloroethane-d4				90.3	89.6	70.0-130				

[L1092440-03,04,05,06](#)

Method Blank (MB)

(MB) R3407476-3 05/02/19 07:53

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
cis-1,2-Dichloroethene	U		0.0933	0.500
Tetrachloroethene	U		0.199	0.500
Trichloroethene	U		0.153	0.500
Vinyl chloride	U		0.118	0.500
(S) Toluene-d8	109		80.0-120	
(S) 4-Bromofluorobenzene	97.2		77.0-126	
(S) 1,2-Dichloroethane-d4	88.6		70.0-130	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3407476-1 05/02/19 06:54 • (LCSD) R3407476-2 05/02/19 07:14

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
cis-1,2-Dichloroethene	25.0	24.3	23.5	97.3	93.9	73.0-120			3.57	20
Tetrachloroethene	25.0	26.6	26.0	106	104	72.0-132			2.19	20
Trichloroethene	25.0	27.1	27.5	109	110	78.0-124			1.41	20
Vinyl chloride	25.0	23.7	22.9	94.8	91.7	67.0-131			3.35	20
(S) Toluene-d8			107	106	80.0-120					
(S) 4-Bromofluorobenzene			97.4	98.2	77.0-126					
(S) 1,2-Dichloroethane-d4			96.2	97.5	70.0-130					



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.	¹ Cp
ND	Not detected at the Reporting Limit (or MDL where applicable).	² Tc
RDL	Reported Detection Limit.	³ Ss
Rec.	Recovery.	⁴ Cn
RPD	Relative Percent Difference.	⁵ Sr
SDG	Sample Delivery Group.	⁶ Qc
(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.	⁷ GI
U	Not detected at the Reporting Limit (or MDL where applicable).	⁸ AI
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	⁹ SC
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.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
JO	JO: The identification of the analyte is acceptable, but the reported concentration is an estimate. The calibration met method criteria.
J3	The associated batch QC was outside the established quality control range for precision.
V	The sample concentration is too high to evaluate accurate spike recoveries.



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
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia ¹	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky ^{1,6}	90010
Kentucky ²	16
Louisiana	AI30792
Louisiana ¹	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LA000356
South Carolina	84004
South Dakota	n/a
Tennessee ^{1,4}	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

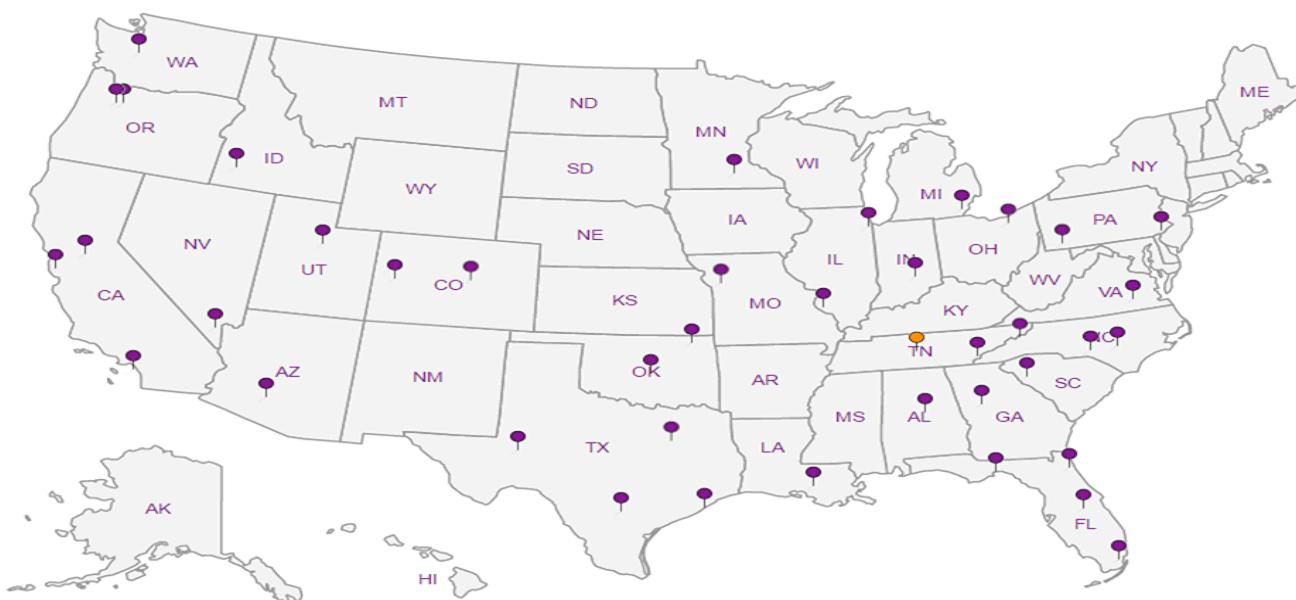
A2LA – ISO 17025	1461.01
A2LA – ISO 17025 ⁵	1461.02
Canada	1461.01
EPA-Crypto	TN00003

AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

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.



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

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:

Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161Report to:
Brian O'Neal/Bill HaldemanProject
Description: American LinenPhone: 206-529-3980
Fax: 206-529-3985Client Project #
1413 001.05.601

Collected by (print):

Ben Hecht

Collected by (signature):

Immediately
Packed on Ice N Y ✓

Sample ID

Site/Facility ID #

Comp/Grab

American Linen

Matrix *

Depth

P.O. #

Date

Quote #

Time

No. of
Cntrs

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

* NO3, SO4, Cl * 125mlHDPE-NoPres

Alkalinity 125mlHDPE-NoPres

EEM (RSK175LL) 40mlAmb-HCl

TOC 250mlAmb-HCl

Total Fe Mn 6020 250mlHDPE-HNO3

VOC 8020 8260

Crk (NWTRX) Crx

Remarks

Sample # (lab only)

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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	04/26/2019 04:05	WG1272107
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	111			78.0-120		04/26/2019 04:05	WG1272107

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Acetone	6.93	U	<u>JJ0</u>	1.05	25.0	1	04/26/2019 18:07	WG1272563
Acrylonitrile	U		0.873	5.00	1	04/26/2019 18:07	WG1272563	
Benzene	U		0.0896	0.500	1	04/26/2019 18:07	WG1272563	
Bromobenzene	U		0.133	0.500	1	04/26/2019 18:07	WG1272563	
Bromodichloromethane	U		0.0800	0.500	1	04/26/2019 18:07	WG1272563	
Bromoform	U		0.145	0.500	1	04/26/2019 18:07	WG1272563	
Bromomethane	U	UJ	<u>J0</u>	0.157	2.50	1	04/26/2019 18:07	WG1272563
n-Butylbenzene	U		0.143	0.500	1	04/26/2019 18:07	WG1272563	
sec-Butylbenzene	U		0.134	0.500	1	04/26/2019 18:07	WG1272563	
tert-Butylbenzene	U		0.183	0.500	1	04/26/2019 18:07	WG1272563	
Carbon disulfide	U		0.101	0.500	1	04/26/2019 18:07	WG1272563	
Carbon tetrachloride	U		0.159	0.500	1	04/26/2019 18:07	WG1272563	
Chlorobenzene	U		0.140	0.500	1	04/26/2019 18:07	WG1272563	
Chlorodibromomethane	U		0.128	0.500	1	04/26/2019 18:07	WG1272563	
Chloroethane	U	UJ	<u>J0</u>	0.141	2.50	1	04/26/2019 18:07	WG1272563
Chloroform	U		0.0860	0.500	1	04/26/2019 18:07	WG1272563	
Chloromethane	U		0.153	1.25	1	04/26/2019 18:07	WG1272563	
2-Chlorotoluene	U		0.111	0.500	1	04/26/2019 18:07	WG1272563	
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2019 18:07	WG1272563	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/26/2019 18:07	WG1272563	
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2019 18:07	WG1272563	
Dibromomethane	U		0.117	0.500	1	04/26/2019 18:07	WG1272563	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2019 18:07	WG1272563	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2019 18:07	WG1272563	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2019 18:07	WG1272563	
Dichlorodifluoromethane	U		0.127	2.50	1	04/26/2019 18:07	WG1272563	
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2019 18:07	WG1272563	
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2019 18:07	WG1272563	
1,1-Dichloroethene	U		0.188	0.500	1	04/26/2019 18:07	WG1272563	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/26/2019 18:07	WG1272563	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/26/2019 18:07	WG1272563	
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2019 18:07	WG1272563	
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2019 18:07	WG1272563	
1,3-Dichloropropane	U		0.147	1.00	1	04/26/2019 18:07	WG1272563	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2019 18:07	WG1272563	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2019 18:07	WG1272563	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2019 18:07	WG1272563	
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2019 18:07	WG1272563	
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2019 18:07	WG1272563	
Ethylbenzene	U		0.158	0.500	1	04/26/2019 18:07	WG1272563	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2019 18:07	WG1272563	
2-Hexanone	U	<u>JS</u>	0.757	5.00	1	04/26/2019 18:07	WG1272563	
n-Hexane	U		0.305	5.00	1	04/26/2019 18:07	WG1272563	
Iodomethane	U		0.377	10.0	1	04/26/2019 18:07	WG1272563	
Isopropylbenzene	U		0.126	0.500	1	04/26/2019 18:07	WG1272563	
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2019 18:07	WG1272563	
2-Butanone (MEK)	U		1.28	5.00	1	04/26/2019 18:07	WG1272563	

JC 5/13/19



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch		
Methylene Chloride	U		1.07	2.50	1	04/26/2019 18:07	WG1272563	¹ Cp	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 18:07	WG1272563	² Tc	
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 18:07	WG1272563	³ Ss	
Naphthalene	U		0.174	2.50	1	04/26/2019 18:07	WG1272563		
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 18:07	WG1272563		
Styrene	U		0.117	0.500	1	04/26/2019 18:07	WG1272563		
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 18:07	WG1272563		
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 18:07	WG1272563		
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 18:07	WG1272563		
Tetrachloroethene	U		0.199	0.500	1	04/26/2019 18:07	WG1272563		
Toluene	U		0.412	0.500	1	04/26/2019 18:07	WG1272563	⁶ Qc	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 18:07	WG1272563		
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 18:07	WG1272563		
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 18:07	WG1272563	⁷ GI	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 18:07	WG1272563		
Trichloroethene	U		0.153	0.500	1	04/26/2019 18:07	WG1272563		
Trichlorofluoromethane	U	UJ	JO	0.130	2.50	1	04/26/2019 18:07	WG1272563	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 18:07	WG1272563		
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 18:07	WG1272563		
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 18:07	WG1272563		
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 18:07	WG1272563		
Vinyl acetate	U		0.645	5.00	1	04/26/2019 18:07	WG1272563		
Vinyl chloride	U	UJ	JO	0.118	0.500	1	04/26/2019 18:07	WG1272563	
Xylenes, Total	U		0.316	1.50	1	04/26/2019 18:07	WG1272563		
(S) Toluene-d8	96.5			80.0-120		04/26/2019 18:07	WG1272563		
(S) 4-Bromofluorobenzene	106			77.0-126		04/26/2019 18:07	WG1272563		
(S) 1,2-Dichloroethane-d4	92.7			70.0-130		04/26/2019 18:07	WG1272563	⁸ AI	
								⁹ SC	

JC 5/13/19



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	393000		2710	20000	1	05/02/2019 02:46	WG1273787

Sample Narrative:

L1092440-02 WG1273787: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	56200		51.9	1000	1	04/25/2019 17:52	WG1271815
Nitrate	U		22.7	100	1	04/25/2019 17:52	WG1271815
Sulfate	8530		77.4	5000	1	04/25/2019 17:52	WG1271815

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	7190		102	1000	1	04/26/2019 14:22	WG1272254

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	687	B	15.0	100	1	05/07/2019 21:51	WG1271844
Manganese	317		0.250	5.00	1	05/07/2019 21:51	WG1271844

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/26/2019 04:29	WG1272107
(S) a,a,a-Trifluorotoluene(FID)	111			78.0-120		04/26/2019 04:29	WG1272107

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	6940		5.74	13.6	20	05/02/2019 17:40	WG1275114
Ethane	125		0.296	1.29	1	05/02/2019 10:54	WG1274563
Ethene	U		0.422	1.27	1	05/02/2019 10:54	WG1274563

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
Acetone	2.44	U	<u>J JO</u>	1.05	25.0	1	04/26/2019 18:27	WG1272563
Acrylonitrile	U			0.873	5.00	1	04/26/2019 18:27	WG1272563
Benzene	U			0.0896	0.500	1	04/26/2019 18:27	WG1272563
Bromobenzene	U			0.133	0.500	1	04/26/2019 18:27	WG1272563
Bromodichloromethane	U			0.0800	0.500	1	04/26/2019 18:27	WG1272563
Bromochloromethane	U			0.145	0.500	1	04/26/2019 18:27	WG1272563
Bromoform	U			0.186	0.500	1	04/26/2019 18:27	WG1272563
Bromomethane	U	UJ	<u>J O</u>	0.157	2.50	1	04/26/2019 18:27	WG1272563
n-Butylbenzene	U			0.143	0.500	1	04/26/2019 18:27	WG1272563
sec-Butylbenzene	U			0.134	0.500	1	04/26/2019 18:27	WG1272563
tert-Butylbenzene	U			0.183	0.500	1	04/26/2019 18:27	WG1272563
Carbon disulfide	0.308	J	<u>J JO</u>	0.101	0.500	1	04/26/2019 18:27	WG1272563
Carbon tetrachloride	U			0.159	0.500	1	04/26/2019 18:27	WG1272563

JC 5/13/19



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	04/26/2019 18:27	WG1272563	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/26/2019 18:27	WG1272563	² Tc
Chloroethane	U	UJ JO	0.141	2.50	1	04/26/2019 18:27	WG1272563	³ Ss
Chloroform	U		0.0860	0.500	1	04/26/2019 18:27	WG1272563	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/26/2019 18:27	WG1272563	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/26/2019 18:27	WG1272563	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2019 18:27	WG1272563	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/26/2019 18:27	WG1272563	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2019 18:27	WG1272563	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/26/2019 18:27	WG1272563	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2019 18:27	WG1272563	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2019 18:27	WG1272563	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2019 18:27	WG1272563	
Dichlorodifluoromethane	U		0.127	2.50	1	04/26/2019 18:27	WG1272563	
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2019 18:27	WG1272563	
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2019 18:27	WG1272563	
1,1-Dichloroethene	U		0.188	0.500	1	04/26/2019 18:27	WG1272563	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/26/2019 18:27	WG1272563	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/26/2019 18:27	WG1272563	
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2019 18:27	WG1272563	
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2019 18:27	WG1272563	
1,3-Dichloropropane	U		0.147	1.00	1	04/26/2019 18:27	WG1272563	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2019 18:27	WG1272563	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2019 18:27	WG1272563	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2019 18:27	WG1272563	
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2019 18:27	WG1272563	
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2019 18:27	WG1272563	
Ethylbenzene	U		0.158	0.500	1	04/26/2019 18:27	WG1272563	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2019 18:27	WG1272563	
2-Hexanone	U	J3	0.757	5.00	1	04/26/2019 18:27	WG1272563	
n-Hexane	U		0.305	5.00	1	04/26/2019 18:27	WG1272563	
Iodomethane	U		0.377	10.0	1	04/26/2019 18:27	WG1272563	
Isopropylbenzene	U		0.126	0.500	1	04/26/2019 18:27	WG1272563	
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2019 18:27	WG1272563	
2-Butanone (MEK)	U		1.28	5.00	1	04/26/2019 18:27	WG1272563	
Methylene Chloride	U		1.07	2.50	1	04/26/2019 18:27	WG1272563	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 18:27	WG1272563	
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 18:27	WG1272563	
Naphthalene	U		0.174	2.50	1	04/26/2019 18:27	WG1272563	
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 18:27	WG1272563	
Styrene	U		0.117	0.500	1	04/26/2019 18:27	WG1272563	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 18:27	WG1272563	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 18:27	WG1272563	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 18:27	WG1272563	
Tetrachloroethene	U		0.199	0.500	1	04/26/2019 18:27	WG1272563	
Toluene	U		0.412	0.500	1	04/26/2019 18:27	WG1272563	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 18:27	WG1272563	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 18:27	WG1272563	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 18:27	WG1272563	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 18:27	WG1272563	
Trichloroethene	U		0.153	0.500	1	04/26/2019 18:27	WG1272563	
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	04/26/2019 18:27	WG1272563	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 18:27	WG1272563	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 18:27	WG1272563	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 18:27	WG1272563	JC 5/13/19
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 18:27	WG1272563	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Vinyl acetate	U		0.645	5.00	1	04/26/2019 18:27	WG1272563	¹ Cp
Vinyl chloride	U	UJ	0.118	0.500	1	04/26/2019 18:27	WG1272563	² Tc
Xylenes, Total	U		0.316	1.50	1	04/26/2019 18:27	WG1272563	³ Ss
(S) Toluene-d8	101			80.0-120		04/26/2019 18:27	WG1272563	⁴ Cn
(S) 4-Bromofluorobenzene	107			77.0-126		04/26/2019 18:27	WG1272563	⁵ Sr
(S) 1,2-Dichloroethane-d4	92.2			70.0-130		04/26/2019 18:27	WG1272563	⁶ Qc
								⁷ Gl
								⁸ Al
								⁹ Sc

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Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity	612000		2710	20000	1	05/02/2019 02:54	WG1273787

Sample Narrative:

L1092440-03 WG1273787: Endpoint pH 4.5 headspace

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	19300		51.9	1000	1	04/25/2019 18:10	WG1271815
Nitrate	259		22.7	100	1	04/25/2019 18:10	WG1271815
Sulfate	145000		387	25000	5	04/26/2019 01:16	WG1271815

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	56000		102	1000	1	04/26/2019 15:44	WG1272254

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Iron	4760		15.0	100	1	05/07/2019 21:56	WG1271844
Manganese	9750		0.250	5.00	1	05/07/2019 21:56	WG1271844

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	2600		31.6	100	1	04/26/2019 04:53	WG1272107
(S) a,a,a-Trifluorotoluene(FID)	112			78.0-120		04/26/2019 04:53	WG1272107

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methane	1590		0.287	0.678	1	05/02/2019 10:59	WG1274563
Ethane	28.4		0.296	1.29	1	05/02/2019 10:59	WG1274563
Ethene	U		0.422	1.27	1	05/02/2019 10:59	WG1274563

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	2.50	U	J JO	1.05	25.0	1	04/26/2019 18:47	WG1272563
Acrylonitrile	U			0.873	5.00	1	04/26/2019 18:47	WG1272563
Benzene	0.330	J	J	0.0896	0.500	1	04/26/2019 18:47	WG1272563
Bromobenzene	U			0.133	0.500	1	04/26/2019 18:47	WG1272563
Bromodichloromethane	U			0.0800	0.500	1	04/26/2019 18:47	WG1272563
Bromochloromethane	U			0.145	0.500	1	04/26/2019 18:47	WG1272563
Bromoform	U			0.186	0.500	1	04/26/2019 18:47	WG1272563
Bromomethane	U	UJ	JO	0.157	2.50	1	04/26/2019 18:47	WG1272563
n-Butylbenzene	U			0.143	0.500	1	04/26/2019 18:47	WG1272563
sec-Butylbenzene	U			0.134	0.500	1	04/26/2019 18:47	WG1272563
tert-Butylbenzene	U			0.183	0.500	1	04/26/2019 18:47	WG1272563
Carbon disulfide	U			0.101	0.500	1	04/26/2019 18:47	WG1272563
Carbon tetrachloride	U			0.159	0.500	1	04/26/2019 18:47	WG1272563

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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
Chlorobenzene	U		0.140	0.500	1	04/26/2019 18:47	WG1272563
Chlorodibromomethane	U		0.128	0.500	1	04/26/2019 18:47	WG1272563
Chloroethane	U	UJ JO	0.141	2.50	1	04/26/2019 18:47	WG1272563
Chloroform	U		0.0860	0.500	1	04/26/2019 18:47	WG1272563
Chloromethane	U		0.153	1.25	1	04/26/2019 18:47	WG1272563
2-Chlorotoluene	U		0.111	0.500	1	04/26/2019 18:47	WG1272563
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2019 18:47	WG1272563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/26/2019 18:47	WG1272563
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2019 18:47	WG1272563
Dibromomethane	U		0.117	0.500	1	04/26/2019 18:47	WG1272563
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2019 18:47	WG1272563
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2019 18:47	WG1272563
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2019 18:47	WG1272563
Dichlorodifluoromethane	U		0.127	2.50	1	04/26/2019 18:47	WG1272563
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2019 18:47	WG1272563
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2019 18:47	WG1272563
1,1-Dichloroethene	11.8		0.188	0.500	1	04/26/2019 18:47	WG1272563
cis-1,2-Dichloroethene	1760		4.66	25.0	50	05/02/2019 10:41	WG1274830
trans-1,2-Dichloroethene	9.31		0.152	0.500	1	04/26/2019 18:47	WG1272563
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2019 18:47	WG1272563
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2019 18:47	WG1272563
1,3-Dichloropropane	U		0.147	1.00	1	04/26/2019 18:47	WG1272563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2019 18:47	WG1272563
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2019 18:47	WG1272563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2019 18:47	WG1272563
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2019 18:47	WG1272563
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2019 18:47	WG1272563
Ethylbenzene	U		0.158	0.500	1	04/26/2019 18:47	WG1272563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2019 18:47	WG1272563
2-Hexanone	U	—J3—	0.757	5.00	1	04/26/2019 18:47	WG1272563
n-Hexane	U		0.305	5.00	1	04/26/2019 18:47	WG1272563
Iodomethane	U		0.377	10.0	1	04/26/2019 18:47	WG1272563
Isopropylbenzene	U		0.126	0.500	1	04/26/2019 18:47	WG1272563
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2019 18:47	WG1272563
2-Butanone (MEK)	U		1.28	5.00	1	04/26/2019 18:47	WG1272563
Methylene Chloride	U		1.07	2.50	1	04/26/2019 18:47	WG1272563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 18:47	WG1272563
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 18:47	WG1272563
Naphthalene	U		0.174	2.50	1	04/26/2019 18:47	WG1272563
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 18:47	WG1272563
Styrene	U		0.117	0.500	1	04/26/2019 18:47	WG1272563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 18:47	WG1272563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 18:47	WG1272563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 18:47	WG1272563
Tetrachloroethene	1440		9.95	25.0	50	05/02/2019 10:41	WG1274830
Toluene	U		0.412	0.500	1	04/26/2019 18:47	WG1272563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 18:47	WG1272563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 18:47	WG1272563
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 18:47	WG1272563
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 18:47	WG1272563
Trichloroethene	717		7.65	25.0	50	05/02/2019 10:41	WG1274830
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	04/26/2019 18:47	WG1272563
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 18:47	WG1272563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 18:47	WG1272563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 18:47	WG1272563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 18:47	WG1272563

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1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

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
Vinyl acetate	U		0.645	5.00	1	04/26/2019 18:47	WG1272563
Vinyl chloride	3.34	J	0.118	0.500	1	04/26/2019 18:47	WG1272563
Xylenes, Total	U		0.316	1.50	1	04/26/2019 18:47	WG1272563
(S) Toluene-d8	100			80.0-120		04/26/2019 18:47	WG1272563
(S) Toluene-d8	108			80.0-120		05/02/2019 10:41	WG1274830
(S) 4-Bromofluorobenzene	107			77.0-126		04/26/2019 18:47	WG1272563
(S) 4-Bromofluorobenzene	100			77.0-126		05/02/2019 10:41	WG1274830
(S) 1,2-Dichloroethane-d4	90.2			70.0-130		04/26/2019 18:47	WG1272563
(S) 1,2-Dichloroethane-d4	90.2			70.0-130		05/02/2019 10:41	WG1274830

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

JC 5/13/19



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	798000		2710	20000	1	05/02/2019 03:00	WG1273787

Sample Narrative:

L1092440-04 WG1273787: Endpoint pH 4.5 headspace

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	9760		51.9	1000	1	04/25/2019 18:28	WG1271815
Nitrate	U		22.7	100	1	04/25/2019 18:28	WG1271815
Sulfate	27300		77.4	5000	1	04/25/2019 18:28	WG1271815

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	31700		102	1000	1	04/26/2019 16:00	WG1272254

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	3500		15.0	100	1	05/07/2019 22:01	WG1271844
Manganese	1990		0.250	5.00	1	05/07/2019 22:01	WG1271844

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/26/2019 05:17	WG1272107
(S) a,a,a-Trifluorotoluene(FID)	111			78.0-120		04/26/2019 05:17	WG1272107

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	3560		0.287	0.678	1	05/02/2019 11:08	WG1274563
Ethane	19.2		0.296	1.29	1	05/02/2019 11:08	WG1274563
Ethene	U		0.422	1.27	1	05/02/2019 11:08	WG1274563

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
Acetone	2.52	U	J JO	1.05	25.0	1	04/26/2019 19:07	WG1272563
Acrylonitrile	U			0.873	5.00	1	04/26/2019 19:07	WG1272563
Benzene	0.361	J	J	0.0896	0.500	1	04/26/2019 19:07	WG1272563
Bromobenzene	U			0.133	0.500	1	04/26/2019 19:07	WG1272563
Bromodichloromethane	U			0.0800	0.500	1	04/26/2019 19:07	WG1272563
Bromochloromethane	U			0.145	0.500	1	04/26/2019 19:07	WG1272563
Bromoform	U			0.186	0.500	1	04/26/2019 19:07	WG1272563
Bromomethane	U	UJ	JO	0.157	2.50	1	04/26/2019 19:07	WG1272563
n-Butylbenzene	U			0.143	0.500	1	04/26/2019 19:07	WG1272563
sec-Butylbenzene	U			0.134	0.500	1	04/26/2019 19:07	WG1272563
tert-Butylbenzene	U			0.183	0.500	1	04/26/2019 19:07	WG1272563
Carbon disulfide	U			0.101	0.500	1	04/26/2019 19:07	WG1272563
Carbon tetrachloride	U			0.159	0.500	1	04/26/2019 19:07	WG1272563



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	04/26/2019 19:07	WG1272563
Chlorodibromomethane	U		0.128	0.500	1	04/26/2019 19:07	WG1272563
Chloroethane	U	UJ JO	0.141	2.50	1	04/26/2019 19:07	WG1272563
Chloroform	U		0.0860	0.500	1	04/26/2019 19:07	WG1272563
Chloromethane	U		0.153	1.25	1	04/26/2019 19:07	WG1272563
2-Chlorotoluene	U		0.111	0.500	1	04/26/2019 19:07	WG1272563
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2019 19:07	WG1272563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/26/2019 19:07	WG1272563
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2019 19:07	WG1272563
Dibromomethane	U		0.117	0.500	1	04/26/2019 19:07	WG1272563
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2019 19:07	WG1272563
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2019 19:07	WG1272563
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2019 19:07	WG1272563
Dichlorodifluoromethane	U		0.127	2.50	1	04/26/2019 19:07	WG1272563
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2019 19:07	WG1272563
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2019 19:07	WG1272563
1,1-Dichloroethene	U		0.188	0.500	1	04/26/2019 19:07	WG1272563
cis-1,2-Dichloroethene	5.67		0.0933	0.500	1	05/02/2019 10:21	WG1274830
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/26/2019 19:07	WG1272563
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2019 19:07	WG1272563
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2019 19:07	WG1272563
1,3-Dichloropropane	U		0.147	1.00	1	04/26/2019 19:07	WG1272563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2019 19:07	WG1272563
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2019 19:07	WG1272563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2019 19:07	WG1272563
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2019 19:07	WG1272563
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2019 19:07	WG1272563
Ethylbenzene	U		0.158	0.500	1	04/26/2019 19:07	WG1272563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2019 19:07	WG1272563
2-Hexanone	U	33	0.757	5.00	1	04/26/2019 19:07	WG1272563
n-Hexane	U		0.305	5.00	1	04/26/2019 19:07	WG1272563
Iodomethane	U		0.377	10.0	1	04/26/2019 19:07	WG1272563
Isopropylbenzene	U		0.126	0.500	1	04/26/2019 19:07	WG1272563
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2019 19:07	WG1272563
2-Butanone (MEK)	U		1.28	5.00	1	04/26/2019 19:07	WG1272563
Methylene Chloride	U		1.07	2.50	1	04/26/2019 19:07	WG1272563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 19:07	WG1272563
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 19:07	WG1272563
Naphthalene	U		0.174	2.50	1	04/26/2019 19:07	WG1272563
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 19:07	WG1272563
Styrene	U		0.117	0.500	1	04/26/2019 19:07	WG1272563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 19:07	WG1272563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 19:07	WG1272563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 19:07	WG1272563
Tetrachloroethene	U		0.199	0.500	1	05/02/2019 10:21	WG1274830
Toluene	U		0.412	0.500	1	04/26/2019 19:07	WG1272563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 19:07	WG1272563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 19:07	WG1272563
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 19:07	WG1272563
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 19:07	WG1272563
Trichloroethene	0.156	J J	0.153	0.500	1	05/02/2019 10:21	WG1274830
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	04/26/2019 19:07	WG1272563
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 19:07	WG1272563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 19:07	WG1272563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 19:07	WG1272563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 19:07	WG1272563

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

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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		
Vinyl acetate	U		0.645	5.00	1	04/26/2019 19:07	WG1272563	¹ Cp	
Vinyl chloride	4.39	J	<u>JO</u>	0.118	0.500	1	04/26/2019 19:07	WG1272563	² Tc
Xylenes, Total	U		0.316	1.50	1	04/26/2019 19:07	WG1272563	³ Ss	
(S) Toluene-d8	100			80.0-120		04/26/2019 19:07	WG1272563	⁴ Cn	
(S) Toluene-d8	107			80.0-120		05/02/2019 10:21	WG1274830	⁵ Sr	
(S) 4-Bromofluorobenzene	107			77.0-126		04/26/2019 19:07	WG1272563	⁶ Qc	
(S) 4-Bromofluorobenzene	97.3			77.0-126		05/02/2019 10:21	WG1274830	⁷ GI	
(S) 1,2-Dichloroethane-d4	92.9			70.0-130		04/26/2019 19:07	WG1272563	⁸ AI	
(S) 1,2-Dichloroethane-d4	89.2			70.0-130		05/02/2019 10:21	WG1274830	⁹ SC	

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Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	618000		2710	20000	1	05/02/2019 03:08	WG1273787

Sample Narrative:

L1092440-05 WG1273787: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	18600		51.9	1000	1	04/25/2019 19:21	WG1271815
Nitrate	U		22.7	100	1	04/25/2019 19:21	WG1271815
Sulfate	145000		387	25000	5	04/26/2019 01:34	WG1271815

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	57300		102	1000	1	04/26/2019 16:20	WG1272254

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	3810		15.0	100	1	05/07/2019 22:05	WG1271844
Manganese	9010		0.250	5.00	1	05/07/2019 22:05	WG1271844

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	2570		31.6	100	1	04/26/2019 05:41	WG1272107
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	112			78.0-120		04/26/2019 05:41	WG1272107

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	1720		0.287	0.678	1	05/02/2019 11:12	WG1274563
Ethane	31.2		0.296	1.29	1	05/02/2019 11:12	WG1274563
Ethene	U		0.422	1.27	1	05/02/2019 11:12	WG1274563

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
Acetone	2.00	U	J JO	1.05	25.0	1	04/26/2019 19:27	WG1272563
Acrylonitrile	U			0.873	5.00	1	04/26/2019 19:27	WG1272563
Benzene	0.339	J	J	0.0896	0.500	1	04/26/2019 19:27	WG1272563
Bromobenzene	U			0.133	0.500	1	04/26/2019 19:27	WG1272563
Bromodichloromethane	U			0.0800	0.500	1	04/26/2019 19:27	WG1272563
Bromoform	U			0.145	0.500	1	04/26/2019 19:27	WG1272563
Bromomethane	U	UJ	JO	0.157	2.50	1	04/26/2019 19:27	WG1272563
n-Butylbenzene	U			0.143	0.500	1	04/26/2019 19:27	WG1272563
sec-Butylbenzene	U			0.134	0.500	1	04/26/2019 19:27	WG1272563
tert-Butylbenzene	U			0.183	0.500	1	04/26/2019 19:27	WG1272563
Carbon disulfide	U			0.101	0.500	1	04/26/2019 19:27	WG1272563
Carbon tetrachloride	U			0.159	0.500	1	04/26/2019 19:27	WG1272563

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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	
Chlorobenzene	U		0.140	0.500	1	04/26/2019 19:27	WG1272563	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/26/2019 19:27	WG1272563	² Tc
Chloroethane	U	UJ JO	0.141	2.50	1	04/26/2019 19:27	WG1272563	³ Ss
Chloroform	U		0.0860	0.500	1	04/26/2019 19:27	WG1272563	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/26/2019 19:27	WG1272563	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/26/2019 19:27	WG1272563	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2019 19:27	WG1272563	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/26/2019 19:27	WG1272563	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2019 19:27	WG1272563	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/26/2019 19:27	WG1272563	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2019 19:27	WG1272563	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2019 19:27	WG1272563	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2019 19:27	WG1272563	
Dichlorodifluoromethane	U		0.127	2.50	1	04/26/2019 19:27	WG1272563	
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2019 19:27	WG1272563	
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2019 19:27	WG1272563	
1,1-Dichloroethene	12.3		0.188	0.500	1	04/26/2019 19:27	WG1272563	
cis-1,2-Dichloroethene	1770		4.66	25.0	50	05/02/2019 11:00	WG1274830	
trans-1,2-Dichloroethene	9.41		0.152	0.500	1	04/26/2019 19:27	WG1272563	
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2019 19:27	WG1272563	
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2019 19:27	WG1272563	
1,3-Dichloropropane	U		0.147	1.00	1	04/26/2019 19:27	WG1272563	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2019 19:27	WG1272563	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2019 19:27	WG1272563	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2019 19:27	WG1272563	
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2019 19:27	WG1272563	
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2019 19:27	WG1272563	
Ethylbenzene	U		0.158	0.500	1	04/26/2019 19:27	WG1272563	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2019 19:27	WG1272563	
2-Hexanone	U	JO	0.757	5.00	1	04/26/2019 19:27	WG1272563	
n-Hexane	U		0.305	5.00	1	04/26/2019 19:27	WG1272563	
Iodomethane	U		0.377	10.0	1	04/26/2019 19:27	WG1272563	
Isopropylbenzene	U		0.126	0.500	1	04/26/2019 19:27	WG1272563	
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2019 19:27	WG1272563	
2-Butanone (MEK)	U		1.28	5.00	1	04/26/2019 19:27	WG1272563	
Methylene Chloride	U		1.07	2.50	1	04/26/2019 19:27	WG1272563	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 19:27	WG1272563	
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 19:27	WG1272563	
Naphthalene	U		0.174	2.50	1	04/26/2019 19:27	WG1272563	
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 19:27	WG1272563	
Styrene	U		0.117	0.500	1	04/26/2019 19:27	WG1272563	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 19:27	WG1272563	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 19:27	WG1272563	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 19:27	WG1272563	
Tetrachloroethene	1430		9.95	25.0	50	05/02/2019 11:00	WG1274830	
Toluene	U		0.412	0.500	1	04/26/2019 19:27	WG1272563	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 19:27	WG1272563	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 19:27	WG1272563	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 19:27	WG1272563	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 19:27	WG1272563	
Trichloroethene	727		7.65	25.0	50	05/02/2019 11:00	WG1274830	
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	04/26/2019 19:27	WG1272563	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 19:27	WG1272563	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 19:27	WG1272563	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 19:27	WG1272563	JC 5/13/19
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 19:27	WG1272563	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Vinyl acetate	U		0.645	5.00	1	04/26/2019 19:27	WG1272563
Vinyl chloride	3.21	J	0.118	0.500	1	04/26/2019 19:27	WG1272563
Xylenes, Total	U		0.316	1.50	1	04/26/2019 19:27	WG1272563
(S) Toluene-d8	96.4			80.0-120		04/26/2019 19:27	WG1272563
(S) Toluene-d8	106			80.0-120		05/02/2019 11:00	WG1274830
(S) 4-Bromofluorobenzene	99.4			77.0-126		04/26/2019 19:27	WG1272563
(S) 4-Bromofluorobenzene	99.5			77.0-126		05/02/2019 11:00	WG1274830
(S) 1,2-Dichloroethane-d4	105			70.0-130		04/26/2019 19:27	WG1272563
(S) 1,2-Dichloroethane-d4	91.1			70.0-130		05/02/2019 11:00	WG1274830

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity	513000		2710	20000	1	05/02/2019 03:22	WG1273787

Sample Narrative:

L1092440-06 WG1273787: Endpoint pH 4.5 headspace

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	34100		51.9	1000	1	04/25/2019 19:39	WG1271815
Nitrate	U		22.7	100	1	04/25/2019 19:39	WG1271815
Sulfate	95000		77.4	5000	1	04/25/2019 19:39	WG1271815

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	39500		102	1000	1	04/26/2019 16:35	WG1272254

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Iron	9400		15.0	100	1	05/07/2019 22:58	WG1271844
Manganese	2130		0.250	5.00	1	05/07/2019 22:58	WG1271844

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	3210		31.6	100	1	04/26/2019 06:05	WG1272107
(S) a,a,a-Trifluorotoluene(FID)	112			78.0-120		04/26/2019 06:05	WG1272107

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methane	5510		0.287	0.678	1	05/02/2019 11:25	WG1274563
Ethane	36.0		0.296	1.29	1	05/02/2019 11:25	WG1274563
Ethene	119		0.422	1.27	1	05/02/2019 11:25	WG1274563

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	3.28	U	J JO	1.05	25.0	1	04/26/2019 19:47	WG1272563
Acrylonitrile	U			0.873	5.00	1	04/26/2019 19:47	WG1272563
Benzene	0.254	J	J	0.0896	0.500	1	04/26/2019 19:47	WG1272563
Bromobenzene	U			0.133	0.500	1	04/26/2019 19:47	WG1272563
Bromodichloromethane	U			0.0800	0.500	1	04/26/2019 19:47	WG1272563
Bromochloromethane	U			0.145	0.500	1	04/26/2019 19:47	WG1272563
Bromoform	U			0.186	0.500	1	04/26/2019 19:47	WG1272563
Bromomethane	U	UJ	J0	0.157	2.50	1	04/26/2019 19:47	WG1272563
n-Butylbenzene	U			0.143	0.500	1	04/26/2019 19:47	WG1272563
sec-Butylbenzene	U			0.134	0.500	1	04/26/2019 19:47	WG1272563
tert-Butylbenzene	U			0.183	0.500	1	04/26/2019 19:47	WG1272563
Carbon disulfide	0.137	J	J	0.101	0.500	1	04/26/2019 19:47	WG1272563
Carbon tetrachloride	U			0.159	0.500	1	04/26/2019 19:47	WG1272563

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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
Chlorobenzene	U		0.140	0.500	1	04/26/2019 19:47	WG1272563
Chlorodibromomethane	U		0.128	0.500	1	04/26/2019 19:47	WG1272563
Chloroethane	0.752	J <u>JJ0</u>	0.141	2.50	1	04/26/2019 19:47	WG1272563
Chloroform	U		0.0860	0.500	1	04/26/2019 19:47	WG1272563
Chloromethane	U		0.153	1.25	1	04/26/2019 19:47	WG1272563
2-Chlorotoluene	U		0.111	0.500	1	04/26/2019 19:47	WG1272563
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2019 19:47	WG1272563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/26/2019 19:47	WG1272563
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2019 19:47	WG1272563
Dibromomethane	U		0.117	0.500	1	04/26/2019 19:47	WG1272563
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2019 19:47	WG1272563
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2019 19:47	WG1272563
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2019 19:47	WG1272563
Dichlorodifluoromethane	U		0.127	2.50	1	04/26/2019 19:47	WG1272563
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2019 19:47	WG1272563
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2019 19:47	WG1272563
1,1-Dichloroethene	11.7		0.188	0.500	1	04/26/2019 19:47	WG1272563
cis-1,2-Dichloroethene	3550		4.66	25.0	50	05/02/2019 11:20	WG1274830
trans-1,2-Dichloroethene	15.9		0.152	0.500	1	04/26/2019 19:47	WG1272563
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2019 19:47	WG1272563
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2019 19:47	WG1272563
1,3-Dichloropropane	U		0.147	1.00	1	04/26/2019 19:47	WG1272563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2019 19:47	WG1272563
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2019 19:47	WG1272563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2019 19:47	WG1272563
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2019 19:47	WG1272563
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2019 19:47	WG1272563
Ethylbenzene	U		0.158	0.500	1	04/26/2019 19:47	WG1272563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2019 19:47	WG1272563
2-Hexanone	U	<u>J3</u>	0.757	5.00	1	04/26/2019 19:47	WG1272563
n-Hexane	U		0.305	5.00	1	04/26/2019 19:47	WG1272563
Iodomethane	U		0.377	10.0	1	04/26/2019 19:47	WG1272563
Isopropylbenzene	U		0.126	0.500	1	04/26/2019 19:47	WG1272563
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2019 19:47	WG1272563
2-Butanone (MEK)	U		1.28	5.00	1	04/26/2019 19:47	WG1272563
Methylene Chloride	U		1.07	2.50	1	04/26/2019 19:47	WG1272563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 19:47	WG1272563
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 19:47	WG1272563
Naphthalene	U		0.174	2.50	1	04/26/2019 19:47	WG1272563
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 19:47	WG1272563
Styrene	U		0.117	0.500	1	04/26/2019 19:47	WG1272563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 19:47	WG1272563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 19:47	WG1272563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 19:47	WG1272563
Tetrachloroethene	U		9.95	25.0	50	05/02/2019 11:20	WG1274830
Toluene	U		0.412	0.500	1	04/26/2019 19:47	WG1272563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 19:47	WG1272563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 19:47	WG1272563
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 19:47	WG1272563
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 19:47	WG1272563
Trichloroethene	8.52	J <u>J</u>	7.65	25.0	50	05/02/2019 11:20	WG1274830
Trichlorofluoromethane	U	UJ <u>J0</u>	0.130	2.50	1	04/26/2019 19:47	WG1272563
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 19:47	WG1272563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 19:47	WG1272563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 19:47	WG1272563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 19:47	WG1272563

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Vinyl acetate	U		0.645	5.00	1	04/26/2019 19:47	WG1272563
Vinyl chloride	622		5.90	25.0	50	05/02/2019 11:20	WG1274830
Xylenes, Total	U		0.316	1.50	1	04/26/2019 19:47	WG1272563
(S) Toluene-d8	101			80.0-120		04/26/2019 19:47	WG1272563
(S) Toluene-d8	106			80.0-120		05/02/2019 11:20	WG1274830
(S) 4-Bromofluorobenzene	106			77.0-126		04/26/2019 19:47	WG1272563
(S) 4-Bromofluorobenzene	100			77.0-126		05/02/2019 11:20	WG1274830
(S) 1,2-Dichloroethane-d4	92.8			70.0-130		04/26/2019 19:47	WG1272563
(S) 1,2-Dichloroethane-d4	91.4			70.0-130		05/02/2019 11:20	WG1274830

Sample Narrative:

L1092440-06 WG1272563, WG1274830: Not all compounds reportable at lower dilution.

L1092440-06 WG1272563, WG1274830: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 5/13/19



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	05/02/2019 15:18	WG1275218
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	98.4			78.0-120		05/02/2019 15:18	WG1275218

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	1.58	<u>J JO</u>	1.05	25.0	1	04/26/2019 17:27	WG1272563
Acrylonitrile	U		0.873	5.00	1	04/26/2019 17:27	WG1272563
Benzene	U		0.0896	0.500	1	04/26/2019 17:27	WG1272563
Bromobenzene	U		0.133	0.500	1	04/26/2019 17:27	WG1272563
Bromodichloromethane	U		0.0800	0.500	1	04/26/2019 17:27	WG1272563
Bromoform	U		0.145	0.500	1	04/26/2019 17:27	WG1272563
Bromomethane	U	<u>UJ</u> <u>JO</u>	0.157	2.50	1	04/26/2019 17:27	WG1272563
n-Butylbenzene	U		0.143	0.500	1	04/26/2019 17:27	WG1272563
sec-Butylbenzene	U		0.134	0.500	1	04/26/2019 17:27	WG1272563
tert-Butylbenzene	U		0.183	0.500	1	04/26/2019 17:27	WG1272563
Carbon disulfide	U		0.101	0.500	1	04/26/2019 17:27	WG1272563
Carbon tetrachloride	U		0.159	0.500	1	04/26/2019 17:27	WG1272563
Chlorobenzene	U		0.140	0.500	1	04/26/2019 17:27	WG1272563
Chlorodibromomethane	U		0.128	0.500	1	04/26/2019 17:27	WG1272563
Chloroethane	U	<u>UJ</u> <u>JO</u>	0.141	2.50	1	04/26/2019 17:27	WG1272563
Chloroform	U		0.0860	0.500	1	04/26/2019 17:27	WG1272563
Chloromethane	U		0.153	1.25	1	04/26/2019 17:27	WG1272563
2-Chlorotoluene	U		0.111	0.500	1	04/26/2019 17:27	WG1272563
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2019 17:27	WG1272563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/26/2019 17:27	WG1272563
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2019 17:27	WG1272563
Dibromomethane	U		0.117	0.500	1	04/26/2019 17:27	WG1272563
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2019 17:27	WG1272563
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2019 17:27	WG1272563
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2019 17:27	WG1272563
Dichlorodifluoromethane	U		0.127	2.50	1	04/26/2019 17:27	WG1272563
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2019 17:27	WG1272563
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2019 17:27	WG1272563
1,1-Dichloroethene	U		0.188	0.500	1	04/26/2019 17:27	WG1272563
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/26/2019 17:27	WG1272563
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/26/2019 17:27	WG1272563
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2019 17:27	WG1272563
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2019 17:27	WG1272563
1,3-Dichloropropane	U		0.147	1.00	1	04/26/2019 17:27	WG1272563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2019 17:27	WG1272563
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2019 17:27	WG1272563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2019 17:27	WG1272563
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2019 17:27	WG1272563
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2019 17:27	WG1272563
Ethylbenzene	U		0.158	0.500	1	04/26/2019 17:27	WG1272563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2019 17:27	WG1272563
2-Hexanone	U	<u>J3</u>	0.757	5.00	1	04/26/2019 17:27	WG1272563
n-Hexane	U		0.305	5.00	1	04/26/2019 17:27	WG1272563
Iodomethane	U		0.377	10.0	1	04/26/2019 17:27	WG1272563
Isopropylbenzene	U		0.126	0.500	1	04/26/2019 17:27	WG1272563
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2019 17:27	WG1272563
2-Butanone (MEK)	U		1.28	5.00	1	04/26/2019 17:27	WG1272563

JC 5/13/19



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch		
Methylene Chloride	U		1.07	2.50	1	04/26/2019 17:27	WG1272563	¹ Cp	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 17:27	WG1272563	² Tc	
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 17:27	WG1272563	³ Ss	
Naphthalene	U		0.174	2.50	1	04/26/2019 17:27	WG1272563		
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 17:27	WG1272563		
Styrene	U		0.117	0.500	1	04/26/2019 17:27	WG1272563		
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 17:27	WG1272563		
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 17:27	WG1272563		
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 17:27	WG1272563		
Tetrachloroethene	U		0.199	0.500	1	04/26/2019 17:27	WG1272563		
Toluene	U		0.412	0.500	1	04/26/2019 17:27	WG1272563	⁶ Qc	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 17:27	WG1272563		
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 17:27	WG1272563		
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 17:27	WG1272563		
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 17:27	WG1272563		
Trichloroethene	U		0.153	0.500	1	04/26/2019 17:27	WG1272563		
Trichlorofluoromethane	U	UJ	JO	0.130	2.50	1	04/26/2019 17:27	WG1272563	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 17:27	WG1272563		
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 17:27	WG1272563		
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 17:27	WG1272563		
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 17:27	WG1272563		
Vinyl acetate	U		0.645	5.00	1	04/26/2019 17:27	WG1272563		
Vinyl chloride	U	UJ	JO	0.118	0.500	1	04/26/2019 17:27	WG1272563	
Xylenes, Total	U		0.316	1.50	1	04/26/2019 17:27	WG1272563		
(S) Toluene-d8	97.1			80.0-120		04/26/2019 17:27	WG1272563		
(S) 4-Bromofluorobenzene	101			77.0-126		04/26/2019 17:27	WG1272563		
(S) 1,2-Dichloroethane-d4	90.1			70.0-130		04/26/2019 17:27	WG1272563		

JC 5/13/19

ANALYTICAL REPORT

May 08, 2019

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

PES Environmental, Inc.- WA

Sample Delivery Group: L1092880
Samples Received: 04/26/2019
Project Number: AMERICAN LINEN
Description: American Linen
Site: 1413.001.05.601
Report To: Brian O'Neal/Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

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 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-158-042519 L1092880-01 GW

Collected by
Ben Hecht
04/25/19 09:55

Collected date/time
Received date/time
04/26/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1274856	1	05/03/19 21:09	05/03/19 21:09	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1272235	1	04/26/19 22:31	04/26/19 22:31	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1273394	2	04/29/19 17:13	04/29/19 17:13	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271844	1	04/30/19 09:36	05/07/19 20:31	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1274492	1	05/01/19 14:16	05/01/19 14:16	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1275530	1	05/03/19 13:37	05/03/19 13:37	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1272563	1	04/26/19 23:06	04/26/19 23:06	BMB	Mt. Juliet, TN

W-MW-01-042519 L1092880-02 GW

Collected by
Ben Hecht
04/25/19 12:15

Collected date/time
Received date/time
04/26/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1274856	1	05/03/19 21:16	05/03/19 21:16	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1272235	1	04/26/19 23:00	04/26/19 23:00	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1273394	1	04/29/19 17:25	04/29/19 17:25	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271844	1	04/30/19 09:36	05/07/19 23:03	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1274492	1	05/01/19 14:37	05/01/19 14:37	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1275530	1	05/03/19 13:39	05/03/19 13:39	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1272563	1	04/26/19 23:26	04/26/19 23:26	BMB	Mt. Juliet, TN

R-MW6-042519 L1092880-03 GW

Collected by
Ben Hecht
04/25/19 13:20

Collected date/time
Received date/time
04/26/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1274492	1	05/01/19 14:57	05/01/19 14:57	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1272563	1	04/26/19 23:46	04/26/19 23:46	BMB	Mt. Juliet, TN

TRIPBLANK-042519 L1092880-04 GW

Collected by
Ben Hecht
04/25/19 00:00

Collected date/time
Received date/time
04/26/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1274492	1	05/01/19 13:14	05/01/19 13:14	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1272563	1	04/26/19 17:47	04/26/19 17:47	BMB	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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 GI
- ⁸ AI
- ⁹ SC



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	345000		2710	20000	1	05/03/2019 21:09	WG1274856

Sample Narrative:

L1092880-01 WG1274856: Endpoint pH 4.5 HEADSPACE

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	26700		51.9	1000	1	04/26/2019 22:31	WG1272235
Nitrate	U		22.7	100	1	04/26/2019 22:31	WG1272235
Sulfate	21100		77.4	5000	1	04/26/2019 22:31	WG1272235

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	8110		204	2000	2	04/29/2019 17:13	WG1273394

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	12400	<u>O1 V</u>	15.0	100	1	05/07/2019 20:31	WG1271844
Manganese	393	<u>O1</u>	0.250	5.00	1	05/07/2019 20:31	WG1271844

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	05/01/2019 14:16	WG1274492
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	93.7			78.0-120		05/01/2019 14:16	WG1274492

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	177		0.287	0.678	1	05/03/2019 13:37	WG1275530
Ethane	U		0.296	1.29	1	05/03/2019 13:37	WG1275530
Ethene	4.74		0.422	1.27	1	05/03/2019 13:37	WG1275530

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	3.23	<u>J JO</u>	1.05	25.0	1	04/26/2019 23:06	WG1272563
Acrylonitrile	U		0.873	5.00	1	04/26/2019 23:06	WG1272563
Benzene	U		0.0896	0.500	1	04/26/2019 23:06	WG1272563
Bromobenzene	U		0.133	0.500	1	04/26/2019 23:06	WG1272563
Bromodichloromethane	U		0.0800	0.500	1	04/26/2019 23:06	WG1272563
Bromochloromethane	U		0.145	0.500	1	04/26/2019 23:06	WG1272563
Bromoform	U		0.186	0.500	1	04/26/2019 23:06	WG1272563
Bromomethane	U	<u>JO</u>	0.157	2.50	1	04/26/2019 23:06	WG1272563
n-Butylbenzene	U		0.143	0.500	1	04/26/2019 23:06	WG1272563
sec-Butylbenzene	U		0.134	0.500	1	04/26/2019 23:06	WG1272563
tert-Butylbenzene	U		0.183	0.500	1	04/26/2019 23:06	WG1272563
Carbon disulfide	0.351	<u>J JO</u>	0.101	0.500	1	04/26/2019 23:06	WG1272563
Carbon tetrachloride	U		0.159	0.500	1	04/26/2019 23:06	WG1272563



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	04/26/2019 23:06	WG1272563
Chlorodibromomethane	U		0.128	0.500	1	04/26/2019 23:06	WG1272563
Chloroethane	U	J0	0.141	2.50	1	04/26/2019 23:06	WG1272563
Chloroform	U		0.0860	0.500	1	04/26/2019 23:06	WG1272563
Chloromethane	U		0.153	1.25	1	04/26/2019 23:06	WG1272563
2-Chlorotoluene	U		0.111	0.500	1	04/26/2019 23:06	WG1272563
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2019 23:06	WG1272563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/26/2019 23:06	WG1272563
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2019 23:06	WG1272563
Dibromomethane	U		0.117	0.500	1	04/26/2019 23:06	WG1272563
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2019 23:06	WG1272563
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2019 23:06	WG1272563
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2019 23:06	WG1272563
Dichlorodifluoromethane	U		0.127	2.50	1	04/26/2019 23:06	WG1272563
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2019 23:06	WG1272563
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2019 23:06	WG1272563
1,1-Dichloroethene	U		0.188	0.500	1	04/26/2019 23:06	WG1272563
cis-1,2-Dichloroethene	0.974		0.0933	0.500	1	04/26/2019 23:06	WG1272563
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/26/2019 23:06	WG1272563
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2019 23:06	WG1272563
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2019 23:06	WG1272563
1,3-Dichloropropane	U		0.147	1.00	1	04/26/2019 23:06	WG1272563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2019 23:06	WG1272563
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2019 23:06	WG1272563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2019 23:06	WG1272563
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2019 23:06	WG1272563
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2019 23:06	WG1272563
Ethylbenzene	U		0.158	0.500	1	04/26/2019 23:06	WG1272563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2019 23:06	WG1272563
2-Hexanone	U	J3	0.757	5.00	1	04/26/2019 23:06	WG1272563
n-Hexane	U		0.305	5.00	1	04/26/2019 23:06	WG1272563
Iodomethane	U		0.377	10.0	1	04/26/2019 23:06	WG1272563
Isopropylbenzene	U		0.126	0.500	1	04/26/2019 23:06	WG1272563
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2019 23:06	WG1272563
2-Butanone (MEK)	U		1.28	5.00	1	04/26/2019 23:06	WG1272563
Methylene Chloride	U		1.07	2.50	1	04/26/2019 23:06	WG1272563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 23:06	WG1272563
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 23:06	WG1272563
Naphthalene	U		0.174	2.50	1	04/26/2019 23:06	WG1272563
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 23:06	WG1272563
Styrene	U		0.117	0.500	1	04/26/2019 23:06	WG1272563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 23:06	WG1272563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 23:06	WG1272563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 23:06	WG1272563
Tetrachloroethene	U		0.199	0.500	1	04/26/2019 23:06	WG1272563
Toluene	U		0.412	0.500	1	04/26/2019 23:06	WG1272563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 23:06	WG1272563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 23:06	WG1272563
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 23:06	WG1272563
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 23:06	WG1272563
Trichloroethene	0.240	J	0.153	0.500	1	04/26/2019 23:06	WG1272563
Trichlorofluoromethane	U	J0	0.130	2.50	1	04/26/2019 23:06	WG1272563
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 23:06	WG1272563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 23:06	WG1272563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 23:06	WG1272563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 23:06	WG1272563

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

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	
Vinyl acetate	U		0.645	5.00	1	04/26/2019 23:06	WG1272563	¹ Cp
Vinyl chloride	3.08	<u>J0</u>	0.118	0.500	1	04/26/2019 23:06	WG1272563	² Tc
Xylenes, Total	U		0.316	1.50	1	04/26/2019 23:06	WG1272563	³ Ss
(S) Toluene-d8	100			80.0-120		04/26/2019 23:06	WG1272563	⁴ Cn
(S) 4-Bromofluorobenzene	104			77.0-126		04/26/2019 23:06	WG1272563	⁵ Sr
(S) 1,2-Dichloroethane-d4	93.0			70.0-130		04/26/2019 23:06	WG1272563	⁶ Qc
								⁷ Gl
								⁸ Al
								⁹ Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	246000		2710	20000	1	05/03/2019 21:16	WG1274856

Sample Narrative:

L1092880-02 WG1274856: Endpoint pH 4.5 HEADSPACE

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	33700		51.9	1000	1	04/26/2019 23:00	WG1272235
Nitrate	397		22.7	100	1	04/26/2019 23:00	WG1272235
Sulfate	80000		77.4	5000	1	04/26/2019 23:00	WG1272235

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	5410		102	1000	1	04/29/2019 17:25	WG1273394

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	2020		15.0	100	1	05/07/2019 23:03	WG1271844
Manganese	330		0.250	5.00	1	05/07/2019 23:03	WG1271844

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	05/01/2019 14:37	WG1274492
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	94.1			78.0-120		05/01/2019 14:37	WG1274492

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	10.2		0.287	0.678	1	05/03/2019 13:39	WG1275530
Ethane	U		0.296	1.29	1	05/03/2019 13:39	WG1275530
Ethene	U		0.422	1.27	1	05/03/2019 13:39	WG1275530

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	2.03	J JO	1.05	25.0	1	04/26/2019 23:26	WG1272563
Acrylonitrile	U		0.873	5.00	1	04/26/2019 23:26	WG1272563
Benzene	U		0.0896	0.500	1	04/26/2019 23:26	WG1272563
Bromobenzene	U		0.133	0.500	1	04/26/2019 23:26	WG1272563
Bromodichloromethane	U		0.0800	0.500	1	04/26/2019 23:26	WG1272563
Bromochloromethane	U		0.145	0.500	1	04/26/2019 23:26	WG1272563
Bromoform	U		0.186	0.500	1	04/26/2019 23:26	WG1272563
Bromomethane	U	J O	0.157	2.50	1	04/26/2019 23:26	WG1272563
n-Butylbenzene	U		0.143	0.500	1	04/26/2019 23:26	WG1272563
sec-Butylbenzene	U		0.134	0.500	1	04/26/2019 23:26	WG1272563
tert-Butylbenzene	U		0.183	0.500	1	04/26/2019 23:26	WG1272563
Carbon disulfide	U		0.101	0.500	1	04/26/2019 23:26	WG1272563
Carbon tetrachloride	U		0.159	0.500	1	04/26/2019 23:26	WG1272563



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	04/26/2019 23:26	WG1272563	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/26/2019 23:26	WG1272563	² Tc
Chloroethane	U	<u>J0</u>	0.141	2.50	1	04/26/2019 23:26	WG1272563	³ Ss
Chloroform	U		0.0860	0.500	1	04/26/2019 23:26	WG1272563	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/26/2019 23:26	WG1272563	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/26/2019 23:26	WG1272563	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2019 23:26	WG1272563	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/26/2019 23:26	WG1272563	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2019 23:26	WG1272563	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/26/2019 23:26	WG1272563	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2019 23:26	WG1272563	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2019 23:26	WG1272563	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2019 23:26	WG1272563	
Dichlorodifluoromethane	U		0.127	2.50	1	04/26/2019 23:26	WG1272563	
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2019 23:26	WG1272563	
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2019 23:26	WG1272563	
1,1-Dichloroethene	U		0.188	0.500	1	04/26/2019 23:26	WG1272563	
cis-1,2-Dichloroethene	0.572		0.0933	0.500	1	04/26/2019 23:26	WG1272563	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/26/2019 23:26	WG1272563	
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2019 23:26	WG1272563	
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2019 23:26	WG1272563	
1,3-Dichloropropane	U		0.147	1.00	1	04/26/2019 23:26	WG1272563	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2019 23:26	WG1272563	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2019 23:26	WG1272563	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2019 23:26	WG1272563	
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2019 23:26	WG1272563	
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2019 23:26	WG1272563	
Ethylbenzene	U		0.158	0.500	1	04/26/2019 23:26	WG1272563	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2019 23:26	WG1272563	
2-Hexanone	U	<u>J3</u>	0.757	5.00	1	04/26/2019 23:26	WG1272563	
n-Hexane	U		0.305	5.00	1	04/26/2019 23:26	WG1272563	
Iodomethane	U		0.377	10.0	1	04/26/2019 23:26	WG1272563	
Isopropylbenzene	U		0.126	0.500	1	04/26/2019 23:26	WG1272563	
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2019 23:26	WG1272563	
2-Butanone (MEK)	U		1.28	5.00	1	04/26/2019 23:26	WG1272563	
Methylene Chloride	U		1.07	2.50	1	04/26/2019 23:26	WG1272563	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 23:26	WG1272563	
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 23:26	WG1272563	
Naphthalene	0.211	<u>J</u>	0.174	2.50	1	04/26/2019 23:26	WG1272563	
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 23:26	WG1272563	
Styrene	U		0.117	0.500	1	04/26/2019 23:26	WG1272563	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 23:26	WG1272563	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 23:26	WG1272563	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 23:26	WG1272563	
Tetrachloroethene	U		0.199	0.500	1	04/26/2019 23:26	WG1272563	
Toluene	U		0.412	0.500	1	04/26/2019 23:26	WG1272563	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 23:26	WG1272563	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 23:26	WG1272563	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 23:26	WG1272563	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 23:26	WG1272563	
Trichloroethene	0.373	<u>J</u>	0.153	0.500	1	04/26/2019 23:26	WG1272563	
Trichlorofluoromethane	U	<u>J0</u>	0.130	2.50	1	04/26/2019 23:26	WG1272563	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 23:26	WG1272563	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 23:26	WG1272563	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 23:26	WG1272563	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 23:26	WG1272563	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
Vinyl acetate	U		0.645	5.00	1	04/26/2019 23:26	WG1272563	¹ Cp
Vinyl chloride	6.61	<u>J0</u>	0.118	0.500	1	04/26/2019 23:26	WG1272563	² Tc
Xylenes, Total	U		0.316	1.50	1	04/26/2019 23:26	WG1272563	³ Ss
(S) Toluene-d8	98.9			80.0-120		04/26/2019 23:26	WG1272563	
(S) 4-Bromofluorobenzene	105			77.0-126		04/26/2019 23:26	WG1272563	
(S) 1,2-Dichloroethane-d4	93.8			70.0-130		04/26/2019 23:26	WG1272563	



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	05/01/2019 14:57	WG1274492
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	93.6			78.0-120		05/01/2019 14:57	WG1274492

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
Acetone	2.91	<u>J</u> <u>J0</u>	1.05	25.0	1	04/26/2019 23:46	WG1272563
Acrylonitrile	U		0.873	5.00	1	04/26/2019 23:46	WG1272563
Benzene	U		0.0896	0.500	1	04/26/2019 23:46	WG1272563
Bromobenzene	U		0.133	0.500	1	04/26/2019 23:46	WG1272563
Bromodichloromethane	U		0.0800	0.500	1	04/26/2019 23:46	WG1272563
Bromoform	U		0.145	0.500	1	04/26/2019 23:46	WG1272563
Bromomethane	U	<u>J</u> <u>J0</u>	0.186	0.500	1	04/26/2019 23:46	WG1272563
n-Butylbenzene	U		0.143	0.500	1	04/26/2019 23:46	WG1272563
sec-Butylbenzene	U		0.134	0.500	1	04/26/2019 23:46	WG1272563
tert-Butylbenzene	U		0.183	0.500	1	04/26/2019 23:46	WG1272563
Carbon disulfide	U		0.101	0.500	1	04/26/2019 23:46	WG1272563
Carbon tetrachloride	U		0.159	0.500	1	04/26/2019 23:46	WG1272563
Chlorobenzene	U		0.140	0.500	1	04/26/2019 23:46	WG1272563
Chlorodibromomethane	U		0.128	0.500	1	04/26/2019 23:46	WG1272563
Chloroethane	U	<u>J</u> <u>J0</u>	0.141	2.50	1	04/26/2019 23:46	WG1272563
Chloroform	U		0.0860	0.500	1	04/26/2019 23:46	WG1272563
Chloromethane	U		0.153	1.25	1	04/26/2019 23:46	WG1272563
2-Chlorotoluene	U		0.111	0.500	1	04/26/2019 23:46	WG1272563
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2019 23:46	WG1272563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/26/2019 23:46	WG1272563
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2019 23:46	WG1272563
Dibromomethane	U		0.117	0.500	1	04/26/2019 23:46	WG1272563
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2019 23:46	WG1272563
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2019 23:46	WG1272563
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2019 23:46	WG1272563
Dichlorodifluoromethane	U		0.127	2.50	1	04/26/2019 23:46	WG1272563
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2019 23:46	WG1272563
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2019 23:46	WG1272563
1,1-Dichloroethene	U		0.188	0.500	1	04/26/2019 23:46	WG1272563
cis-1,2-Dichloroethene	11.8		0.0933	0.500	1	04/26/2019 23:46	WG1272563
trans-1,2-Dichloroethene	0.168	<u>J</u>	0.152	0.500	1	04/26/2019 23:46	WG1272563
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2019 23:46	WG1272563
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2019 23:46	WG1272563
1,3-Dichloropropane	U		0.147	1.00	1	04/26/2019 23:46	WG1272563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2019 23:46	WG1272563
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2019 23:46	WG1272563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2019 23:46	WG1272563
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2019 23:46	WG1272563
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2019 23:46	WG1272563
Ethylbenzene	U		0.158	0.500	1	04/26/2019 23:46	WG1272563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2019 23:46	WG1272563
2-Hexanone	U	<u>J</u> <u>J3</u>	0.757	5.00	1	04/26/2019 23:46	WG1272563
n-Hexane	U		0.305	5.00	1	04/26/2019 23:46	WG1272563
Iodomethane	U		0.377	10.0	1	04/26/2019 23:46	WG1272563
Isopropylbenzene	U		0.126	0.500	1	04/26/2019 23:46	WG1272563
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2019 23:46	WG1272563
2-Butanone (MEK)	U		1.28	5.00	1	04/26/2019 23:46	WG1272563



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	04/26/2019 23:46	WG1272563	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 23:46	WG1272563	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 23:46	WG1272563	³ Ss
Naphthalene	U		0.174	2.50	1	04/26/2019 23:46	WG1272563	
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 23:46	WG1272563	
Styrene	U		0.117	0.500	1	04/26/2019 23:46	WG1272563	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 23:46	WG1272563	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 23:46	WG1272563	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 23:46	WG1272563	
Tetrachloroethene	U		0.199	0.500	1	04/26/2019 23:46	WG1272563	
Toluene	U		0.412	0.500	1	04/26/2019 23:46	WG1272563	⁶ Qc
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 23:46	WG1272563	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 23:46	WG1272563	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 23:46	WG1272563	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 23:46	WG1272563	
Trichloroethene	0.370	J	0.153	0.500	1	04/26/2019 23:46	WG1272563	
Trichlorofluoromethane	U	JO	0.130	2.50	1	04/26/2019 23:46	WG1272563	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 23:46	WG1272563	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 23:46	WG1272563	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 23:46	WG1272563	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 23:46	WG1272563	
Vinyl acetate	U		0.645	5.00	1	04/26/2019 23:46	WG1272563	
Vinyl chloride	7.16	JO	0.118	0.500	1	04/26/2019 23:46	WG1272563	
Xylenes, Total	U		0.316	1.50	1	04/26/2019 23:46	WG1272563	
(S) Toluene-d8	95.8			80.0-120		04/26/2019 23:46	WG1272563	
(S) 4-Bromofluorobenzene	98.9			77.0-126		04/26/2019 23:46	WG1272563	
(S) 1,2-Dichloroethane-d4	93.2			70.0-130		04/26/2019 23:46	WG1272563	



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	05/01/2019 13:14	WG1274492
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	94.5			78.0-120		05/01/2019 13:14	WG1274492

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	2.62	<u>J JO</u>	1.05	25.0	1	04/26/2019 17:47	WG1272563
Acrylonitrile	U		0.873	5.00	1	04/26/2019 17:47	WG1272563
Benzene	U		0.0896	0.500	1	04/26/2019 17:47	WG1272563
Bromobenzene	U		0.133	0.500	1	04/26/2019 17:47	WG1272563
Bromodichloromethane	U		0.0800	0.500	1	04/26/2019 17:47	WG1272563
Bromoform	U		0.145	0.500	1	04/26/2019 17:47	WG1272563
Bromomethane	U	<u>J0</u>	0.157	2.50	1	04/26/2019 17:47	WG1272563
n-Butylbenzene	U		0.143	0.500	1	04/26/2019 17:47	WG1272563
sec-Butylbenzene	U		0.134	0.500	1	04/26/2019 17:47	WG1272563
tert-Butylbenzene	U		0.183	0.500	1	04/26/2019 17:47	WG1272563
Carbon disulfide	U		0.101	0.500	1	04/26/2019 17:47	WG1272563
Carbon tetrachloride	U		0.159	0.500	1	04/26/2019 17:47	WG1272563
Chlorobenzene	U		0.140	0.500	1	04/26/2019 17:47	WG1272563
Chlorodibromomethane	U		0.128	0.500	1	04/26/2019 17:47	WG1272563
Chloroethane	U	<u>J0</u>	0.141	2.50	1	04/26/2019 17:47	WG1272563
Chloroform	U		0.0860	0.500	1	04/26/2019 17:47	WG1272563
Chloromethane	U		0.153	1.25	1	04/26/2019 17:47	WG1272563
2-Chlorotoluene	U		0.111	0.500	1	04/26/2019 17:47	WG1272563
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2019 17:47	WG1272563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/26/2019 17:47	WG1272563
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2019 17:47	WG1272563
Dibromomethane	U		0.117	0.500	1	04/26/2019 17:47	WG1272563
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2019 17:47	WG1272563
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2019 17:47	WG1272563
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2019 17:47	WG1272563
Dichlorodifluoromethane	U		0.127	2.50	1	04/26/2019 17:47	WG1272563
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2019 17:47	WG1272563
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2019 17:47	WG1272563
1,1-Dichloroethene	U		0.188	0.500	1	04/26/2019 17:47	WG1272563
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/26/2019 17:47	WG1272563
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/26/2019 17:47	WG1272563
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2019 17:47	WG1272563
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2019 17:47	WG1272563
1,3-Dichloropropane	U		0.147	1.00	1	04/26/2019 17:47	WG1272563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2019 17:47	WG1272563
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2019 17:47	WG1272563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2019 17:47	WG1272563
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2019 17:47	WG1272563
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2019 17:47	WG1272563
Ethylbenzene	U		0.158	0.500	1	04/26/2019 17:47	WG1272563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2019 17:47	WG1272563
2-Hexanone	U	<u>J3</u>	0.757	5.00	1	04/26/2019 17:47	WG1272563
n-Hexane	U		0.305	5.00	1	04/26/2019 17:47	WG1272563
Iodomethane	U		0.377	10.0	1	04/26/2019 17:47	WG1272563
Isopropylbenzene	U		0.126	0.500	1	04/26/2019 17:47	WG1272563
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2019 17:47	WG1272563
2-Butanone (MEK)	U		1.28	5.00	1	04/26/2019 17:47	WG1272563



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	04/26/2019 17:47	WG1272563	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 17:47	WG1272563	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 17:47	WG1272563	³ Ss
Naphthalene	U		0.174	2.50	1	04/26/2019 17:47	WG1272563	
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 17:47	WG1272563	
Styrene	U		0.117	0.500	1	04/26/2019 17:47	WG1272563	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 17:47	WG1272563	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 17:47	WG1272563	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 17:47	WG1272563	
Tetrachloroethene	U		0.199	0.500	1	04/26/2019 17:47	WG1272563	
Toluene	U		0.412	0.500	1	04/26/2019 17:47	WG1272563	⁶ Qc
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 17:47	WG1272563	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 17:47	WG1272563	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 17:47	WG1272563	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 17:47	WG1272563	
Trichloroethene	U		0.153	0.500	1	04/26/2019 17:47	WG1272563	
Trichlorofluoromethane	U	^{JO}	0.130	2.50	1	04/26/2019 17:47	WG1272563	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 17:47	WG1272563	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 17:47	WG1272563	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 17:47	WG1272563	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 17:47	WG1272563	
Vinyl acetate	U		0.645	5.00	1	04/26/2019 17:47	WG1272563	
Vinyl chloride	U	^{JO}	0.118	0.500	1	04/26/2019 17:47	WG1272563	
Xylenes, Total	U		0.316	1.50	1	04/26/2019 17:47	WG1272563	
(S) Toluene-d8	101			80.0-120		04/26/2019 17:47	WG1272563	
(S) 4-Bromofluorobenzene	106			77.0-126		04/26/2019 17:47	WG1272563	
(S) 1,2-Dichloroethane-d4	92.9			70.0-130		04/26/2019 17:47	WG1272563	

L1092880-01,02

Method Blank (MB)

(MB) R3408070-1 05/03/19 17:39

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Alkalinity	3100	J	2710	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1092557-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1092557-01 05/03/19 18:13 • (DUP) R3408070-3 05/03/19 18:20

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Alkalinity	39900	39800	1	0.183		20

Sample Narrative:

OS: Endpoint pH 4.5 HEADSPACE

DUP: Endpoint pH 4.5

L1093120-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1093120-03 05/03/19 21:50 • (DUP) R3408070-6 05/03/19 21:57

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Alkalinity	128000	128000	1	0.0395		20

Sample Narrative:

OS: Endpoint pH 4.5 HEADSPACE

DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3408070-5 05/03/19 19:13

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Alkalinity	100000	97800	97.8	85.0-115	

Sample Narrative:

LCS: Endpoint pH 4.5

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



Method Blank (MB)

(MB) R3406015-1 04/26/19 11:01

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1091939-45 Original Sample (OS) • Duplicate (DUP)

(OS) L1091939-45 04/26/19 13:52 • (DUP) R3406015-3 04/26/19 14:06

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Chloride	10100	10100	1	0.211		15
Nitrate	42.3	42.1	1	0.474	J	15
Sulfate	1630	1630	1	0.227	J	15

L1092773-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1092773-01 04/26/19 19:23 • (DUP) R3406015-6 04/26/19 19:38

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Chloride	11100	11100	1	0.0999		15
Nitrate	U	0.000	1	0.000		15
Sulfate	31000	31000	1	0.0523		15

Laboratory Control Sample (LCS)

(LCS) R3406015-2 04/26/19 11:15

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Chloride	40000	40200	101	80.0-120	
Nitrate	8000	8120	102	80.0-120	
Sulfate	40000	41100	103	80.0-120	

L1092880-01,02

L1091939-45 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1091939-45 04/26/19 13:52 • (MS) R3406015-4 04/26/19 14:21 • (MSD) R3406015-5 04/26/19 14:35

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Chloride	50000	10100	59800	59800	99.4	99.5	1	80.0-120			0.0818	15
Nitrate	5000	42.3	4870	4870	96.5	96.5	1	80.0-120			0.00616	15
Sulfate	50000	1630	50800	51000	98.3	98.8	1	80.0-120			0.441	15

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1092773-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1092773-01 04/26/19 19:23 • (MS) R3406015-7 04/26/19 19:52

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>
Chloride	50000	11100	61300	100	1	80.0-120	
Nitrate	5000	U	4690	93.7	1	80.0-120	
Sulfate	50000	31000	78600	95.2	1	80.0-120	

WG1273394

Wet Chemistry by Method 9060A

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.



L1092880-01,02

Method Blank (MB)

(MB) R3406585-1 04/29/19 11:52

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	284	J	102	1000

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1092770-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1092770-01 04/29/19 13:19 • (DUP) R3406585-3 04/29/19 13:32

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
TOC (Total Organic Carbon)	8240	8150	1	1.15		20

L1093209-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1093209-03 04/29/19 18:04 • (DUP) R3406585-6 04/29/19 18:17

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
TOC (Total Organic Carbon)	4670	4640	1	0.623		20

Laboratory Control Sample (LCS)

(LCS) R3406585-2 04/29/19 12:30

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
TOC (Total Organic Carbon)	75000	77000	103	85.0-115	

L1092865-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1092865-02 04/29/19 16:29 • (MS) R3406585-4 04/29/19 16:45 • (MSD) R3406585-5 04/29/19 17:00

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
TOC (Total Organic Carbon)	50000	2150	50400	50000	96.5	95.7	1	80.0-120			0.836	20

L1093242-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1093242-06 04/29/19 20:23 • (MS) R3406585-7 04/29/19 20:39 • (MSD) R3406585-8 04/29/19 20:55

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
TOC (Total Organic Carbon)	50000	5190	51100	51100	91.8	91.9	1	80.0-120			0.137	20

ACCOUNT:

PES Environmental, Inc.- WA

PROJECT:

AMERICAN LINEN

SDG:

L1092880

DATE/TIME:

05/08/19 14:02

PAGE:

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Method Blank (MB)

(MB) R3409057-1 05/07/19 20:17

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Iron	87.3	J	15.0	100
Manganese	1.84	J	0.250	5.00

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3409057-2 05/07/19 20:22 • (LCSD) R3409057-3 05/07/19 20:26

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 %
Iron	500	449	441	89.8	88.1	80.0-120			1.93	20
Manganese	50.0	45.5	44.5	91.0	89.1	80.0-120			2.10	20

L1092880-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1092880-01 05/07/19 20:31 • (MS) R3409057-5 05/07/19 20:40 • (MSD) R3409057-6 05/07/19 20:45

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Iron	500	12400	13900	13700	286	251	1	75.0-125	V	V	1.26	20
Manganese	50.0	393	440	449	93.4	111	1	75.0-125			2.01	20

WG1274492

Volatile Organic Compounds (GC) by Method NWTPHGX

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

[L1092880-01,02,03,04](#)

Method Blank (MB)

(MB) R3407469-3 05/01/19 12:30

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	93.6			78.0-120

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3407469-1 05/01/19 11:25 • (LCSD) R3407469-2 05/01/19 11:46

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 %
Gasoline Range Organics-NWTPH	5500	5370	5440	97.6	98.9	70.0-124			1.33	20
(S) a,a,a-Trifluorotoluene(FID)				104	105	78.0-120				

L1092880-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1092880-01 05/01/19 14:16 • (MS) R3407469-4 05/01/19 19:05 • (MSD) R3407469-5 05/01/19 19:25

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	U	6290	5510	114	100	1	10.0-155			13.2	21
(S) a,a,a-Trifluorotoluene(FID)					109	107		78.0-120				

L1092880-01,02

Method Blank (MB)

(MB) R3407928-1 05/03/19 11:39

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al

L1092824-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1092824-01 05/03/19 11:46 • (DUP) R3407928-2 05/03/19 12:57

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Methane	ND	0.000	1	0.000		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

⁹Sc

L1092854-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1092854-07 05/03/19 13:27 • (DUP) R3407928-3 05/03/19 13:43

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Methane	4640	4630	1	0.284		20
Ethane	U	0.000	1	0.000		20
Ethene	U	0.000	1	0.000		20

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

(LCS) R3407928-4 05/03/19 13:48 • (LCSD) R3407928-5 05/03/19 13:52

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
Methane	67.8	75.9	74.2	112	109	85.0-115			2.30	20
Ethane	129	112	111	86.9	85.8	85.0-115			1.24	20
Ethene	127	112	111	88.2	87.1	85.0-115			1.21	20

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

[L1092880-01,02,03,04](#)

Method Blank (MB)

(MB) R3407258-3 04/26/19 16:26

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	1 Cp
Acetone	U		1.05	25.0	
Acrylonitrile	U		0.873	5.00	
Benzene	U		0.0896	0.500	
Bromobenzene	U		0.133	0.500	
Bromochloromethane	U		0.145	0.500	
Bromodichloromethane	U		0.0800	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	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	
1,1-Dichloropropene	U		0.128	0.500	
1,3-Dichloropropene	U		0.147	1.00	
cis-1,3-Dichloropropene	U		0.0976	0.500	
trans-1,3-Dichloropropene	U		0.222	0.500	
2,2-Dichloropropane	U		0.0929	0.500	
2-Hexanone	U		0.757	5.00	

ACCOUNT:

PES Environmental, Inc.- WA

PROJECT:

AMERICAN LINEN

SDG:

L1092880

DATE/TIME:

05/08/19 14:02

PAGE:

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[L1092880-01,02,03,04](#)

Method Blank (MB)

(MB) R3407258-3 04/26/19 16:26

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	
n-Hexane	U		0.305	5.00	¹ Cp
Di-isopropyl ether	U		0.0924	0.500	² Tc
Iodomethane	U		0.377	10.0	³ Ss
Ethylbenzene	U		0.158	0.500	⁴ Cn
Hexachloro-1,3-butadiene	U		0.157	1.00	⁵ Sr
Isopropylbenzene	U		0.126	0.500	⁶ Qc
p-Isopropyltoluene	U		0.138	0.500	⁷ Gl
2-Butanone (MEK)	U		1.28	5.00	⁸ Al
Methylene Chloride	U		1.07	2.50	⁹ Sc
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	
Tetrachloroethene	U		0.199	0.500	
Vinyl acetate	U		0.645	5.00	
Toluene	U		0.412	0.500	
1,1,2-Trichlorotrifluoroethane	U		0.164	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	
1,2,3-Trimethylbenzene	U		0.0739	0.500	
1,2,4-Trimethylbenzene	U		0.123	0.500	
1,3,5-Trimethylbenzene	U		0.124	0.500	
Vinyl chloride	U		0.118	0.500	
Xylenes, Total	U		0.316	1.50	
(S) Toluene-d8	97.5		80.0-120		
(S) 4-Bromofluorobenzene	104		77.0-126		
(S) 1,2-Dichloroethane-d4	91.0		70.0-130		



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

(LCS) R3407258-1 04/26/19 15:27 • (LCSD) R3407258-2 04/26/19 15:46

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 %	¹ Cp
Bromochloromethane	25.0	23.5	22.9	94.0	91.7	76.0-122			2.40	20	² Tc
Acetone	125	165	141	132	113	19.0-160			15.5	27	³ Ss
Acrylonitrile	125	132	149	106	119	55.0-149			11.9	20	⁴ Cn
Benzene	25.0	25.8	25.0	103	100	70.0-123			3.16	20	⁵ Sr
Bromobenzene	25.0	22.9	22.3	91.5	89.2	73.0-121			2.57	20	⁶ Qc
Bromodichloromethane	25.0	22.0	21.4	88.2	85.5	75.0-120			3.06	20	⁷ Gl
Bromoform	25.0	26.4	26.3	106	105	68.0-132			0.471	20	⁸ Al
Bromomethane	25.0	18.6	18.0	74.5	72.2	10.0-160			3.16	25	⁹ Sc
trans-1,4-Dichloro-2-butene	25.0	21.8	22.1	87.0	88.4	33.0-144			1.54	20	
n-Butylbenzene	25.0	22.3	21.4	89.2	85.8	73.0-125			3.98	20	
sec-Butylbenzene	25.0	23.0	22.3	92.0	89.2	75.0-125			3.08	20	
tert-Butylbenzene	25.0	24.1	23.0	96.4	92.0	76.0-124			4.65	20	
Carbon disulfide	25.0	32.0	26.4	128	106	61.0-128			19.2	20	
2-Hexanone	125	140	173	112	138	67.0-149	<u>J3</u>		21.1	20	
Carbon tetrachloride	25.0	24.4	24.1	97.6	96.4	68.0-126			1.19	20	
Chlorobenzene	25.0	23.9	23.3	95.5	93.1	80.0-121			2.56	20	
n-Hexane	25.0	29.3	28.0	117	112	57.0-133			4.46	20	
Chlorodibromomethane	25.0	23.5	23.3	94.1	93.2	77.0-125			1.02	20	
Iodomethane	125	133	128	106	103	33.0-147			3.26	26	
Chloroethane	25.0	17.3	16.9	69.2	67.5	47.0-150			2.56	20	
Chloroform	25.0	21.7	21.0	86.9	84.0	73.0-120			3.34	20	
Chloromethane	25.0	26.6	25.7	106	103	41.0-142			3.39	20	
2-Chlortoluene	25.0	22.7	22.0	90.8	88.1	76.0-123			3.09	20	
4-Chlortoluene	25.0	23.0	22.3	91.9	89.0	75.0-122			3.22	20	
1,2-Dibromo-3-Chloropropane	25.0	26.2	26.7	105	107	58.0-134			1.93	20	
1,2-Dibromoethane	25.0	23.3	23.7	93.3	94.7	80.0-122			1.49	20	
Dibromomethane	25.0	22.2	21.7	88.7	86.8	80.0-120			2.12	20	
1,2-Dichlorobenzene	25.0	23.3	22.8	93.3	91.2	79.0-121			2.30	20	
1,3-Dichlorobenzene	25.0	23.1	22.5	92.4	90.2	79.0-120			2.42	20	
1,4-Dichlorobenzene	25.0	22.1	21.7	88.4	86.9	79.0-120			1.77	20	
Dichlorodifluoromethane	25.0	31.5	29.2	126	117	51.0-149			7.67	20	
1,1-Dichloroethane	25.0	24.1	23.3	96.5	93.3	70.0-126			3.42	20	
1,2-Dichloroethane	25.0	20.2	19.8	81.0	79.2	70.0-128			2.20	20	
1,1-Dichloroethene	25.0	26.8	23.7	107	94.7	71.0-124			12.5	20	
cis-1,2-Dichloroethene	25.0	23.8	23.2	95.2	92.9	73.0-120			2.49	20	
trans-1,2-Dichloroethene	25.0	26.3	23.9	105	95.7	73.0-120			9.45	20	
1,2-Dichloropropane	25.0	25.6	25.5	102	102	77.0-125			0.479	20	
1,1-Dichloropropene	25.0	25.0	23.7	100	94.7	74.0-126			5.45	20	
1,3-Dichloropropane	25.0	24.0	23.9	96.1	95.7	80.0-120			0.492	20	
cis-1,3-Dichloropropene	25.0	23.8	23.3	95.1	93.2	80.0-123			2.03	20	



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

(LCS) R3407258-1 04/26/19 15:27 • (LCSD) R3407258-2 04/26/19 15:46

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 %
Vinyl acetate	125	116	114	92.8	91.1	11.0-160			1.90	20
trans-1,3-Dichloropropene	25.0	23.1	22.2	92.6	89.0	78.0-124			3.97	20
2,2-Dichloropropane	25.0	32.0	30.3	128	121	58.0-130			5.52	20
Di-isopropyl ether	25.0	27.0	26.7	108	107	58.0-138			1.11	20
Ethylbenzene	25.0	24.7	24.1	98.9	96.2	79.0-123			2.77	20
Hexachloro-1,3-butadiene	25.0	28.3	28.9	113	116	54.0-138			2.00	20
Isopropylbenzene	25.0	25.5	24.8	102	99.3	76.0-127			2.77	20
p-Isopropyltoluene	25.0	23.4	22.6	93.4	90.4	76.0-125			3.26	20
2-Butanone (MEK)	125	144	150	116	120	44.0-160			3.60	20
Methylene Chloride	25.0	27.2	23.8	109	95.3	67.0-120			13.4	20
4-Methyl-2-pentanone (MIBK)	125	135	139	108	111	68.0-142			2.35	20
Methyl tert-butyl ether	25.0	22.9	22.8	91.4	91.3	68.0-125			0.127	20
Naphthalene	25.0	23.5	24.1	94.2	96.6	54.0-135			2.50	20
n-Propylbenzene	25.0	22.5	21.7	90.0	86.8	77.0-124			3.58	20
Styrene	25.0	26.9	26.7	108	107	73.0-130			0.962	20
1,1,1,2-Tetrachloroethane	25.0	23.5	23.2	94.0	92.7	75.0-125			1.47	20
1,1,2,2-Tetrachloroethane	25.0	22.1	21.6	88.4	86.4	65.0-130			2.38	20
Tetrachloroethene	25.0	26.3	25.2	105	101	72.0-132			4.03	20
Toluene	25.0	25.9	25.3	103	101	79.0-120			2.21	20
1,1,2-Trichlorotrifluoroethane	25.0	25.7	22.6	103	90.4	69.0-132			12.7	20
1,2,3-Trichlorobenzene	25.0	22.8	24.0	91.2	95.9	50.0-138			5.02	20
1,2,4-Trichlorobenzene	25.0	24.8	24.8	99.0	99.2	57.0-137			0.213	20
1,1,1-Trichloroethane	25.0	24.3	22.7	97.4	90.9	73.0-124			6.84	20
1,1,2-Trichloroethane	25.0	22.5	22.2	90.1	88.8	80.0-120			1.49	20
Trichloroethene	25.0	25.6	24.4	102	97.5	78.0-124			4.75	20
Trichlorofluoromethane	25.0	17.0	16.2	68.0	64.9	59.0-147			4.64	20
1,2,3-Trichloropropane	25.0	20.7	19.8	83.0	79.3	73.0-130			4.50	20
1,2,3-Trimethylbenzene	25.0	21.4	21.2	85.6	84.7	77.0-120			1.01	20
1,2,4-Trimethylbenzene	25.0	22.2	21.6	89.0	86.3	76.0-121			3.10	20
1,3,5-Trimethylbenzene	25.0	22.8	21.9	91.1	87.7	76.0-122			3.74	20
Vinyl chloride	25.0	19.3	18.1	77.2	72.4	67.0-131			6.36	20
Xylenes, Total	75.0	74.0	73.0	98.7	97.3	79.0-123			1.36	20
(S) Toluene-d8				102	101	80.0-120				
(S) 4-Bromofluorobenzene				107	107	77.0-126				
(S) 1,2-Dichloroethane-d4				90.3	89.6	70.0-130				

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



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.	¹ Cp
ND	Not detected at the Reporting Limit (or MDL where applicable).	² Tc
RDL	Reported Detection Limit.	³ Ss
Rec.	Recovery.	⁴ Cn
RPD	Relative Percent Difference.	⁵ Sr
SDG	Sample Delivery Group.	⁶ Qc
(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.	⁷ GI
U	Not detected at the Reporting Limit (or MDL where applicable).	⁸ AI
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	⁹ SC
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

J	The identification of the analyte is acceptable; the reported value is an estimate.
JO	JO: The identification of the analyte is acceptable, but the reported concentration is an estimate. The calibration met method criteria.
J3	The associated batch QC was outside the established quality control range for precision.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
V	The sample concentration is too high to evaluate accurate spike recoveries.



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
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia ¹	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky ^{1,6}	90010
Kentucky ²	16
Louisiana	AI30792
Louisiana ¹	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LA000356
South Carolina	84004
South Dakota	n/a
Tennessee ^{1,4}	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

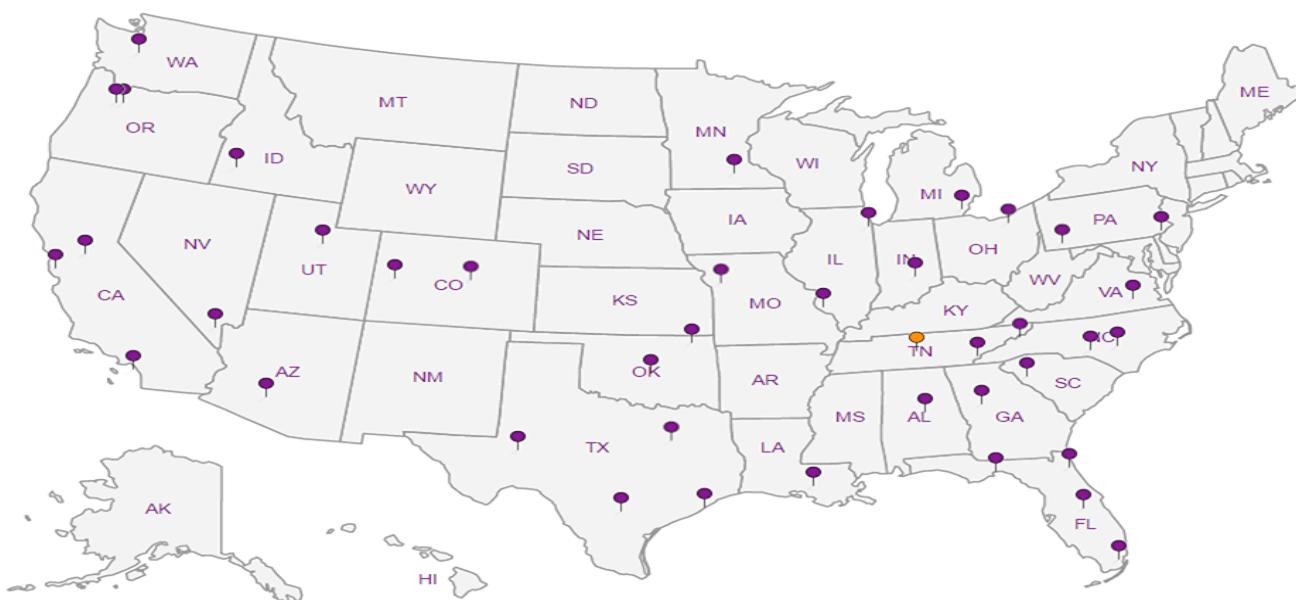
A2LA – ISO 17025	1461.01
A2LA – ISO 17025 ⁵	1461.02
Canada	1461.01
EPA-Crypto	TN00003

AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

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.



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

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Report to:
Brian O'Neal/Bill Haldeman

Project Description: American Dryer
City/State Collected: Seattle, WA

Phone: 206-529-3980
Fax: 206-529-3985

Collected by (print): Ben Hecht
Site/Facility ID #: 1413-001.05.601

Collected by (signature):
Immediately Packed on Ice N Y ✓
Rush? (Lab MUST Be Notified)
Same Day Five Day
Next Day 5 Day (Rad Only)
Two Day 10 Day (Rad Only)
Three Day

Date Results Needed STAT
No. of Cntrs 113

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time		NWTPHGX 40ml/Amb HCl	VOCS 8260LLC 40ml/Amb-HCl	M03 SO4 Cl x 125mL	Alkalinity x 125mL	EBM (RSK11SCC) x 40 mL	TOC x 250mL Amb.	Total Fe Mn 6020 250mL 60	
MW-158-042519 Grab	GW	~25	4-25-19	0955	12		X	X	X	X	X	X		-01
W-MW-01-042519	GW	~75		1215	12		X	X	X	X	X	X		02
R-MW6-042519	GW	~17	↓	1320	6		X	X	X	X	X	X		03
TRIP/BLANK-042519	GW	—	—	—	1		X	X	X	X	X	X		04
	GW													
	GW													
	GW													
	GW													
	GW													
	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 #

468664699982

pH _____ Temp _____

Flow _____ Other _____

Sample Receipt Checklist	
COC Seal Present/Intact: <input checked="" type="checkbox"/>	NP <input checked="" type="checkbox"/> N <input type="checkbox"/>
COC Signed/Accurate: <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> N
Bottles arrive intact: <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> N
Correct bottles used: <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> N
Sufficient volume sent: <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> If Applicable
VOA Zero Headspace: <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> N
Preservation Correct/Checked: <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> N
RAD SCREEN: <0.5 mR/hr	

Relinquished by : (Signature)

Date: 4/25/19 Time: 16:00

Received by: (Signature)

Trip Blank Received: No MeOH
TBR

Relinquished by : (Signature)

Date: Time:

Received by: (Signature)

Temp: 43°F °C Bottles Received:
3.4±0.3.4 29

If preservation required by Login: Date/Time

Relinquished by : (Signature)

Date: Time:

Received for lab by: (Signature)

Date: 4/26/19 Time: 0845

Hold: Condition: NCF / OK

Chain of Custody Page ____ of ____



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



L# L1092880
1032

Acctnum: PEENVSWA

Template: T149294

Prelogin: P704872

TSR: 110 - Brian Ford

PB:

Shipped Via:

Remarks	Sample # (lab only)
---------	---------------------



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity	345000		2710	20000	1	05/03/2019 21:09	WG1274856

Sample Narrative:

L1092880-01 WG1274856: Endpoint pH 4.5 HEADSPACE

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	26700		51.9	1000	1	04/26/2019 22:31	WG1272235
Nitrate	U		22.7	100	1	04/26/2019 22:31	WG1272235
Sulfate	21100		77.4	5000	1	04/26/2019 22:31	WG1272235

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	8110		204	2000	2	04/29/2019 17:13	WG1273394

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Iron	12400 J	O1 V	15.0	100	1	05/07/2019 20:31	WG1271844
Manganese	393 J	O1	0.250	5.00	1	05/07/2019 20:31	WG1271844

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	05/01/2019 14:16	WG1274492
(S) a,a,a-Trifluorotoluene(FID)	93.7			78.0-120		05/01/2019 14:16	WG1274492

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methane	177		0.287	0.678	1	05/03/2019 13:37	WG1275530
Ethane	U		0.296	1.29	1	05/03/2019 13:37	WG1275530
Ethene	4.74		0.422	1.27	1	05/03/2019 13:37	WG1275530

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	3.23 U	J J0	1.05	25.0	1	04/26/2019 23:06	WG1272563
Acrylonitrile	U		0.873	5.00	1	04/26/2019 23:06	WG1272563
Benzene	U		0.0896	0.500	1	04/26/2019 23:06	WG1272563
Bromobenzene	U		0.133	0.500	1	04/26/2019 23:06	WG1272563
Bromodichloromethane	U		0.0800	0.500	1	04/26/2019 23:06	WG1272563
Bromochloromethane	U		0.145	0.500	1	04/26/2019 23:06	WG1272563
Bromoform	U		0.186	0.500	1	04/26/2019 23:06	WG1272563
Bromomethane	U UJ	J0	0.157	2.50	1	04/26/2019 23:06	WG1272563
n-Butylbenzene	U		0.143	0.500	1	04/26/2019 23:06	WG1272563
sec-Butylbenzene	U		0.134	0.500	1	04/26/2019 23:06	WG1272563
tert-Butylbenzene	U		0.183	0.500	1	04/26/2019 23:06	WG1272563
Carbon disulfide	0.351 J	J J0	0.101	0.500	1	04/26/2019 23:06	WG1272563
Carbon tetrachloride	U		0.159	0.500	1	04/26/2019 23:06	WG1272563

JC 5/13/19



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	04/26/2019 23:06	WG1272563	
Chlorodibromomethane	U		0.128	0.500	1	04/26/2019 23:06	WG1272563	
Chloroethane	U	<u>UJ</u>	<u>J0</u>	0.141	2.50	1	04/26/2019 23:06	WG1272563
Chloroform	U		0.0860	0.500	1	04/26/2019 23:06	WG1272563	
Chloromethane	U		0.153	1.25	1	04/26/2019 23:06	WG1272563	
2-Chlorotoluene	U		0.111	0.500	1	04/26/2019 23:06	WG1272563	
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2019 23:06	WG1272563	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/26/2019 23:06	WG1272563	
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2019 23:06	WG1272563	
Dibromomethane	U		0.117	0.500	1	04/26/2019 23:06	WG1272563	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2019 23:06	WG1272563	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2019 23:06	WG1272563	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2019 23:06	WG1272563	
Dichlorodifluoromethane	U		0.127	2.50	1	04/26/2019 23:06	WG1272563	
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2019 23:06	WG1272563	
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2019 23:06	WG1272563	
1,1-Dichloroethene	U		0.188	0.500	1	04/26/2019 23:06	WG1272563	
cis-1,2-Dichloroethene	0.974		0.0933	0.500	1	04/26/2019 23:06	WG1272563	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/26/2019 23:06	WG1272563	
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2019 23:06	WG1272563	
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2019 23:06	WG1272563	
1,3-Dichloropropane	U		0.147	1.00	1	04/26/2019 23:06	WG1272563	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2019 23:06	WG1272563	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2019 23:06	WG1272563	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2019 23:06	WG1272563	
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2019 23:06	WG1272563	
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2019 23:06	WG1272563	
Ethylbenzene	U		0.158	0.500	1	04/26/2019 23:06	WG1272563	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2019 23:06	WG1272563	
2-Hexanone	U	<u>J3</u>	0.757	5.00	1	04/26/2019 23:06	WG1272563	
n-Hexane	U		0.305	5.00	1	04/26/2019 23:06	WG1272563	
Iodomethane	U		0.377	10.0	1	04/26/2019 23:06	WG1272563	
Isopropylbenzene	U		0.126	0.500	1	04/26/2019 23:06	WG1272563	
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2019 23:06	WG1272563	
2-Butanone (MEK)	U		1.28	5.00	1	04/26/2019 23:06	WG1272563	
Methylene Chloride	U		1.07	2.50	1	04/26/2019 23:06	WG1272563	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 23:06	WG1272563	
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 23:06	WG1272563	
Naphthalene	U		0.174	2.50	1	04/26/2019 23:06	WG1272563	
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 23:06	WG1272563	
Styrene	U		0.117	0.500	1	04/26/2019 23:06	WG1272563	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 23:06	WG1272563	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 23:06	WG1272563	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 23:06	WG1272563	
Tetrachloroethene	U		0.199	0.500	1	04/26/2019 23:06	WG1272563	
Toluene	U		0.412	0.500	1	04/26/2019 23:06	WG1272563	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 23:06	WG1272563	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 23:06	WG1272563	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 23:06	WG1272563	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 23:06	WG1272563	
Trichloroethene	0.240	<u>J</u>	<u>J</u>	0.153	0.500	1	04/26/2019 23:06	WG1272563
Trichlorofluoromethane	U	<u>UJ</u>	<u>J0</u>	0.130	2.50	1	04/26/2019 23:06	WG1272563
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 23:06	WG1272563	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 23:06	WG1272563	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 23:06	WG1272563	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 23:06	WG1272563	

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ 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		
Vinyl acetate	U		0.645	5.00	1	04/26/2019 23:06	WG1272563	¹ Cp	
Vinyl chloride	3.08	J	<u>JO</u>	0.118	0.500	1	04/26/2019 23:06	WG1272563	² Tc
Xylenes, Total	U		0.316	1.50	1	04/26/2019 23:06	WG1272563	³ Ss	
(S) Toluene-d8	100			80.0-120		04/26/2019 23:06	WG1272563	⁴ Cn	
(S) 4-Bromofluorobenzene	104			77.0-126		04/26/2019 23:06	WG1272563	⁵ Sr	
(S) 1,2-Dichloroethane-d4	93.0			70.0-130		04/26/2019 23:06	WG1272563	⁶ Qc	
								⁷ Gl	
								⁸ Al	
								⁹ Sc	

JC 5/13/19



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	246000		2710	20000	1	05/03/2019 21:16	WG1274856

Sample Narrative:

L1092880-02 WG1274856: Endpoint pH 4.5 HEADSPACE

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	33700		51.9	1000	1	04/26/2019 23:00	WG1272235
Nitrate	397		22.7	100	1	04/26/2019 23:00	WG1272235
Sulfate	80000		77.4	5000	1	04/26/2019 23:00	WG1272235

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	5410		102	1000	1	04/29/2019 17:25	WG1273394

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	2020		15.0	100	1	05/07/2019 23:03	WG1271844
Manganese	330		0.250	5.00	1	05/07/2019 23:03	WG1271844

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	05/01/2019 14:37	WG1274492
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	94.1			78.0-120		05/01/2019 14:37	WG1274492

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	10.2		0.287	0.678	1	05/03/2019 13:39	WG1275530
Ethane	U		0.296	1.29	1	05/03/2019 13:39	WG1275530
Ethene	U		0.422	1.27	1	05/03/2019 13:39	WG1275530

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
Acetone	2.03	U	J JO	1.05	25.0	1	04/26/2019 23:26	WG1272563
Acrylonitrile	U			0.873	5.00	1	04/26/2019 23:26	WG1272563
Benzene	U			0.0896	0.500	1	04/26/2019 23:26	WG1272563
Bromobenzene	U			0.133	0.500	1	04/26/2019 23:26	WG1272563
Bromodichloromethane	U			0.0800	0.500	1	04/26/2019 23:26	WG1272563
Bromoform	U			0.145	0.500	1	04/26/2019 23:26	WG1272563
Bromomethane	U	UJ	J0	0.157	2.50	1	04/26/2019 23:26	WG1272563
n-Butylbenzene	U			0.143	0.500	1	04/26/2019 23:26	WG1272563
sec-Butylbenzene	U			0.134	0.500	1	04/26/2019 23:26	WG1272563
tert-Butylbenzene	U			0.183	0.500	1	04/26/2019 23:26	WG1272563
Carbon disulfide	U			0.101	0.500	1	04/26/2019 23:26	WG1272563
Carbon tetrachloride	U			0.159	0.500	1	04/26/2019 23:26	WG1272563



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	04/26/2019 23:26	WG1272563	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/26/2019 23:26	WG1272563	² Tc
Chloroethane	U	UJ JO	0.141	2.50	1	04/26/2019 23:26	WG1272563	³ Ss
Chloroform	U		0.0860	0.500	1	04/26/2019 23:26	WG1272563	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/26/2019 23:26	WG1272563	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/26/2019 23:26	WG1272563	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2019 23:26	WG1272563	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/26/2019 23:26	WG1272563	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2019 23:26	WG1272563	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/26/2019 23:26	WG1272563	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2019 23:26	WG1272563	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2019 23:26	WG1272563	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2019 23:26	WG1272563	
Dichlorodifluoromethane	U		0.127	2.50	1	04/26/2019 23:26	WG1272563	
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2019 23:26	WG1272563	
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2019 23:26	WG1272563	
1,1-Dichloroethene	U		0.188	0.500	1	04/26/2019 23:26	WG1272563	
cis-1,2-Dichloroethene	0.572		0.0933	0.500	1	04/26/2019 23:26	WG1272563	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/26/2019 23:26	WG1272563	
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2019 23:26	WG1272563	
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2019 23:26	WG1272563	
1,3-Dichloropropane	U		0.147	1.00	1	04/26/2019 23:26	WG1272563	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2019 23:26	WG1272563	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2019 23:26	WG1272563	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2019 23:26	WG1272563	
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2019 23:26	WG1272563	
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2019 23:26	WG1272563	
Ethylbenzene	U		0.158	0.500	1	04/26/2019 23:26	WG1272563	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2019 23:26	WG1272563	
2-Hexanone	U	JS	0.757	5.00	1	04/26/2019 23:26	WG1272563	
n-Hexane	U		0.305	5.00	1	04/26/2019 23:26	WG1272563	
Iodomethane	U		0.377	10.0	1	04/26/2019 23:26	WG1272563	
Isopropylbenzene	U		0.126	0.500	1	04/26/2019 23:26	WG1272563	
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2019 23:26	WG1272563	
2-Butanone (MEK)	U		1.28	5.00	1	04/26/2019 23:26	WG1272563	
Methylene Chloride	U		1.07	2.50	1	04/26/2019 23:26	WG1272563	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 23:26	WG1272563	
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 23:26	WG1272563	
Naphthalene	0.211	J J	0.174	2.50	1	04/26/2019 23:26	WG1272563	
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 23:26	WG1272563	
Styrene	U		0.117	0.500	1	04/26/2019 23:26	WG1272563	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 23:26	WG1272563	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 23:26	WG1272563	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 23:26	WG1272563	
Tetrachloroethene	U		0.199	0.500	1	04/26/2019 23:26	WG1272563	
Toluene	U		0.412	0.500	1	04/26/2019 23:26	WG1272563	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 23:26	WG1272563	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 23:26	WG1272563	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 23:26	WG1272563	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 23:26	WG1272563	
Trichloroethene	0.373	J J	0.153	0.500	1	04/26/2019 23:26	WG1272563	
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	04/26/2019 23:26	WG1272563	JC 5/13/19
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 23:26	WG1272563	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 23:26	WG1272563	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 23:26	WG1272563	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 23:26	WG1272563	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch		
Vinyl acetate	U		0.645	5.00	1	04/26/2019 23:26	WG1272563	¹ Cp	
Vinyl chloride	6.61	J	<u>JO</u>	0.118	0.500	1	04/26/2019 23:26	WG1272563	² Tc
Xylenes, Total	U		0.316	1.50	1	04/26/2019 23:26	WG1272563	³ Ss	
(S) Toluene-d8	98.9			80.0-120		04/26/2019 23:26	WG1272563	⁴ Cn	
(S) 4-Bromofluorobenzene	105			77.0-126		04/26/2019 23:26	WG1272563	⁵ Sr	
(S) 1,2-Dichloroethane-d4	93.8			70.0-130		04/26/2019 23:26	WG1272563	⁶ Qc	

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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	05/01/2019 14:57	WG1274492
(S)-a,a,a-Trifluorotoluene(FID)	93.6			78.0-120		05/01/2019 14:57	WG1274492

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Acetone	2.91	U	<u>J</u> <u>J</u>	1.05	25.0	1	04/26/2019 23:46	WG1272563
Acrylonitrile	U			0.873	5.00	1	04/26/2019 23:46	WG1272563
Benzene	U			0.0896	0.500	1	04/26/2019 23:46	WG1272563
Bromobenzene	U			0.133	0.500	1	04/26/2019 23:46	WG1272563
Bromodichloromethane	U			0.0800	0.500	1	04/26/2019 23:46	WG1272563
Bromoform	U			0.145	0.500	1	04/26/2019 23:46	WG1272563
Bromomethane	U			0.186	0.500	1	04/26/2019 23:46	WG1272563
n-Butylbenzene	U			0.143	0.500	1	04/26/2019 23:46	WG1272563
sec-Butylbenzene	U			0.134	0.500	1	04/26/2019 23:46	WG1272563
tert-Butylbenzene	U			0.183	0.500	1	04/26/2019 23:46	WG1272563
Carbon disulfide	U			0.101	0.500	1	04/26/2019 23:46	WG1272563
Carbon tetrachloride	U			0.159	0.500	1	04/26/2019 23:46	WG1272563
Chlorobenzene	U			0.140	0.500	1	04/26/2019 23:46	WG1272563
Chlorodibromomethane	U			0.128	0.500	1	04/26/2019 23:46	WG1272563
Chloroethane	U			0.141	2.50	1	04/26/2019 23:46	WG1272563
Chloroform	U			0.0860	0.500	1	04/26/2019 23:46	WG1272563
Chloromethane	U			0.153	1.25	1	04/26/2019 23:46	WG1272563
2-Chlorotoluene	U			0.111	0.500	1	04/26/2019 23:46	WG1272563
4-Chlorotoluene	U			0.0972	0.500	1	04/26/2019 23:46	WG1272563
1,2-Dibromo-3-Chloropropane	U			0.325	2.50	1	04/26/2019 23:46	WG1272563
1,2-Dibromoethane	U			0.193	0.500	1	04/26/2019 23:46	WG1272563
Dibromomethane	U			0.117	0.500	1	04/26/2019 23:46	WG1272563
1,2-Dichlorobenzene	U			0.101	0.500	1	04/26/2019 23:46	WG1272563
1,3-Dichlorobenzene	U			0.130	0.500	1	04/26/2019 23:46	WG1272563
1,4-Dichlorobenzene	U			0.121	0.500	1	04/26/2019 23:46	WG1272563
Dichlorodifluoromethane	U			0.127	2.50	1	04/26/2019 23:46	WG1272563
1,1-Dichloroethane	U			0.114	0.500	1	04/26/2019 23:46	WG1272563
1,2-Dichloroethane	U			0.108	0.500	1	04/26/2019 23:46	WG1272563
1,1-Dichloroethene	U			0.188	0.500	1	04/26/2019 23:46	WG1272563
cis-1,2-Dichloroethene	11.8			0.0933	0.500	1	04/26/2019 23:46	WG1272563
trans-1,2-Dichloroethene	0.168	J	J	0.152	0.500	1	04/26/2019 23:46	WG1272563
1,2-Dichloropropane	U			0.190	0.500	1	04/26/2019 23:46	WG1272563
1,1-Dichloropropene	U			0.128	0.500	1	04/26/2019 23:46	WG1272563
1,3-Dichloropropane	U			0.147	1.00	1	04/26/2019 23:46	WG1272563
cis-1,3-Dichloropropene	U			0.0976	0.500	1	04/26/2019 23:46	WG1272563
trans-1,3-Dichloropropene	U			0.222	0.500	1	04/26/2019 23:46	WG1272563
trans-1,4-Dichloro-2-butene	U			0.257	5.00	1	04/26/2019 23:46	WG1272563
2,2-Dichloropropane	U			0.0929	0.500	1	04/26/2019 23:46	WG1272563
Di-isopropyl ether	U			0.0924	0.500	1	04/26/2019 23:46	WG1272563
Ethylbenzene	U			0.158	0.500	1	04/26/2019 23:46	WG1272563
Hexachloro-1,3-butadiene	U			0.157	1.00	1	04/26/2019 23:46	WG1272563
2-Hexanone	U			0.757	5.00	1	04/26/2019 23:46	WG1272563
n-Hexane	U			0.305	5.00	1	04/26/2019 23:46	WG1272563
Iodomethane	U			0.377	10.0	1	04/26/2019 23:46	WG1272563
Isopropylbenzene	U			0.126	0.500	1	04/26/2019 23:46	WG1272563
p-Isopropyltoluene	U			0.138	0.500	1	04/26/2019 23:46	WG1272563
2-Butanone (MEK)	U			1.28	5.00	1	04/26/2019 23:46	WG1272563

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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		
Methylene Chloride	U		1.07	2.50	1	04/26/2019 23:46	WG1272563	¹ Cp	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 23:46	WG1272563	² Tc	
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 23:46	WG1272563	³ Ss	
Naphthalene	U		0.174	2.50	1	04/26/2019 23:46	WG1272563		
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 23:46	WG1272563		
Styrene	U		0.117	0.500	1	04/26/2019 23:46	WG1272563		
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 23:46	WG1272563		
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 23:46	WG1272563		
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 23:46	WG1272563		
Tetrachloroethene	U		0.199	0.500	1	04/26/2019 23:46	WG1272563		
Toluene	U		0.412	0.500	1	04/26/2019 23:46	WG1272563	⁶ Qc	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 23:46	WG1272563		
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 23:46	WG1272563		
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 23:46	WG1272563		
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 23:46	WG1272563		
Trichloroethene	0.370	J	J	0.153	0.500	1	04/26/2019 23:46	WG1272563	
Trichlorofluoromethane	U	UJ	JO	0.130	2.50	1	04/26/2019 23:46	WG1272563	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 23:46	WG1272563		
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 23:46	WG1272563		
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 23:46	WG1272563		
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 23:46	WG1272563		
Vinyl acetate	U		0.645	5.00	1	04/26/2019 23:46	WG1272563		
Vinyl chloride	7.16	J	JO	0.118	0.500	1	04/26/2019 23:46	WG1272563	
Xylenes, Total	U		0.316	1.50	1	04/26/2019 23:46	WG1272563		
(S) Toluene-d8	95.8			80.0-120		04/26/2019 23:46	WG1272563		
(S) 4-Bromofluorobenzene	98.9			77.0-126		04/26/2019 23:46	WG1272563		
(S) 1,2-Dichloroethane-d4	93.2			70.0-130		04/26/2019 23:46	WG1272563		

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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	05/01/2019 13:14	WG1274492
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	94.5			78.0-120		05/01/2019 13:14	WG1274492

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	2.62	<u>JJ0</u>	1.05	25.0	1	04/26/2019 17:47	WG1272563
Acrylonitrile	U		0.873	5.00	1	04/26/2019 17:47	WG1272563
Benzene	U		0.0896	0.500	1	04/26/2019 17:47	WG1272563
Bromobenzene	U		0.133	0.500	1	04/26/2019 17:47	WG1272563
Bromodichloromethane	U		0.0800	0.500	1	04/26/2019 17:47	WG1272563
Bromoform	U		0.145	0.500	1	04/26/2019 17:47	WG1272563
Bromomethane	U	<u>UJ</u> <u>J0</u>	0.157	2.50	1	04/26/2019 17:47	WG1272563
n-Butylbenzene	U		0.143	0.500	1	04/26/2019 17:47	WG1272563
sec-Butylbenzene	U		0.134	0.500	1	04/26/2019 17:47	WG1272563
tert-Butylbenzene	U		0.183	0.500	1	04/26/2019 17:47	WG1272563
Carbon disulfide	U		0.101	0.500	1	04/26/2019 17:47	WG1272563
Carbon tetrachloride	U		0.159	0.500	1	04/26/2019 17:47	WG1272563
Chlorobenzene	U		0.140	0.500	1	04/26/2019 17:47	WG1272563
Chlorodibromomethane	U		0.128	0.500	1	04/26/2019 17:47	WG1272563
Chloroethane	U	<u>UJ</u> <u>J0</u>	0.141	2.50	1	04/26/2019 17:47	WG1272563
Chloroform	U		0.0860	0.500	1	04/26/2019 17:47	WG1272563
Chloromethane	U		0.153	1.25	1	04/26/2019 17:47	WG1272563
2-Chlorotoluene	U		0.111	0.500	1	04/26/2019 17:47	WG1272563
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2019 17:47	WG1272563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/26/2019 17:47	WG1272563
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2019 17:47	WG1272563
Dibromomethane	U		0.117	0.500	1	04/26/2019 17:47	WG1272563
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2019 17:47	WG1272563
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2019 17:47	WG1272563
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2019 17:47	WG1272563
Dichlorodifluoromethane	U		0.127	2.50	1	04/26/2019 17:47	WG1272563
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2019 17:47	WG1272563
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2019 17:47	WG1272563
1,1-Dichloroethene	U		0.188	0.500	1	04/26/2019 17:47	WG1272563
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/26/2019 17:47	WG1272563
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/26/2019 17:47	WG1272563
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2019 17:47	WG1272563
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2019 17:47	WG1272563
1,3-Dichloropropane	U		0.147	1.00	1	04/26/2019 17:47	WG1272563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2019 17:47	WG1272563
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2019 17:47	WG1272563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2019 17:47	WG1272563
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2019 17:47	WG1272563
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2019 17:47	WG1272563
Ethylbenzene	U		0.158	0.500	1	04/26/2019 17:47	WG1272563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2019 17:47	WG1272563
2-Hexanone	U	<u>J3</u>	0.757	5.00	1	04/26/2019 17:47	WG1272563
n-Hexane	U		0.305	5.00	1	04/26/2019 17:47	WG1272563
Iodomethane	U		0.377	10.0	1	04/26/2019 17:47	WG1272563
Isopropylbenzene	U		0.126	0.500	1	04/26/2019 17:47	WG1272563
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2019 17:47	WG1272563
2-Butanone (MEK)	U		1.28	5.00	1	04/26/2019 17:47	WG1272563

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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		
Methylene Chloride	U		1.07	2.50	1	04/26/2019 17:47	WG1272563	¹ Cp	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/26/2019 17:47	WG1272563	² Tc	
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2019 17:47	WG1272563	³ Ss	
Naphthalene	U		0.174	2.50	1	04/26/2019 17:47	WG1272563		
n-Propylbenzene	U		0.162	0.500	1	04/26/2019 17:47	WG1272563		
Styrene	U		0.117	0.500	1	04/26/2019 17:47	WG1272563		
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2019 17:47	WG1272563		
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2019 17:47	WG1272563		
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2019 17:47	WG1272563		
Tetrachloroethene	U		0.199	0.500	1	04/26/2019 17:47	WG1272563		
Toluene	U		0.412	0.500	1	04/26/2019 17:47	WG1272563	⁶ Qc	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2019 17:47	WG1272563		
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2019 17:47	WG1272563		
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2019 17:47	WG1272563	⁷ GI	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2019 17:47	WG1272563		
Trichloroethene	U		0.153	0.500	1	04/26/2019 17:47	WG1272563		
Trichlorofluoromethane	U	UJ	JO	0.130	2.50	1	04/26/2019 17:47	WG1272563	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2019 17:47	WG1272563		
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2019 17:47	WG1272563		
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2019 17:47	WG1272563		
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2019 17:47	WG1272563		
Vinyl acetate	U		0.645	5.00	1	04/26/2019 17:47	WG1272563		
Vinyl chloride	U	UJ	JO	0.118	0.500	1	04/26/2019 17:47	WG1272563	
Xylenes, Total	U		0.316	1.50	1	04/26/2019 17:47	WG1272563		
(S) Toluene-d8	101			80.0-120		04/26/2019 17:47	WG1272563		
(S) 4-Bromofluorobenzene	106			77.0-126		04/26/2019 17:47	WG1272563		
(S) 1,2-Dichloroethane-d4	92.9			70.0-130		04/26/2019 17:47	WG1272563	⁸ AI	

JC 5/13/19

ANALYTICAL REPORT

May 08, 2019

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

PES Environmental, Inc.- WA

Sample Delivery Group: L1093242
Samples Received: 04/27/2019
Project Number: 1413.001.05.601
Description: American Linen
Site: AMERICAN LINEN
Report To: Brian O'Neal/Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

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



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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



			Collected by K. Zygas	Collected date/time 04/26/19 09:30	Received date/time 04/27/19 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1275809	1	05/04/19 20:24	05/04/19 20:24	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1272741	1	04/27/19 13:06	04/27/19 13:06	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1273394	1	04/29/19 19:55	04/29/19 19:55	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271844	1	04/30/19 09:36	05/07/19 23:12	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1274492	1	05/01/19 15:18	05/01/19 15:18	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1275531	1	05/03/19 15:01	05/03/19 15:01	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1272804	1	04/27/19 16:01	04/27/19 16:01	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1275623	1	05/03/19 13:59	05/03/19 13:59	JHH	Mt. Juliet, TN
			Collected by K. Zygas	Collected date/time 04/26/19 11:40	Received date/time 04/27/19 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1275809	1	05/04/19 20:31	05/04/19 20:31	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1272741	1	04/27/19 13:21	04/27/19 13:21	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1273394	1	04/29/19 20:10	04/29/19 20:10	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271844	1	04/30/19 09:36	05/07/19 23:17	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1274492	1	05/01/19 15:38	05/01/19 15:38	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1275531	1	05/03/19 15:15	05/03/19 15:15	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1272804	1	04/27/19 16:21	04/27/19 16:21	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1275623	1	05/03/19 14:19	05/03/19 14:19	JHH	Mt. Juliet, TN
			Collected by K. Zygas	Collected date/time 04/26/19 13:30	Received date/time 04/27/19 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1272804	1	04/27/19 16:41	04/27/19 16:41	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1275623	50	05/03/19 16:20	05/03/19 16:20	DWR	Mt. Juliet, TN
			Collected by K. Zygas	Collected date/time 04/26/19 00:00	Received date/time 04/27/19 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1274492	1	05/01/19 13:35	05/01/19 13:35	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1272804	1	04/27/19 11:51	04/27/19 11:51	BMB	Mt. Juliet, TN
			Collected by K. Zygas	Collected date/time 04/26/19 08:15	Received date/time 04/27/19 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1274492	1	05/01/19 15:59	05/01/19 15:59	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1272804	1	04/27/19 17:01	04/27/19 17:01	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1275623	1	05/03/19 14:59	05/03/19 14:59	DWR	Mt. Juliet, TN
			Collected by K. Zygas	Collected date/time 04/26/19 09:10	Received date/time 04/27/19 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1275809	1	05/04/19 20:39	05/04/19 20:39	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1272741	1	04/27/19 14:05	04/27/19 14:05	ST	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1272741	5	04/27/19 14:58	04/27/19 14:58	ST	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-178-042619 L1093242-06 GW

Collected by
K. Zygas
04/26/19 09:10
Received date/time
04/27/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9060A	WG1273394	1	04/29/19 20:23	04/29/19 20:23	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1271844	1	04/30/19 09:36	05/07/19 23:21	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1274492	1	05/01/19 16:20	05/01/19 16:20	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1275531	1	05/03/19 15:20	05/03/19 15:20	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1272804	1	04/27/19 17:21	04/27/19 17:21	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1275623	1	05/03/19 15:19	05/03/19 15:19	DWR	Mt. Juliet, TN

MW-159-042519 L1093242-07 GW

Collected by
K. Zygas
04/26/19 11:05
Received date/time
04/27/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1274492	1	05/01/19 16:40	05/01/19 16:40	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1272804	1	04/27/19 17:41	04/27/19 17:41	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1275623	1	05/03/19 15:39	05/03/19 15:39	DWR	Mt. Juliet, TN

MW-9-042619 L1093242-08 GW

Collected by
K. Zygas
04/26/19 13:00
Received date/time
04/27/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1274492	1	05/01/19 17:01	05/01/19 17:01	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1272804	1	04/27/19 18:01	04/27/19 18:01	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1275623	1	05/03/19 16:00	05/03/19 16:00	DWR	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Sample Handling and Receiving

The following analysis were performed from an unpreserved, insufficiently or inadequately preserved sample.

<u>Lab Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
L1093242-06	MW-178-042619	9060A

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ SC



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	267000		2710	20000	1	05/04/2019 20:24	WG1275809

Sample Narrative:

L1093242-01 WG1275809: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	23600		51.9	1000	1	04/27/2019 13:06	WG1272741
Nitrate	U		22.7	100	1	04/27/2019 13:06	WG1272741
Sulfate	15900		77.4	5000	1	04/27/2019 13:06	WG1272741

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	3320		102	1000	1	04/29/2019 19:55	WG1273394

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	3420		15.0	100	1	05/07/2019 23:12	WG1271844
Manganese	695		0.250	5.00	1	05/07/2019 23:12	WG1271844

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	05/01/2019 15:18	WG1274492
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	92.9			78.0-120		05/01/2019 15:18	WG1274492

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	42.1		0.287	0.678	1	05/03/2019 15:01	WG1275531
Ethane	U		0.296	1.29	1	05/03/2019 15:01	WG1275531
Ethene	U		0.422	1.27	1	05/03/2019 15:01	WG1275531

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	1.65	J	1.05	25.0	1	04/27/2019 16:01	WG1272804
Acrylonitrile	U		0.873	5.00	1	04/27/2019 16:01	WG1272804
Benzene	U		0.0896	0.500	1	04/27/2019 16:01	WG1272804
Bromobenzene	U		0.133	0.500	1	04/27/2019 16:01	WG1272804
Bromodichloromethane	U		0.0800	0.500	1	04/27/2019 16:01	WG1272804
Bromochloromethane	U		0.145	0.500	1	04/27/2019 16:01	WG1272804
Bromoform	U		0.186	0.500	1	04/27/2019 16:01	WG1272804
Bromomethane	U	JO	0.157	2.50	1	04/27/2019 16:01	WG1272804
n-Butylbenzene	U		0.143	0.500	1	04/27/2019 16:01	WG1272804
sec-Butylbenzene	U		0.134	0.500	1	04/27/2019 16:01	WG1272804
tert-Butylbenzene	U		0.183	0.500	1	04/27/2019 16:01	WG1272804
Carbon disulfide	0.142	J	0.101	0.500	1	04/27/2019 16:01	WG1272804
Carbon tetrachloride	U		0.159	0.500	1	04/27/2019 16:01	WG1272804



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	04/27/2019 16:01	WG1272804	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/27/2019 16:01	WG1272804	² Tc
Chloroethane	U	JO	0.141	2.50	1	05/03/2019 13:59	WG1275623	³ Ss
Chloroform	U		0.0860	0.500	1	04/27/2019 16:01	WG1272804	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/27/2019 16:01	WG1272804	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/27/2019 16:01	WG1272804	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/27/2019 16:01	WG1272804	⁷ GI
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/27/2019 16:01	WG1272804	⁸ AI
1,2-Dibromoethane	U		0.193	0.500	1	04/27/2019 16:01	WG1272804	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/27/2019 16:01	WG1272804	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/27/2019 16:01	WG1272804	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/27/2019 16:01	WG1272804	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/27/2019 16:01	WG1272804	
Dichlorodifluoromethane	U		0.127	2.50	1	04/27/2019 16:01	WG1272804	
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 13:59	WG1275623	
1,2-Dichloroethane	U		0.108	0.500	1	04/27/2019 16:01	WG1272804	
1,1-Dichloroethene	U		0.188	0.500	1	04/27/2019 16:01	WG1272804	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/27/2019 16:01	WG1272804	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/27/2019 16:01	WG1272804	
1,2-Dichloropropane	U		0.190	0.500	1	04/27/2019 16:01	WG1272804	
1,1-Dichloropropene	U		0.128	0.500	1	04/27/2019 16:01	WG1272804	
1,3-Dichloropropane	U		0.147	1.00	1	04/27/2019 16:01	WG1272804	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/27/2019 16:01	WG1272804	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/27/2019 16:01	WG1272804	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/27/2019 16:01	WG1272804	
2,2-Dichloropropane	U		0.0929	0.500	1	04/27/2019 16:01	WG1272804	
Di-isopropyl ether	U		0.0924	0.500	1	04/27/2019 16:01	WG1272804	
Ethylbenzene	U		0.158	0.500	1	04/27/2019 16:01	WG1272804	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/27/2019 16:01	WG1272804	
2-Hexanone	U		0.757	5.00	1	04/27/2019 16:01	WG1272804	
n-Hexane	U		0.305	5.00	1	04/27/2019 16:01	WG1272804	
Iodomethane	U		0.377	10.0	1	04/27/2019 16:01	WG1272804	
Isopropylbenzene	U		0.126	0.500	1	04/27/2019 16:01	WG1272804	
p-Isopropyltoluene	U		0.138	0.500	1	04/27/2019 16:01	WG1272804	
2-Butanone (MEK)	U		1.28	5.00	1	04/27/2019 16:01	WG1272804	
Methylene Chloride	U		1.07	2.50	1	04/27/2019 16:01	WG1272804	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/27/2019 16:01	WG1272804	
Methyl tert-butyl ether	U		0.102	0.500	1	04/27/2019 16:01	WG1272804	
Naphthalene	U		0.174	2.50	1	04/27/2019 16:01	WG1272804	
n-Propylbenzene	U		0.162	0.500	1	04/27/2019 16:01	WG1272804	
Styrene	U		0.117	0.500	1	04/27/2019 16:01	WG1272804	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/27/2019 16:01	WG1272804	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/27/2019 16:01	WG1272804	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/27/2019 16:01	WG1272804	
Tetrachloroethene	U		0.199	0.500	1	04/27/2019 16:01	WG1272804	
Toluene	U		0.412	0.500	1	04/27/2019 16:01	WG1272804	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/27/2019 16:01	WG1272804	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/27/2019 16:01	WG1272804	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 13:59	WG1275623	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/27/2019 16:01	WG1272804	
Trichloroethene	U		0.153	0.500	1	04/27/2019 16:01	WG1272804	
Trichlorofluoromethane	U	JO	0.130	2.50	1	04/27/2019 16:01	WG1272804	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/27/2019 16:01	WG1272804	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/27/2019 16:01	WG1272804	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/27/2019 16:01	WG1272804	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/27/2019 16:01	WG1272804	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Vinyl acetate	U		0.645	5.00	1	04/27/2019 16:01	WG1272804	¹ Cp
Vinyl chloride	U	<u>J0</u>	0.118	0.500	1	04/27/2019 16:01	WG1272804	² Tc
Xylenes, Total	U		0.316	1.50	1	04/27/2019 16:01	WG1272804	³ Ss
(S) Toluene-d8	97.8			80.0-120		04/27/2019 16:01	WG1272804	
(S) Toluene-d8	96.7			80.0-120		05/03/2019 13:59	WG1275623	
(S) 4-Bromofluorobenzene	105			77.0-126		04/27/2019 16:01	WG1272804	⁴ Cn
(S) 4-Bromofluorobenzene	104			77.0-126		05/03/2019 13:59	WG1275623	
(S) 1,2-Dichloroethane-d4	96.8			70.0-130		04/27/2019 16:01	WG1272804	⁵ Sr
(S) 1,2-Dichloroethane-d4	94.6			70.0-130		05/03/2019 13:59	WG1275623	⁶ Qc

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	287000		2710	20000	1	05/04/2019 20:31	WG1275809

Sample Narrative:

L1093242-02 WG1275809: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	44700		51.9	1000	1	04/27/2019 13:21	WG1272741
Nitrate	U		22.7	100	1	04/27/2019 13:21	WG1272741
Sulfate	73900		77.4	5000	1	04/27/2019 13:21	WG1272741

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	5290		102	1000	1	04/29/2019 20:10	WG1273394

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	5730		15.0	100	1	05/07/2019 23:17	WG1271844
Manganese	318		0.250	5.00	1	05/07/2019 23:17	WG1271844

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	05/01/2019 15:38	WG1274492
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	93.9			78.0-120		05/01/2019 15:38	WG1274492

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	455		0.287	0.678	1	05/03/2019 15:15	WG1275531
Ethane	1.73		0.296	1.29	1	05/03/2019 15:15	WG1275531
Ethene	5.24		0.422	1.27	1	05/03/2019 15:15	WG1275531

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	3.01	J	1.05	25.0	1	04/27/2019 16:21	WG1272804
Acrylonitrile	U		0.873	5.00	1	04/27/2019 16:21	WG1272804
Benzene	U		0.0896	0.500	1	04/27/2019 16:21	WG1272804
Bromobenzene	U		0.133	0.500	1	04/27/2019 16:21	WG1272804
Bromodichloromethane	U		0.0800	0.500	1	04/27/2019 16:21	WG1272804
Bromochloromethane	U		0.145	0.500	1	04/27/2019 16:21	WG1272804
Bromoform	U		0.186	0.500	1	04/27/2019 16:21	WG1272804
Bromomethane	U	JO	0.157	2.50	1	04/27/2019 16:21	WG1272804
n-Butylbenzene	U		0.143	0.500	1	04/27/2019 16:21	WG1272804
sec-Butylbenzene	U		0.134	0.500	1	04/27/2019 16:21	WG1272804
tert-Butylbenzene	U		0.183	0.500	1	04/27/2019 16:21	WG1272804
Carbon disulfide	0.365	J	0.101	0.500	1	04/27/2019 16:21	WG1272804
Carbon tetrachloride	U		0.159	0.500	1	04/27/2019 16:21	WG1272804



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	04/27/2019 16:21	WG1272804	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/27/2019 16:21	WG1272804	² Tc
Chloroethane	U	JO	0.141	2.50	1	05/03/2019 14:19	WG1275623	³ Ss
Chloroform	U		0.0860	0.500	1	04/27/2019 16:21	WG1272804	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/27/2019 16:21	WG1272804	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/27/2019 16:21	WG1272804	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/27/2019 16:21	WG1272804	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/27/2019 16:21	WG1272804	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	04/27/2019 16:21	WG1272804	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/27/2019 16:21	WG1272804	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/27/2019 16:21	WG1272804	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/27/2019 16:21	WG1272804	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/27/2019 16:21	WG1272804	
Dichlorodifluoromethane	U		0.127	2.50	1	04/27/2019 16:21	WG1272804	
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 14:19	WG1275623	
1,2-Dichloroethane	U		0.108	0.500	1	04/27/2019 16:21	WG1272804	
1,1-Dichloroethene	U		0.188	0.500	1	04/27/2019 16:21	WG1272804	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/27/2019 16:21	WG1272804	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/27/2019 16:21	WG1272804	
1,2-Dichloropropane	U		0.190	0.500	1	04/27/2019 16:21	WG1272804	
1,1-Dichloropropene	U		0.128	0.500	1	04/27/2019 16:21	WG1272804	
1,3-Dichloropropane	U		0.147	1.00	1	04/27/2019 16:21	WG1272804	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/27/2019 16:21	WG1272804	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/27/2019 16:21	WG1272804	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/27/2019 16:21	WG1272804	
2,2-Dichloropropane	U		0.0929	0.500	1	04/27/2019 16:21	WG1272804	
Di-isopropyl ether	U		0.0924	0.500	1	04/27/2019 16:21	WG1272804	
Ethylbenzene	U		0.158	0.500	1	04/27/2019 16:21	WG1272804	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/27/2019 16:21	WG1272804	
2-Hexanone	U		0.757	5.00	1	04/27/2019 16:21	WG1272804	
n-Hexane	U		0.305	5.00	1	04/27/2019 16:21	WG1272804	
Iodomethane	U		0.377	10.0	1	04/27/2019 16:21	WG1272804	
Isopropylbenzene	U		0.126	0.500	1	04/27/2019 16:21	WG1272804	
p-Isopropyltoluene	U		0.138	0.500	1	04/27/2019 16:21	WG1272804	
2-Butanone (MEK)	U		1.28	5.00	1	04/27/2019 16:21	WG1272804	
Methylene Chloride	U		1.07	2.50	1	04/27/2019 16:21	WG1272804	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/27/2019 16:21	WG1272804	
Methyl tert-butyl ether	U		0.102	0.500	1	04/27/2019 16:21	WG1272804	
Naphthalene	U		0.174	2.50	1	04/27/2019 16:21	WG1272804	
n-Propylbenzene	U		0.162	0.500	1	04/27/2019 16:21	WG1272804	
Styrene	U		0.117	0.500	1	04/27/2019 16:21	WG1272804	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/27/2019 16:21	WG1272804	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/27/2019 16:21	WG1272804	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/27/2019 16:21	WG1272804	
Tetrachloroethene	U		0.199	0.500	1	04/27/2019 16:21	WG1272804	
Toluene	U		0.412	0.500	1	04/27/2019 16:21	WG1272804	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/27/2019 16:21	WG1272804	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/27/2019 16:21	WG1272804	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 14:19	WG1275623	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/27/2019 16:21	WG1272804	
Trichloroethene	U		0.153	0.500	1	04/27/2019 16:21	WG1272804	
Trichlorofluoromethane	U	JO	0.130	2.50	1	04/27/2019 16:21	WG1272804	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/27/2019 16:21	WG1272804	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/27/2019 16:21	WG1272804	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/27/2019 16:21	WG1272804	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/27/2019 16:21	WG1272804	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Vinyl acetate	U		0.645	5.00	1	04/27/2019 16:21	WG1272804	¹ Cp
Vinyl chloride	0.392	<u>J JO</u>	0.118	0.500	1	04/27/2019 16:21	WG1272804	² Tc
Xylenes, Total	U		0.316	1.50	1	04/27/2019 16:21	WG1272804	³ Ss
(S) Toluene-d8	99.1			80.0-120		04/27/2019 16:21	WG1272804	
(S) Toluene-d8	99.5			80.0-120		05/03/2019 14:19	WG1275623	
(S) 4-Bromofluorobenzene	104			77.0-126		04/27/2019 16:21	WG1272804	
(S) 4-Bromofluorobenzene	106			77.0-126		05/03/2019 14:19	WG1275623	
(S) 1,2-Dichloroethane-d4	96.0			70.0-130		04/27/2019 16:21	WG1272804	
(S) 1,2-Dichloroethane-d4	94.9			70.0-130		05/03/2019 14:19	WG1275623	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



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	04/27/2019 16:41	WG1272804	¹ Cp
Acrylonitrile	U		0.873	5.00	1	04/27/2019 16:41	WG1272804	² Tc
Benzene	0.291	J	0.0896	0.500	1	04/27/2019 16:41	WG1272804	³ Ss
Bromobenzene	U		0.133	0.500	1	04/27/2019 16:41	WG1272804	⁴ Cn
Bromodichloromethane	U		0.0800	0.500	1	04/27/2019 16:41	WG1272804	⁵ Sr
Bromoform	U		0.145	0.500	1	04/27/2019 16:41	WG1272804	⁶ Qc
Bromomethane	U	JO	0.157	2.50	1	04/27/2019 16:41	WG1272804	⁷ Gl
n-Butylbenzene	U		0.143	0.500	1	04/27/2019 16:41	WG1272804	⁸ Al
sec-Butylbenzene	U		0.134	0.500	1	04/27/2019 16:41	WG1272804	⁹ Sc
tert-Butylbenzene	U		0.183	0.500	1	04/27/2019 16:41	WG1272804	
Carbon disulfide	U		0.101	0.500	1	04/27/2019 16:41	WG1272804	
Carbon tetrachloride	U		0.159	0.500	1	04/27/2019 16:41	WG1272804	
Chlorobenzene	U		0.140	0.500	1	04/27/2019 16:41	WG1272804	
Chlorodibromomethane	U		0.128	0.500	1	04/27/2019 16:41	WG1272804	
Chloroethane	U	JO	7.05	125	50	05/03/2019 16:20	WG1275623	
Chloroform	U		0.0860	0.500	1	04/27/2019 16:41	WG1272804	
Chloromethane	U		0.153	1.25	1	04/27/2019 16:41	WG1272804	
2-Chlorotoluene	U		0.111	0.500	1	04/27/2019 16:41	WG1272804	
4-Chlorotoluene	U		0.0972	0.500	1	04/27/2019 16:41	WG1272804	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/27/2019 16:41	WG1272804	
1,2-Dibromoethane	U		0.193	0.500	1	04/27/2019 16:41	WG1272804	
Dibromomethane	U		0.117	0.500	1	04/27/2019 16:41	WG1272804	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/27/2019 16:41	WG1272804	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/27/2019 16:41	WG1272804	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/27/2019 16:41	WG1272804	
Dichlorodifluoromethane	U		0.127	2.50	1	04/27/2019 16:41	WG1272804	
1,1-Dichloroethane	U		5.70	25.0	50	05/03/2019 16:20	WG1275623	
1,2-Dichloroethane	U		0.108	0.500	1	04/27/2019 16:41	WG1272804	
1,1-Dichloroethene	7.03		0.188	0.500	1	04/27/2019 16:41	WG1272804	
cis-1,2-Dichloroethene	710		4.66	25.0	50	05/03/2019 16:20	WG1275623	
trans-1,2-Dichloroethene	5.59		0.152	0.500	1	04/27/2019 16:41	WG1272804	
1,2-Dichloropropane	U		0.190	0.500	1	04/27/2019 16:41	WG1272804	
1,1-Dichloropropene	U		0.128	0.500	1	04/27/2019 16:41	WG1272804	
1,3-Dichloropropane	U		0.147	1.00	1	04/27/2019 16:41	WG1272804	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/27/2019 16:41	WG1272804	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/27/2019 16:41	WG1272804	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/27/2019 16:41	WG1272804	
2,2-Dichloropropane	U		0.0929	0.500	1	04/27/2019 16:41	WG1272804	
Di-isopropyl ether	U		0.0924	0.500	1	04/27/2019 16:41	WG1272804	
Ethylbenzene	U		0.158	0.500	1	04/27/2019 16:41	WG1272804	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/27/2019 16:41	WG1272804	
2-Hexanone	U		0.757	5.00	1	04/27/2019 16:41	WG1272804	
n-Hexane	U		0.305	5.00	1	04/27/2019 16:41	WG1272804	
Iodomethane	U		0.377	10.0	1	04/27/2019 16:41	WG1272804	
Isopropylbenzene	U		0.126	0.500	1	04/27/2019 16:41	WG1272804	
p-Isopropyltoluene	U		0.138	0.500	1	04/27/2019 16:41	WG1272804	
2-Butanone (MEK)	U		1.28	5.00	1	04/27/2019 16:41	WG1272804	
Methylene Chloride	U		1.07	2.50	1	04/27/2019 16:41	WG1272804	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/27/2019 16:41	WG1272804	
Methyl tert-butyl ether	U		0.102	0.500	1	04/27/2019 16:41	WG1272804	
Naphthalene	U		0.174	2.50	1	04/27/2019 16:41	WG1272804	
n-Propylbenzene	U		0.162	0.500	1	04/27/2019 16:41	WG1272804	
Styrene	U		0.117	0.500	1	04/27/2019 16:41	WG1272804	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/27/2019 16:41	WG1272804	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/27/2019 16:41	WG1272804	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/27/2019 16:41	WG1272804	¹ Cp
Tetrachloroethene	1500		9.95	25.0	50	05/03/2019 16:20	WG1275623	² Tc
Toluene	U		0.412	0.500	1	04/27/2019 16:41	WG1272804	³ Ss
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/27/2019 16:41	WG1272804	⁴ Cn
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/27/2019 16:41	WG1272804	⁵ Sr
1,1,1-Trichloroethane	U		4.70	25.0	50	05/03/2019 16:20	WG1275623	⁶ Qc
1,1,2-Trichloroethane	U		0.186	0.500	1	04/27/2019 16:41	WG1272804	⁷ Gl
Trichloroethene	613		7.65	25.0	50	05/03/2019 16:20	WG1275623	⁸ Al
Trichlorofluoromethane	U	JO	0.130	2.50	1	04/27/2019 16:41	WG1272804	⁹ Sc
1,2,3-Trichloropropane	U		0.247	2.50	1	04/27/2019 16:41	WG1272804	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/27/2019 16:41	WG1272804	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/27/2019 16:41	WG1272804	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/27/2019 16:41	WG1272804	
Vinyl acetate	U		0.645	5.00	1	04/27/2019 16:41	WG1272804	
Vinyl chloride	0.900	JO	0.118	0.500	1	04/27/2019 16:41	WG1272804	
Xylenes, Total	U		0.316	1.50	1	04/27/2019 16:41	WG1272804	
(S) Toluene-d8	99.1			80.0-120		04/27/2019 16:41	WG1272804	
(S) Toluene-d8	98.7			80.0-120		05/03/2019 16:20	WG1275623	
(S) 4-Bromofluorobenzene	104			77.0-126		04/27/2019 16:41	WG1272804	
(S) 4-Bromofluorobenzene	101			77.0-126		05/03/2019 16:20	WG1275623	
(S) 1,2-Dichloroethane-d4	92.1			70.0-130		04/27/2019 16:41	WG1272804	
(S) 1,2-Dichloroethane-d4	98.9			70.0-130		05/03/2019 16:20	WG1275623	

Sample Narrative:

L1093242-03 WG1272804, WG1275623: Not all compounds reportable at lower dilution.

L1093242-03 WG1272804, WG1275623: Cannot be re-analyzed at lower dilution due to high levels of target analytes.



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	05/01/2019 13:35	WG1274492
(S)-a,a,a-Trifluorotoluene(FID)	92.8			78.0-120		05/01/2019 13:35	WG1274492

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
Acetone	1.43	J	1.05	25.0	1	04/27/2019 11:51	WG1272804
Acrylonitrile	U		0.873	5.00	1	04/27/2019 11:51	WG1272804
Benzene	U		0.0896	0.500	1	04/27/2019 11:51	WG1272804
Bromobenzene	U		0.133	0.500	1	04/27/2019 11:51	WG1272804
Bromodichloromethane	U		0.0800	0.500	1	04/27/2019 11:51	WG1272804
Bromoform	U		0.145	0.500	1	04/27/2019 11:51	WG1272804
Bromomethane	U	J0	0.157	2.50	1	04/27/2019 11:51	WG1272804
n-Butylbenzene	U		0.143	0.500	1	04/27/2019 11:51	WG1272804
sec-Butylbenzene	U		0.134	0.500	1	04/27/2019 11:51	WG1272804
tert-Butylbenzene	U		0.183	0.500	1	04/27/2019 11:51	WG1272804
Carbon disulfide	U		0.101	0.500	1	04/27/2019 11:51	WG1272804
Carbon tetrachloride	U		0.159	0.500	1	04/27/2019 11:51	WG1272804
Chlorobenzene	U		0.140	0.500	1	04/27/2019 11:51	WG1272804
Chlorodibromomethane	U		0.128	0.500	1	04/27/2019 11:51	WG1272804
Chloroethane	U	J0	0.141	2.50	1	04/27/2019 11:51	WG1272804
Chloroform	U		0.0860	0.500	1	04/27/2019 11:51	WG1272804
Chloromethane	U		0.153	1.25	1	04/27/2019 11:51	WG1272804
2-Chlorotoluene	U		0.111	0.500	1	04/27/2019 11:51	WG1272804
4-Chlorotoluene	U		0.0972	0.500	1	04/27/2019 11:51	WG1272804
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/27/2019 11:51	WG1272804
1,2-Dibromoethane	U		0.193	0.500	1	04/27/2019 11:51	WG1272804
Dibromomethane	U		0.117	0.500	1	04/27/2019 11:51	WG1272804
1,2-Dichlorobenzene	U		0.101	0.500	1	04/27/2019 11:51	WG1272804
1,3-Dichlorobenzene	U		0.130	0.500	1	04/27/2019 11:51	WG1272804
1,4-Dichlorobenzene	U		0.121	0.500	1	04/27/2019 11:51	WG1272804
Dichlorodifluoromethane	U		0.127	2.50	1	04/27/2019 11:51	WG1272804
1,1-Dichloroethane	U		0.114	0.500	1	04/27/2019 11:51	WG1272804
1,2-Dichloroethane	U		0.108	0.500	1	04/27/2019 11:51	WG1272804
1,1-Dichloroethene	U		0.188	0.500	1	04/27/2019 11:51	WG1272804
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/27/2019 11:51	WG1272804
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/27/2019 11:51	WG1272804
1,2-Dichloropropane	U		0.190	0.500	1	04/27/2019 11:51	WG1272804
1,1-Dichloropropene	U		0.128	0.500	1	04/27/2019 11:51	WG1272804
1,3-Dichloropropane	U		0.147	1.00	1	04/27/2019 11:51	WG1272804
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/27/2019 11:51	WG1272804
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/27/2019 11:51	WG1272804
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/27/2019 11:51	WG1272804
2,2-Dichloropropane	U		0.0929	0.500	1	04/27/2019 11:51	WG1272804
Di-isopropyl ether	U		0.0924	0.500	1	04/27/2019 11:51	WG1272804
Ethylbenzene	U		0.158	0.500	1	04/27/2019 11:51	WG1272804
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/27/2019 11:51	WG1272804
2-Hexanone	U		0.757	5.00	1	04/27/2019 11:51	WG1272804
n-Hexane	U		0.305	5.00	1	04/27/2019 11:51	WG1272804
Iodomethane	U		0.377	10.0	1	04/27/2019 11:51	WG1272804
Isopropylbenzene	U		0.126	0.500	1	04/27/2019 11:51	WG1272804
p-Isopropyltoluene	U		0.138	0.500	1	04/27/2019 11:51	WG1272804
2-Butanone (MEK)	U		1.28	5.00	1	04/27/2019 11:51	WG1272804



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	04/27/2019 11:51	WG1272804	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/27/2019 11:51	WG1272804	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	04/27/2019 11:51	WG1272804	³ Ss
Naphthalene	U		0.174	2.50	1	04/27/2019 11:51	WG1272804	
n-Propylbenzene	U		0.162	0.500	1	04/27/2019 11:51	WG1272804	
Styrene	U		0.117	0.500	1	04/27/2019 11:51	WG1272804	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/27/2019 11:51	WG1272804	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/27/2019 11:51	WG1272804	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/27/2019 11:51	WG1272804	
Tetrachloroethene	U		0.199	0.500	1	04/27/2019 11:51	WG1272804	
Toluene	U		0.412	0.500	1	04/27/2019 11:51	WG1272804	⁶ Qc
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/27/2019 11:51	WG1272804	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/27/2019 11:51	WG1272804	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/27/2019 11:51	WG1272804	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/27/2019 11:51	WG1272804	
Trichloroethene	U		0.153	0.500	1	04/27/2019 11:51	WG1272804	
Trichlorofluoromethane	U	¹⁰	0.130	2.50	1	04/27/2019 11:51	WG1272804	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/27/2019 11:51	WG1272804	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/27/2019 11:51	WG1272804	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/27/2019 11:51	WG1272804	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/27/2019 11:51	WG1272804	
Vinyl acetate	U		0.645	5.00	1	04/27/2019 11:51	WG1272804	
Vinyl chloride	U	¹⁰	0.118	0.500	1	04/27/2019 11:51	WG1272804	
Xylenes, Total	U		0.316	1.50	1	04/27/2019 11:51	WG1272804	
(S) Toluene-d8	106			80.0-120		04/27/2019 11:51	WG1272804	
(S) 4-Bromofluorobenzene	106			77.0-126		04/27/2019 11:51	WG1272804	
(S) 1,2-Dichloroethane-d4	104			70.0-130		04/27/2019 11:51	WG1272804	



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	05/01/2019 15:59	WG1274492
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	93.2			78.0-120		05/01/2019 15:59	WG1274492

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
Acetone	1.65	J	1.05	25.0	1	04/27/2019 17:01	WG1272804
Acrylonitrile	U		0.873	5.00	1	04/27/2019 17:01	WG1272804
Benzene	0.193	J	0.0896	0.500	1	04/27/2019 17:01	WG1272804
Bromobenzene	U		0.133	0.500	1	04/27/2019 17:01	WG1272804
Bromodichloromethane	U		0.0800	0.500	1	04/27/2019 17:01	WG1272804
Bromoform	U		0.145	0.500	1	04/27/2019 17:01	WG1272804
Bromomethane	U	J0	0.157	2.50	1	04/27/2019 17:01	WG1272804
n-Butylbenzene	U		0.143	0.500	1	04/27/2019 17:01	WG1272804
sec-Butylbenzene	U		0.134	0.500	1	04/27/2019 17:01	WG1272804
tert-Butylbenzene	U		0.183	0.500	1	04/27/2019 17:01	WG1272804
Carbon disulfide	U		0.101	0.500	1	04/27/2019 17:01	WG1272804
Carbon tetrachloride	U		0.159	0.500	1	04/27/2019 17:01	WG1272804
Chlorobenzene	U		0.140	0.500	1	04/27/2019 17:01	WG1272804
Chlorodibromomethane	U		0.128	0.500	1	04/27/2019 17:01	WG1272804
Chloroethane	U	J0	0.141	2.50	1	05/03/2019 14:59	WG1275623
Chloroform	U		0.0860	0.500	1	04/27/2019 17:01	WG1272804
Chloromethane	U		0.153	1.25	1	04/27/2019 17:01	WG1272804
2-Chlorotoluene	U		0.111	0.500	1	04/27/2019 17:01	WG1272804
4-Chlorotoluene	U		0.0972	0.500	1	04/27/2019 17:01	WG1272804
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/27/2019 17:01	WG1272804
1,2-Dibromoethane	U		0.193	0.500	1	04/27/2019 17:01	WG1272804
Dibromomethane	U		0.117	0.500	1	04/27/2019 17:01	WG1272804
1,2-Dichlorobenzene	U		0.101	0.500	1	04/27/2019 17:01	WG1272804
1,3-Dichlorobenzene	U		0.130	0.500	1	04/27/2019 17:01	WG1272804
1,4-Dichlorobenzene	U		0.121	0.500	1	04/27/2019 17:01	WG1272804
Dichlorodifluoromethane	U		0.127	2.50	1	04/27/2019 17:01	WG1272804
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 14:59	WG1275623
1,2-Dichloroethane	U		0.108	0.500	1	04/27/2019 17:01	WG1272804
1,1-Dichloroethene	U		0.188	0.500	1	04/27/2019 17:01	WG1272804
cis-1,2-Dichloroethene	1.12		0.0933	0.500	1	05/03/2019 14:59	WG1275623
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/27/2019 17:01	WG1272804
1,2-Dichloropropane	U		0.190	0.500	1	04/27/2019 17:01	WG1272804
1,1-Dichloropropene	U		0.128	0.500	1	04/27/2019 17:01	WG1272804
1,3-Dichloropropane	U		0.147	1.00	1	04/27/2019 17:01	WG1272804
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/27/2019 17:01	WG1272804
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/27/2019 17:01	WG1272804
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/27/2019 17:01	WG1272804
2,2-Dichloropropane	U		0.0929	0.500	1	04/27/2019 17:01	WG1272804
Di-isopropyl ether	U		0.0924	0.500	1	04/27/2019 17:01	WG1272804
Ethylbenzene	U		0.158	0.500	1	04/27/2019 17:01	WG1272804
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/27/2019 17:01	WG1272804
2-Hexanone	U		0.757	5.00	1	04/27/2019 17:01	WG1272804
n-Hexane	U		0.305	5.00	1	04/27/2019 17:01	WG1272804
Iodomethane	U		0.377	10.0	1	04/27/2019 17:01	WG1272804
Isopropylbenzene	U		0.126	0.500	1	04/27/2019 17:01	WG1272804
p-Isopropyltoluene	U		0.138	0.500	1	04/27/2019 17:01	WG1272804
2-Butanone (MEK)	U		1.28	5.00	1	04/27/2019 17:01	WG1272804



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	04/27/2019 17:01	WG1272804	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/27/2019 17:01	WG1272804	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	04/27/2019 17:01	WG1272804	³ Ss
Naphthalene	U		0.174	2.50	1	04/27/2019 17:01	WG1272804	⁴ Cn
n-Propylbenzene	U		0.162	0.500	1	04/27/2019 17:01	WG1272804	⁵ Sr
Styrene	U		0.117	0.500	1	04/27/2019 17:01	WG1272804	⁶ Qc
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/27/2019 17:01	WG1272804	⁷ Gl
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/27/2019 17:01	WG1272804	⁸ Al
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/27/2019 17:01	WG1272804	⁹ Sc
Tetrachloroethene	U		0.199	0.500	1	05/03/2019 14:59	WG1275623	
Toluene	U		0.412	0.500	1	04/27/2019 17:01	WG1272804	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/27/2019 17:01	WG1272804	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/27/2019 17:01	WG1272804	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 14:59	WG1275623	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/27/2019 17:01	WG1272804	
Trichloroethene	U		0.153	0.500	1	05/03/2019 14:59	WG1275623	
Trichlorofluoromethane	U	^{J0}	0.130	2.50	1	04/27/2019 17:01	WG1272804	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/27/2019 17:01	WG1272804	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/27/2019 17:01	WG1272804	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/27/2019 17:01	WG1272804	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/27/2019 17:01	WG1272804	
Vinyl acetate	U		0.645	5.00	1	04/27/2019 17:01	WG1272804	
Vinyl chloride	1.04	^{J0}	0.118	0.500	1	04/27/2019 17:01	WG1272804	
Xylenes, Total	U		0.316	1.50	1	04/27/2019 17:01	WG1272804	
(S) Toluene-d8	99.1			80.0-120		04/27/2019 17:01	WG1272804	
(S) Toluene-d8	98.3			80.0-120		05/03/2019 14:59	WG1275623	
(S) 4-Bromofluorobenzene	107			77.0-126		04/27/2019 17:01	WG1272804	
(S) 4-Bromofluorobenzene	105			77.0-126		05/03/2019 14:59	WG1275623	
(S) 1,2-Dichloroethane-d4	94.7			70.0-130		04/27/2019 17:01	WG1272804	
(S) 1,2-Dichloroethane-d4	93.6			70.0-130		05/03/2019 14:59	WG1275623	



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	161000		2710	20000	1	05/04/2019 20:39	WG1275809

Sample Narrative:

L1093242-06 WG1275809: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	17100		51.9	1000	1	04/27/2019 14:05	WG1272741
Nitrate	U		22.7	100	1	04/27/2019 14:05	WG1272741
Sulfate	175000		387	25000	5	04/27/2019 14:58	WG1272741

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	5190		102	1000	1	04/29/2019 20:23	WG1273394

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	2910		15.0	100	1	05/07/2019 23:21	WG1271844
Manganese	420		0.250	5.00	1	05/07/2019 23:21	WG1271844

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	05/01/2019 16:20	WG1274492
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	93.7			78.0-120		05/01/2019 16:20	WG1274492

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	1600		0.287	0.678	1	05/03/2019 15:20	WG1275531
Ethane	U		0.296	1.29	1	05/03/2019 15:20	WG1275531
Ethene	3.65		0.422	1.27	1	05/03/2019 15:20	WG1275531

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	1.70	J	1.05	25.0	1	04/27/2019 17:21	WG1272804
Acrylonitrile	U		0.873	5.00	1	04/27/2019 17:21	WG1272804
Benzene	U		0.0896	0.500	1	04/27/2019 17:21	WG1272804
Bromobenzene	U		0.133	0.500	1	04/27/2019 17:21	WG1272804
Bromodichloromethane	U		0.0800	0.500	1	04/27/2019 17:21	WG1272804
Bromochloromethane	U		0.145	0.500	1	04/27/2019 17:21	WG1272804
Bromoform	U		0.186	0.500	1	04/27/2019 17:21	WG1272804
Bromomethane	U	JO	0.157	2.50	1	04/27/2019 17:21	WG1272804
n-Butylbenzene	U		0.143	0.500	1	04/27/2019 17:21	WG1272804
sec-Butylbenzene	U		0.134	0.500	1	04/27/2019 17:21	WG1272804
tert-Butylbenzene	U		0.183	0.500	1	04/27/2019 17:21	WG1272804
Carbon disulfide	0.198	J	0.101	0.500	1	04/27/2019 17:21	WG1272804
Carbon tetrachloride	U		0.159	0.500	1	04/27/2019 17:21	WG1272804



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	04/27/2019 17:21	WG1272804	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/27/2019 17:21	WG1272804	² Tc
Chloroethane	U	JO	0.141	2.50	1	05/03/2019 15:19	WG1275623	³ Ss
Chloroform	U		0.0860	0.500	1	04/27/2019 17:21	WG1272804	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/27/2019 17:21	WG1272804	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/27/2019 17:21	WG1272804	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/27/2019 17:21	WG1272804	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/27/2019 17:21	WG1272804	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	04/27/2019 17:21	WG1272804	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/27/2019 17:21	WG1272804	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/27/2019 17:21	WG1272804	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/27/2019 17:21	WG1272804	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/27/2019 17:21	WG1272804	
Dichlorodifluoromethane	U		0.127	2.50	1	04/27/2019 17:21	WG1272804	
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 15:19	WG1275623	
1,2-Dichloroethane	U		0.108	0.500	1	04/27/2019 17:21	WG1272804	
1,1-Dichloroethene	U		0.188	0.500	1	04/27/2019 17:21	WG1272804	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/03/2019 15:19	WG1275623	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/27/2019 17:21	WG1272804	
1,2-Dichloropropane	U		0.190	0.500	1	04/27/2019 17:21	WG1272804	
1,1-Dichloropropene	U		0.128	0.500	1	04/27/2019 17:21	WG1272804	
1,3-Dichloropropane	U		0.147	1.00	1	04/27/2019 17:21	WG1272804	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/27/2019 17:21	WG1272804	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/27/2019 17:21	WG1272804	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/27/2019 17:21	WG1272804	
2,2-Dichloropropane	U		0.0929	0.500	1	04/27/2019 17:21	WG1272804	
Di-isopropyl ether	U		0.0924	0.500	1	04/27/2019 17:21	WG1272804	
Ethylbenzene	U		0.158	0.500	1	04/27/2019 17:21	WG1272804	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/27/2019 17:21	WG1272804	
2-Hexanone	U		0.757	5.00	1	04/27/2019 17:21	WG1272804	
n-Hexane	U		0.305	5.00	1	04/27/2019 17:21	WG1272804	
Iodomethane	U		0.377	10.0	1	04/27/2019 17:21	WG1272804	
Isopropylbenzene	U		0.126	0.500	1	04/27/2019 17:21	WG1272804	
p-Isopropyltoluene	U		0.138	0.500	1	04/27/2019 17:21	WG1272804	
2-Butanone (MEK)	U		1.28	5.00	1	04/27/2019 17:21	WG1272804	
Methylene Chloride	U		1.07	2.50	1	04/27/2019 17:21	WG1272804	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/27/2019 17:21	WG1272804	
Methyl tert-butyl ether	U		0.102	0.500	1	04/27/2019 17:21	WG1272804	
Naphthalene	U		0.174	2.50	1	04/27/2019 17:21	WG1272804	
n-Propylbenzene	U		0.162	0.500	1	04/27/2019 17:21	WG1272804	
Styrene	U		0.117	0.500	1	04/27/2019 17:21	WG1272804	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/27/2019 17:21	WG1272804	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/27/2019 17:21	WG1272804	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/27/2019 17:21	WG1272804	
Tetrachloroethene	U		0.199	0.500	1	05/03/2019 15:19	WG1275623	
Toluene	U		0.412	0.500	1	04/27/2019 17:21	WG1272804	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/27/2019 17:21	WG1272804	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/27/2019 17:21	WG1272804	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 15:19	WG1275623	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/27/2019 17:21	WG1272804	
Trichloroethene	U		0.153	0.500	1	04/27/2019 17:21	WG1272804	
Trichlorofluoromethane	U	JO	0.130	2.50	1	04/27/2019 17:21	WG1272804	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/27/2019 17:21	WG1272804	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/27/2019 17:21	WG1272804	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/27/2019 17:21	WG1272804	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/27/2019 17:21	WG1272804	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Vinyl acetate	U		0.645	5.00	1	04/27/2019 17:21	WG1272804	¹ Cp
Vinyl chloride	0.277	<u>J JO</u>	0.118	0.500	1	04/27/2019 17:21	WG1272804	² Tc
Xylenes, Total	U		0.316	1.50	1	04/27/2019 17:21	WG1272804	³ Ss
(S) Toluene-d8	97.2			80.0-120		04/27/2019 17:21	WG1272804	
(S) Toluene-d8	98.2			80.0-120		05/03/2019 15:19	WG1275623	
(S) 4-Bromofluorobenzene	103			77.0-126		04/27/2019 17:21	WG1272804	
(S) 4-Bromofluorobenzene	99.8			77.0-126		05/03/2019 15:19	WG1275623	
(S) 1,2-Dichloroethane-d4	96.1			70.0-130		04/27/2019 17:21	WG1272804	
(S) 1,2-Dichloroethane-d4	99.3			70.0-130		05/03/2019 15:19	WG1275623	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



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	05/01/2019 16:40	WG1274492
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	93.8			78.0-120		05/01/2019 16:40	WG1274492

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
Acetone	U		1.05	25.0	1	04/27/2019 17:41	WG1272804
Acrylonitrile	U		0.873	5.00	1	04/27/2019 17:41	WG1272804
Benzene	0.179	J	0.0896	0.500	1	04/27/2019 17:41	WG1272804
Bromobenzene	U		0.133	0.500	1	04/27/2019 17:41	WG1272804
Bromodichloromethane	U		0.0800	0.500	1	04/27/2019 17:41	WG1272804
Bromoform	U		0.145	0.500	1	04/27/2019 17:41	WG1272804
Bromomethane	U	JO	0.157	2.50	1	04/27/2019 17:41	WG1272804
n-Butylbenzene	U		0.143	0.500	1	04/27/2019 17:41	WG1272804
sec-Butylbenzene	U		0.134	0.500	1	04/27/2019 17:41	WG1272804
tert-Butylbenzene	U		0.183	0.500	1	04/27/2019 17:41	WG1272804
Carbon disulfide	U		0.101	0.500	1	04/27/2019 17:41	WG1272804
Carbon tetrachloride	U		0.159	0.500	1	04/27/2019 17:41	WG1272804
Chlorobenzene	U		0.140	0.500	1	04/27/2019 17:41	WG1272804
Chlorodibromomethane	U		0.128	0.500	1	04/27/2019 17:41	WG1272804
Chloroethane	U	JO	0.141	2.50	1	05/03/2019 15:39	WG1275623
Chloroform	U		0.0860	0.500	1	04/27/2019 17:41	WG1272804
Chloromethane	U		0.153	1.25	1	04/27/2019 17:41	WG1272804
2-Chlorotoluene	U		0.111	0.500	1	04/27/2019 17:41	WG1272804
4-Chlorotoluene	U		0.0972	0.500	1	04/27/2019 17:41	WG1272804
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/27/2019 17:41	WG1272804
1,2-Dibromoethane	U		0.193	0.500	1	04/27/2019 17:41	WG1272804
Dibromomethane	U		0.117	0.500	1	04/27/2019 17:41	WG1272804
1,2-Dichlorobenzene	U		0.101	0.500	1	04/27/2019 17:41	WG1272804
1,3-Dichlorobenzene	U		0.130	0.500	1	04/27/2019 17:41	WG1272804
1,4-Dichlorobenzene	U		0.121	0.500	1	04/27/2019 17:41	WG1272804
Dichlorodifluoromethane	U		0.127	2.50	1	04/27/2019 17:41	WG1272804
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 15:39	WG1275623
1,2-Dichloroethane	U		0.108	0.500	1	04/27/2019 17:41	WG1272804
1,1-Dichloroethene	U		0.188	0.500	1	04/27/2019 17:41	WG1272804
cis-1,2-Dichloroethene	1.23		0.0933	0.500	1	05/03/2019 15:39	WG1275623
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/27/2019 17:41	WG1272804
1,2-Dichloropropane	U		0.190	0.500	1	04/27/2019 17:41	WG1272804
1,1-Dichloropropene	U		0.128	0.500	1	04/27/2019 17:41	WG1272804
1,3-Dichloropropane	U		0.147	1.00	1	04/27/2019 17:41	WG1272804
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/27/2019 17:41	WG1272804
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/27/2019 17:41	WG1272804
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/27/2019 17:41	WG1272804
2,2-Dichloropropane	U		0.0929	0.500	1	04/27/2019 17:41	WG1272804
Di-isopropyl ether	U		0.0924	0.500	1	04/27/2019 17:41	WG1272804
Ethylbenzene	U		0.158	0.500	1	04/27/2019 17:41	WG1272804
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/27/2019 17:41	WG1272804
2-Hexanone	U		0.757	5.00	1	04/27/2019 17:41	WG1272804
n-Hexane	U		0.305	5.00	1	04/27/2019 17:41	WG1272804
Iodomethane	U		0.377	10.0	1	04/27/2019 17:41	WG1272804
Isopropylbenzene	U		0.126	0.500	1	04/27/2019 17:41	WG1272804
p-Isopropyltoluene	U		0.138	0.500	1	04/27/2019 17:41	WG1272804
2-Butanone (MEK)	U		1.28	5.00	1	04/27/2019 17:41	WG1272804



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	04/27/2019 17:41	WG1272804	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/27/2019 17:41	WG1272804	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	04/27/2019 17:41	WG1272804	³ Ss
Naphthalene	U		0.174	2.50	1	04/27/2019 17:41	WG1272804	⁴ Cn
n-Propylbenzene	U		0.162	0.500	1	04/27/2019 17:41	WG1272804	⁵ Sr
Styrene	U		0.117	0.500	1	04/27/2019 17:41	WG1272804	⁶ Qc
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/27/2019 17:41	WG1272804	⁷ Gl
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/27/2019 17:41	WG1272804	⁸ Al
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/27/2019 17:41	WG1272804	⁹ Sc
Tetrachloroethene	U		0.199	0.500	1	04/27/2019 17:41	WG1272804	
Toluene	U		0.412	0.500	1	04/27/2019 17:41	WG1272804	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/27/2019 17:41	WG1272804	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/27/2019 17:41	WG1272804	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 15:39	WG1275623	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/27/2019 17:41	WG1272804	
Trichloroethene	U		0.153	0.500	1	04/27/2019 17:41	WG1272804	
Trichlorofluoromethane	U	^{JO}	0.130	2.50	1	04/27/2019 17:41	WG1272804	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/27/2019 17:41	WG1272804	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/27/2019 17:41	WG1272804	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/27/2019 17:41	WG1272804	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/27/2019 17:41	WG1272804	
Vinyl acetate	U		0.645	5.00	1	04/27/2019 17:41	WG1272804	
Vinyl chloride	1.03	^{JO}	0.118	0.500	1	04/27/2019 17:41	WG1272804	
Xylenes, Total	U		0.316	1.50	1	04/27/2019 17:41	WG1272804	
(S) Toluene-d8	99.9			80.0-120		04/27/2019 17:41	WG1272804	
(S) Toluene-d8	102			80.0-120		05/03/2019 15:39	WG1275623	
(S) 4-Bromofluorobenzene	106			77.0-126		04/27/2019 17:41	WG1272804	
(S) 4-Bromofluorobenzene	103			77.0-126		05/03/2019 15:39	WG1275623	
(S) 1,2-Dichloroethane-d4	96.5			70.0-130		04/27/2019 17:41	WG1272804	
(S) 1,2-Dichloroethane-d4	102			70.0-130		05/03/2019 15:39	WG1275623	



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	121		31.6	100	1	05/01/2019 17:01	WG1274492
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	94.3			78.0-120		05/01/2019 17:01	WG1274492

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	04/27/2019 18:01	WG1272804
Acrylonitrile	U		0.873	5.00	1	04/27/2019 18:01	WG1272804
Benzene	U		0.0896	0.500	1	04/27/2019 18:01	WG1272804
Bromobenzene	U		0.133	0.500	1	04/27/2019 18:01	WG1272804
Bromodichloromethane	U		0.0800	0.500	1	04/27/2019 18:01	WG1272804
Bromoform	U		0.145	0.500	1	04/27/2019 18:01	WG1272804
Bromomethane	U	J0	0.157	2.50	1	04/27/2019 18:01	WG1272804
n-Butylbenzene	U		0.143	0.500	1	04/27/2019 18:01	WG1272804
sec-Butylbenzene	U		0.134	0.500	1	04/27/2019 18:01	WG1272804
tert-Butylbenzene	U		0.183	0.500	1	04/27/2019 18:01	WG1272804
Carbon disulfide	U		0.101	0.500	1	04/27/2019 18:01	WG1272804
Carbon tetrachloride	U		0.159	0.500	1	04/27/2019 18:01	WG1272804
Chlorobenzene	U		0.140	0.500	1	04/27/2019 18:01	WG1272804
Chlorodibromomethane	U		0.128	0.500	1	04/27/2019 18:01	WG1272804
Chloroethane	U	J0	0.141	2.50	1	05/03/2019 16:00	WG1275623
Chloroform	U		0.0860	0.500	1	04/27/2019 18:01	WG1272804
Chloromethane	U		0.153	1.25	1	04/27/2019 18:01	WG1272804
2-Chlorotoluene	U		0.111	0.500	1	04/27/2019 18:01	WG1272804
4-Chlorotoluene	U		0.0972	0.500	1	04/27/2019 18:01	WG1272804
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/27/2019 18:01	WG1272804
1,2-Dibromoethane	U		0.193	0.500	1	04/27/2019 18:01	WG1272804
Dibromomethane	U		0.117	0.500	1	04/27/2019 18:01	WG1272804
1,2-Dichlorobenzene	U		0.101	0.500	1	04/27/2019 18:01	WG1272804
1,3-Dichlorobenzene	U		0.130	0.500	1	04/27/2019 18:01	WG1272804
1,4-Dichlorobenzene	U		0.121	0.500	1	04/27/2019 18:01	WG1272804
Dichlorodifluoromethane	U		0.127	2.50	1	04/27/2019 18:01	WG1272804
1,1-Dichloroethane	1.57		0.114	0.500	1	05/03/2019 16:00	WG1275623
1,2-Dichloroethane	0.229	J	0.108	0.500	1	04/27/2019 18:01	WG1272804
1,1-Dichloroethene	0.893		0.188	0.500	1	04/27/2019 18:01	WG1272804
cis-1,2-Dichloroethene	75.1		0.0933	0.500	1	04/27/2019 18:01	WG1272804
trans-1,2-Dichloroethene	0.261	J	0.152	0.500	1	04/27/2019 18:01	WG1272804
1,2-Dichloropropane	0.878		0.190	0.500	1	04/27/2019 18:01	WG1272804
1,1-Dichloropropene	U		0.128	0.500	1	04/27/2019 18:01	WG1272804
1,3-Dichloropropane	U		0.147	1.00	1	04/27/2019 18:01	WG1272804
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/27/2019 18:01	WG1272804
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/27/2019 18:01	WG1272804
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/27/2019 18:01	WG1272804
2,2-Dichloropropane	U		0.0929	0.500	1	04/27/2019 18:01	WG1272804
Di-isopropyl ether	U		0.0924	0.500	1	04/27/2019 18:01	WG1272804
Ethylbenzene	U		0.158	0.500	1	04/27/2019 18:01	WG1272804
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/27/2019 18:01	WG1272804
2-Hexanone	U		0.757	5.00	1	04/27/2019 18:01	WG1272804
n-Hexane	U		0.305	5.00	1	04/27/2019 18:01	WG1272804
Iodomethane	U		0.377	10.0	1	04/27/2019 18:01	WG1272804
Isopropylbenzene	U		0.126	0.500	1	04/27/2019 18:01	WG1272804
p-Isopropyltoluene	U		0.138	0.500	1	04/27/2019 18:01	WG1272804
2-Butanone (MEK)	U		1.28	5.00	1	04/27/2019 18:01	WG1272804



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	04/27/2019 18:01	WG1272804	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/27/2019 18:01	WG1272804	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	04/27/2019 18:01	WG1272804	³ Ss
Naphthalene	U		0.174	2.50	1	04/27/2019 18:01	WG1272804	⁴ Cn
n-Propylbenzene	U		0.162	0.500	1	04/27/2019 18:01	WG1272804	⁵ Sr
Styrene	U		0.117	0.500	1	04/27/2019 18:01	WG1272804	⁶ Qc
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/27/2019 18:01	WG1272804	⁷ Gl
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/27/2019 18:01	WG1272804	⁸ Al
1,1,2-Trichlorotrifluoroethane	0.465	J	0.164	0.500	1	04/27/2019 18:01	WG1272804	⁹ Sc
Tetrachloroethene	157		0.199	0.500	1	04/27/2019 18:01	WG1272804	
Toluene	U		0.412	0.500	1	04/27/2019 18:01	WG1272804	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/27/2019 18:01	WG1272804	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/27/2019 18:01	WG1272804	
1,1,1-Trichloroethane	0.298	J	0.0940	0.500	1	05/03/2019 16:00	WG1275623	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/27/2019 18:01	WG1272804	
Trichloroethene	45.2		0.153	0.500	1	04/27/2019 18:01	WG1272804	
Trichlorofluoromethane	U	JO	0.130	2.50	1	04/27/2019 18:01	WG1272804	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/27/2019 18:01	WG1272804	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/27/2019 18:01	WG1272804	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/27/2019 18:01	WG1272804	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/27/2019 18:01	WG1272804	
Vinyl acetate	U		0.645	5.00	1	04/27/2019 18:01	WG1272804	
Vinyl chloride	0.861	JO	0.118	0.500	1	04/27/2019 18:01	WG1272804	
Xylenes, Total	U		0.316	1.50	1	04/27/2019 18:01	WG1272804	
(S) Toluene-d8	98.3			80.0-120		04/27/2019 18:01	WG1272804	
(S) Toluene-d8	98.2			80.0-120		05/03/2019 16:00	WG1275623	
(S) 4-Bromofluorobenzene	103			77.0-126		04/27/2019 18:01	WG1272804	
(S) 4-Bromofluorobenzene	103			77.0-126		05/03/2019 16:00	WG1275623	
(S) 1,2-Dichloroethane-d4	93.7			70.0-130		04/27/2019 18:01	WG1272804	
(S) 1,2-Dichloroethane-d4	94.9			70.0-130		05/03/2019 16:00	WG1275623	

L1093242-01,02,06

Method Blank (MB)

(MB) R3408496-1 05/04/19 20:03

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Alkalinity	3110	J	2710	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1093241-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1093241-01 05/04/19 20:10 • (DUP) R3408496-2 05/04/19 20:17

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Alkalinity	167000	167000	1	0.0717		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

L1093601-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1093601-01 05/04/19 22:54 • (DUP) R3408496-4 05/04/19 23:01

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Alkalinity	274000	267000	1	2.59		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3408496-3 05/04/19 21:17

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Alkalinity	100000	102000	102	85.0-115	

Sample Narrative:

LCS: Endpoint pH 4.5

WG1272741

Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

L1093242-01,02,06

Method Blank (MB)

(MB) R3406167-1 04/27/19 09:15

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1093227-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1093227-01 04/27/19 11:05 • (DUP) R3406167-3 04/27/19 11:19

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Chloride	19900	19900	1	0.288		15
Nitrate	996	1000	1	0.351		15
Sulfate	16500	16500	1	0.152		15

L1091939-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1091939-06 04/27/19 16:12 • (DUP) R3406167-6 04/27/19 16:27

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Chloride	5350	5330	1	0.491		15
Nitrate	80.2	80.4	1	0.249	J	15
Sulfate	14200	14200	1	0.0457		15

Laboratory Control Sample (LCS)

(LCS) R3406167-2 04/27/19 09:30

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Chloride	40000	40200	100	80.0-120	
Nitrate	8000	8250	103	80.0-120	
Sulfate	40000	40900	102	80.0-120	



L1093242-01,02,06

L1093227-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1093227-01 04/27/19 11:05 • (MS) R3406167-4 04/27/19 11:34 • (MSD) R3406167-5 04/27/19 11:49

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	MSD Qualifier	RPD	RPD Limits
Chloride	50000	19900	69200	69400	98.7	99.1	1	80.0-120			0.273	15
Nitrate	5000	996	5960	5990	99.3	99.8	1	80.0-120			0.387	15
Sulfate	50000	16500	66400	66500	99.7	100	1	80.0-120			0.258	15

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1091939-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L1091939-06 04/27/19 16:12 • (MS) R3406167-7 04/27/19 16:42

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>
Chloride	50000	5350	55300	99.9	1	80.0-120	
Nitrate	5000	80.2	5020	98.7	1	80.0-120	
Sulfate	50000	14200	64300	100	1	80.0-120	

WG1273394

Wet Chemistry by Method 9060A

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.



L1093242-01,02,06

Method Blank (MB)

(MB) R3406585-1 04/29/19 11:52

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	284	J	102	1000

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1092770-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1092770-01 04/29/19 13:19 • (DUP) R3406585-3 04/29/19 13:32

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
TOC (Total Organic Carbon)	8240	8150	1	1.15		20

L1093209-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1093209-03 04/29/19 18:04 • (DUP) R3406585-6 04/29/19 18:17

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
TOC (Total Organic Carbon)	4670	4640	1	0.623		20

⁷Gl⁸Al

Laboratory Control Sample (LCS)

(LCS) R3406585-2 04/29/19 12:30

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
TOC (Total Organic Carbon)	75000	77000	103	85.0-115	

L1092865-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1092865-02 04/29/19 16:29 • (MS) R3406585-4 04/29/19 16:45 • (MSD) R3406585-5 04/29/19 17:00

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
TOC (Total Organic Carbon)	50000	2150	50400	50000	96.5	95.7	1	80.0-120			0.836	20

⁸Al

L1093242-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1093242-06 04/29/19 20:23 • (MS) R3406585-7 04/29/19 20:39 • (MSD) R3406585-8 04/29/19 20:55

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
TOC (Total Organic Carbon)	50000	5190	51100	51100	91.8	91.9	1	80.0-120			0.137	20

⁹Sc

ACCOUNT:

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1413.001.05.601

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L1093242-01,02,06

Method Blank (MB)

(MB) R3409057-1 05/07/19 20:17

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Iron	87.3	J	15.0	100
Manganese	1.84	J	0.250	5.00

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3409057-2 05/07/19 20:22 • (LCSD) R3409057-3 05/07/19 20:26

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 %
Iron	500	449	441	89.8	88.1	80.0-120			1.93	20
Manganese	50.0	45.5	44.5	91.0	89.1	80.0-120			2.10	20

L1092880-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1092880-01 05/07/19 20:31 • (MS) R3409057-5 05/07/19 20:40 • (MSD) R3409057-6 05/07/19 20:45

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Iron	500	12400	13900	13700	286	251	1	75.0-125	V	V	1.26	20
Manganese	50.0	393	440	449	93.4	111	1	75.0-125			2.01	20

WG1274492

Volatile Organic Compounds (GC) by Method NWTPHGX

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3407469-3 05/01/19 12:30

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	93.6			78.0-120

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3407469-1 05/01/19 11:25 • (LCSD) R3407469-2 05/01/19 11:46

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
Gasoline Range Organics-NWTPH	5500	5370	5440	97.6	98.9	70.0-124			1.33	20
(S) a,a,a-Trifluorotoluene(FID)			104	105		78.0-120				

L1092880-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1092880-01 05/01/19 14:16 • (MS) R3407469-4 05/01/19 19:05 • (MSD) R3407469-5 05/01/19 19:25

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	U	6290	5510	114	100	1	10.0-155			13.2	21
(S) a,a,a-Trifluorotoluene(FID)				109	107			78.0-120				

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Method Blank (MB)

(MB) R3408007-1 05/03/19 14:19

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al

L1092924-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1092924-01 05/03/19 14:23 • (DUP) R3408007-2 05/03/19 15:18

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Methane	U	0.000	1	0.000		20
Ethane	U	0.000	1	0.000		20
Ethene	U	0.000	1	0.000		20

⁹Sc

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

(LCS) R3408007-3 05/03/19 15:40 • (LCSD) R3408007-4 05/03/19 15:45

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 %
Methane	67.8	74.4	70.2	110	104	85.0-115			5.87	20
Ethane	129	110	110	85.6	85.2	85.0-115			0.467	20
Ethene	127	110	109	86.3	85.9	85.0-115			0.532	20



L1093242-01,02,03,04,05,06,07,08

Method Blank (MB)

(MB) R3407791-2 04/27/19 09:45

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	
Acetone	U		1.05	25.0	¹ Cp
Acrylonitrile	U		0.873	5.00	² Tc
Benzene	U		0.0896	0.500	³ Ss
Bromobenzene	U		0.133	0.500	⁴ Cn
Bromochloromethane	U		0.145	0.500	⁵ Sr
Bromodichloromethane	U		0.0800	0.500	⁶ Qc
Bromoform	U		0.186	0.500	⁷ Gl
Bromomethane	U		0.157	2.50	⁸ Al
n-Butylbenzene	U		0.143	0.500	⁹ Sc
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	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	
1,1-Dichloropropene	U		0.128	0.500	
1,3-Dichloropropene	U		0.147	1.00	
cis-1,3-Dichloropropene	U		0.0976	0.500	
trans-1,3-Dichloropropene	U		0.222	0.500	
2,2-Dichloropropane	U		0.0929	0.500	
2-Hexanone	U		0.757	5.00	

[L1093242-01,02,03,04,05,06,07,08](#)

Method Blank (MB)

(MB) R3407791-2 04/27/19 09:45

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	
n-Hexane	U		0.305	5.00	¹ Cp
Di-isopropyl ether	U		0.0924	0.500	² Tc
Iodomethane	U		0.377	10.0	³ Ss
Ethylbenzene	U		0.158	0.500	⁴ Cn
Hexachloro-1,3-butadiene	0.368	J	0.157	1.00	⁵ Sr
Isopropylbenzene	U		0.126	0.500	⁶ Qc
p-Isopropyltoluene	U		0.138	0.500	⁷ Gl
2-Butanone (MEK)	U		1.28	5.00	⁸ Al
Methylene Chloride	U		1.07	2.50	⁹ Sc
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	
Methyl tert-butyl ether	U		0.102	0.500	
n-Propylbenzene	U		0.162	0.500	
Styrene	U		0.117	0.500	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	
Naphthalene	U		0.174	2.50	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	
Tetrachloroethene	U		0.199	0.500	
Vinyl acetate	U		0.645	5.00	
1,1,2-Trichlorotrifluoroethane	U		0.164	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	
Toluene	U		0.412	0.500	
Trichloroethene	U		0.153	0.500	
Trichlorofluoromethane	U		0.130	2.50	
1,2,3-Trichloropropane	U		0.247	2.50	
1,2,3-Trimethylbenzene	U		0.0739	0.500	
1,2,4-Trimethylbenzene	U		0.123	0.500	
1,3,5-Trimethylbenzene	U		0.124	0.500	
Vinyl chloride	U		0.118	0.500	
Xylenes, Total	U		0.316	1.50	
(S) Toluene-d8	99.8		80.0-120		
(S) 4-Bromofluorobenzene	105		77.0-126		
(S) 1,2-Dichloroethane-d4	90.5		70.0-130		

[L1093242-01,02,03,04,05,06,07,08](#)

Laboratory Control Sample (LCS)

(LCS) R3407791-1 04/27/19 09:05

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Bromochloromethane	25.0	23.5	93.9	76.0-122	¹ Cp
Acetone	125	137	110	19.0-160	² Tc
Acrylonitrile	125	151	121	55.0-149	³ Ss
Bromobenzene	25.0	22.6	90.5	73.0-121	⁴ Cn
Bromodichloromethane	25.0	21.8	87.2	75.0-120	⁵ Sr
Bromoform	25.0	26.8	107	68.0-132	⁶ Qc
Bromomethane	25.0	18.3	73.3	10.0-160	⁷ Gl
trans-1,4-Dichloro-2-butene	25.0	21.1	84.3	33.0-144	⁸ Al
n-Butylbenzene	25.0	21.1	84.4	73.0-125	⁹ Sc
sec-Butylbenzene	25.0	22.7	90.8	75.0-125	
tert-Butylbenzene	25.0	23.5	94.0	76.0-124	
Carbon disulfide	25.0	27.0	108	61.0-128	
2-Hexanone	125	141	113	67.0-149	
Carbon tetrachloride	25.0	23.2	92.6	68.0-126	
Chlorobenzene	25.0	23.4	93.5	80.0-121	
n-Hexane	25.0	24.5	98.2	57.0-133	
Chlorodibromomethane	25.0	23.5	94.1	77.0-125	
Iodomethane	125	131	105	33.0-147	
Chloroethane	25.0	17.3	69.4	47.0-150	
Chloroform	25.0	21.7	86.8	73.0-120	
Chloromethane	25.0	25.5	102	41.0-142	
2-Chlorotoluene	25.0	22.3	89.1	76.0-123	
Benzene	25.0	25.4	102	70.0-123	
4-Chlorotoluene	25.0	22.5	89.8	75.0-122	
1,2-Dibromo-3-Chloropropane	25.0	27.0	108	58.0-134	
1,2-Dibromoethane	25.0	23.1	92.4	80.0-122	
Dibromomethane	25.0	22.2	88.7	80.0-120	
1,2-Dichlorobenzene	25.0	23.1	92.3	79.0-121	
1,3-Dichlorobenzene	25.0	22.7	90.6	79.0-120	
1,4-Dichlorobenzene	25.0	21.8	87.1	79.0-120	
Dichlorodifluoromethane	25.0	29.6	118	51.0-149	
1,1-Dichloroethane	25.0	23.7	94.8	70.0-126	
1,2-Dichloroethane	25.0	20.3	81.1	70.0-128	
1,1-Dichloroethene	25.0	24.2	96.8	71.0-124	
cis-1,2-Dichloroethene	25.0	23.7	94.8	73.0-120	
trans-1,2-Dichloroethene	25.0	24.3	97.1	73.0-120	
1,2-Dichloropropane	25.0	25.4	102	77.0-125	
1,1-Dichloropropene	25.0	24.2	96.8	74.0-126	
1,3-Dichloropropane	25.0	24.0	96.1	80.0-120	
cis-1,3-Dichloropropene	25.0	23.0	92.2	80.0-123	

[L1093242-01,02,03,04,05,06,07,08](#)

Laboratory Control Sample (LCS)

(LCS) R3407791-1 04/27/19 09:05

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Vinyl acetate	125	68.1	54.5	11.0-160	
trans-1,3-Dichloropropene	25.0	22.0	88.2	78.0-124	
2,2-Dichloropropane	25.0	27.2	109	58.0-130	
Di-isopropyl ether	25.0	26.5	106	58.0-138	
Hexachloro-1,3-butadiene	25.0	28.0	112	54.0-138	
Isopropylbenzene	25.0	25.0	100	76.0-127	
p-Isopropyltoluene	25.0	23.0	92.1	76.0-125	
2-Butanone (MEK)	125	155	124	44.0-160	
Methylene Chloride	25.0	24.1	96.2	67.0-120	
4-Methyl-2-pentanone (MIBK)	125	138	110	68.0-142	
Methyl tert-butyl ether	25.0	23.6	94.2	68.0-125	
Ethylbenzene	25.0	24.0	96.0	79.0-123	
n-Propylbenzene	25.0	22.0	88.0	77.0-124	
Styrene	25.0	26.5	106	73.0-130	
1,1,1,2-Tetrachloroethane	25.0	23.9	95.8	75.0-125	
1,1,2,2-Tetrachloroethane	25.0	20.8	83.2	65.0-130	
Tetrachloroethene	25.0	24.9	99.8	72.0-132	
1,1,2-Trichlorotrifluoroethane	25.0	22.4	89.7	69.0-132	
1,2,3-Trichlorobenzene	25.0	24.8	99.0	50.0-138	
1,2,4-Trichlorobenzene	25.0	24.9	99.6	57.0-137	
1,1,1-Trichloroethane	25.0	23.5	94.0	73.0-124	
1,1,2-Trichloroethane	25.0	22.3	89.2	80.0-120	
Trichloroethene	25.0	26.2	105	78.0-124	
Trichlorofluoromethane	25.0	16.4	65.5	59.0-147	
1,2,3-Trichloropropane	25.0	20.3	81.3	73.0-130	
1,2,3-Trimethylbenzene	25.0	21.6	86.3	77.0-120	
1,2,4-Trimethylbenzene	25.0	22.2	88.7	76.0-121	
1,3,5-Trimethylbenzene	25.0	22.2	89.0	76.0-122	
Naphthalene	25.0	24.9	99.8	54.0-135	
Vinyl chloride	25.0	18.5	73.8	67.0-131	
Toluene	25.0	25.3	101	79.0-120	
Xylenes, Total	75.0	72.5	96.7	79.0-123	
(S) Toluene-d8		100		80.0-120	
(S) 4-Bromofluorobenzene		109		77.0-126	
(S) 1,2-Dichloroethane-d4		91.0		70.0-130	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



L1093242-01,02,03,05,06,07,08

Method Blank (MB)

(MB) R3407938-3 05/03/19 10:11

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloroethane	U		0.141	2.50
1,1-Dichloroethane	U		0.114	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
Tetrachloroethene	U		0.199	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
Trichloroethene	U		0.153	0.500
(S) Toluene-d8	96.9		80.0-120	
(S) 4-Bromofluorobenzene	109		77.0-126	
(S) 1,2-Dichloroethane-d4	95.5		70.0-130	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3407938-1 05/03/19 09:11 • (LCSD) R3407938-2 05/03/19 09:31

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
Chloroethane	25.0	15.9	14.4	63.6	57.6	47.0-150			9.85	20
1,1-Dichloroethane	25.0	25.7	24.0	103	96.0	70.0-126			6.87	20
cis-1,2-Dichloroethene	25.0	24.0	23.2	96.1	93.0	73.0-120			3.33	20
Tetrachloroethene	25.0	23.8	23.6	95.2	94.3	72.0-132			0.966	20
1,1,1-Trichloroethane	25.0	24.0	23.4	96.1	93.6	73.0-124			2.65	20
Trichloroethene	25.0	26.0	24.9	104	99.8	78.0-124			4.20	20
(S) Toluene-d8			98.5	96.4	80.0-120					
(S) 4-Bromofluorobenzene			107	110	77.0-126					
(S) 1,2-Dichloroethane-d4			96.5	94.6	70.0-130					



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.	¹ Cp
RDL	Reported Detection Limit.	² Tc
Rec.	Recovery.	³ Ss
RPD	Relative Percent Difference.	⁴ Cn
SDG	Sample Delivery Group.	⁵ Sr
(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.	⁶ Qc
U	Not detected at the Reporting Limit (or MDL where applicable).	⁷ GI
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	⁸ AI
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.	⁹ SC
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

J	The identification of the analyte is acceptable; the reported value is an estimate.
JO	JO: The identification of the analyte is acceptable, but the reported concentration is an estimate. The calibration met method criteria.
V	The sample concentration is too high to evaluate accurate spike recoveries.



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
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia ¹	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky ^{1,6}	90010
Kentucky ²	16
Louisiana	AI30792
Louisiana ¹	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LA000356
South Carolina	84004
South Dakota	n/a
Tennessee ^{1,4}	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

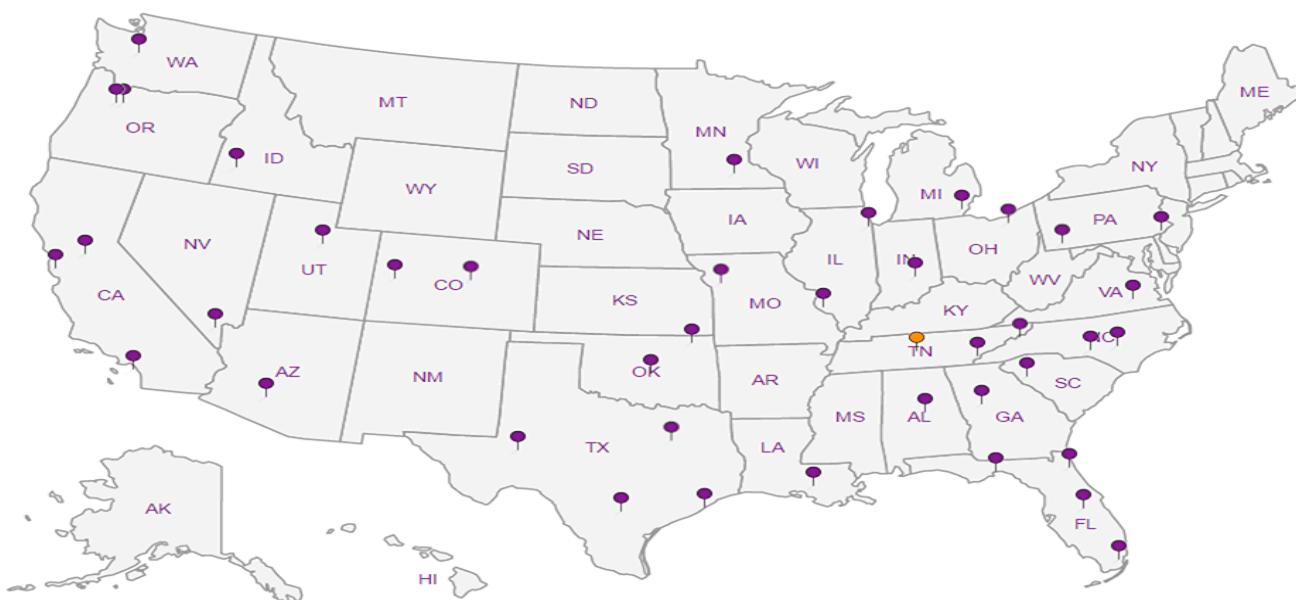
A2LA – ISO 17025	1461.01
A2LA – ISO 17025 ⁵	1461.02
Canada	1461.01
EPA-Crypto	TN00003

AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

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.



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

PES Environmental, Inc. -WA
1215 4th Avenue STE 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 4th Ave STE 1350
Seattle, WA 98161

Report to:
Brian O'Neal/Bill Haldeman

Project **American Linen**
Description:

Phone: **206-529-3980**
Fax: **206-529-3985**

Collected by (print):
K. Zygas

Collected by (signature):
K. Zygas

Immediately
Packed on Ice N Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
MW-910-042619	Grab <input checked="" type="checkbox"/>	GW <input checked="" type="checkbox"/>	25	4/26/19	0815	6
MW-148-042619	Grab <input checked="" type="checkbox"/>	GW <input checked="" type="checkbox"/>	75		0910	12
MW-159-042619	Grab <input checked="" type="checkbox"/>	GW <input checked="" type="checkbox"/>	25		1105	6
MW-9-042619	Grab <input checked="" type="checkbox"/>	GW <input checked="" type="checkbox"/>	15		1300	6
Trip Blank-042619	Grab <input checked="" type="checkbox"/>	GW <input checked="" type="checkbox"/>				
	Grab <input checked="" type="checkbox"/>	GW <input checked="" type="checkbox"/>				
	Grab <input checked="" type="checkbox"/>	GW <input checked="" type="checkbox"/>				
	Grab <input checked="" type="checkbox"/>	GW <input checked="" type="checkbox"/>				
	Grab <input checked="" type="checkbox"/>	GW <input checked="" type="checkbox"/>				
	Grab <input checked="" type="checkbox"/>	GW <input checked="" type="checkbox"/>				

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

Remarks:

Tier 2 lab QA/QC

Samples returned via:

UPS FedEx Courier

Tracking # *4108104107395*

Relinquished by : (Signature)

Date: *04-26-19* Time: *1500*

Relinquished by : (Signature)

Date: _____ Time: _____

Relinquished by : (Signature)

Date: _____ Time: _____

Received for lab by: (Signature)

B Maxwell

Pres Chk *✓ ✓*

Analysis / Container / Preservative

NO₃,SO₄,Cl, 125mlHDPE-NoPres

Alkalinity 125mlHDPE-NoPres

EEM (RSK175LL) 40mlAmb-HCl

TOC 250mlAmb-HCl

Total Fe Mn 6020 250mlHDPE-HNO₃

VOC (8260)

GRO (NWTPH-Gx)

Chain of Custody Page *2 of 2*

Pace Analytical
National Center for Testing & Innovation

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



L# *1093242*
T *E152*

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via:
Remarks Sample # (lab only)

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

RAD SCREEN: *<0.5 mR/hr*

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity	267000		2710	20000	1	05/04/2019 20:24	WG1275809

Sample Narrative:

L1093242-01 WG1275809: Endpoint pH 4.5 headspace

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	23600		51.9	1000	1	04/27/2019 13:06	WG1272741
Nitrate	U		22.7	100	1	04/27/2019 13:06	WG1272741
Sulfate	15900		77.4	5000	1	04/27/2019 13:06	WG1272741

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	3320		102	1000	1	04/29/2019 19:55	WG1273394

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Iron	3420		15.0	100	1	05/07/2019 23:12	WG1271844
Manganese	695		0.250	5.00	1	05/07/2019 23:12	WG1271844

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	05/01/2019 15:18	WG1274492
(S) a,a,a-Trifluorotoluene(FID)	92.9			78.0-120		05/01/2019 15:18	WG1274492

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methane	42.1		0.287	0.678	1	05/03/2019 15:01	WG1275531
Ethane	U		0.296	1.29	1	05/03/2019 15:01	WG1275531
Ethene	U		0.422	1.27	1	05/03/2019 15:01	WG1275531

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	1.65	U	J	1.05	25.0	1	04/27/2019 16:01	WG1272804
Acrylonitrile	U			0.873	5.00	1	04/27/2019 16:01	WG1272804
Benzene	U			0.0896	0.500	1	04/27/2019 16:01	WG1272804
Bromobenzene	U			0.133	0.500	1	04/27/2019 16:01	WG1272804
Bromodichloromethane	U			0.0800	0.500	1	04/27/2019 16:01	WG1272804
Bromochloromethane	U			0.145	0.500	1	04/27/2019 16:01	WG1272804
Bromoform	U			0.186	0.500	1	04/27/2019 16:01	WG1272804
Bromomethane	U	UJ	JO	0.157	2.50	1	04/27/2019 16:01	WG1272804
n-Butylbenzene	U			0.143	0.500	1	04/27/2019 16:01	WG1272804
sec-Butylbenzene	U			0.134	0.500	1	04/27/2019 16:01	WG1272804
tert-Butylbenzene	U			0.183	0.500	1	04/27/2019 16:01	WG1272804
Carbon disulfide	0.142	J	J	0.101	0.500	1	04/27/2019 16:01	WG1272804
Carbon tetrachloride	U			0.159	0.500	1	04/27/2019 16:01	WG1272804

JC 5/13/19



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	04/27/2019 16:01	WG1272804
Chlorodibromomethane	U		0.128	0.500	1	04/27/2019 16:01	WG1272804
Chloroethane	U	UJ JO	0.141	2.50	1	05/03/2019 13:59	WG1275623
Chloroform	U		0.0860	0.500	1	04/27/2019 16:01	WG1272804
Chloromethane	U		0.153	1.25	1	04/27/2019 16:01	WG1272804
2-Chlorotoluene	U		0.111	0.500	1	04/27/2019 16:01	WG1272804
4-Chlorotoluene	U		0.0972	0.500	1	04/27/2019 16:01	WG1272804
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/27/2019 16:01	WG1272804
1,2-Dibromoethane	U		0.193	0.500	1	04/27/2019 16:01	WG1272804
Dibromomethane	U		0.117	0.500	1	04/27/2019 16:01	WG1272804
1,2-Dichlorobenzene	U		0.101	0.500	1	04/27/2019 16:01	WG1272804
1,3-Dichlorobenzene	U		0.130	0.500	1	04/27/2019 16:01	WG1272804
1,4-Dichlorobenzene	U		0.121	0.500	1	04/27/2019 16:01	WG1272804
Dichlorodifluoromethane	U		0.127	2.50	1	04/27/2019 16:01	WG1272804
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 13:59	WG1275623
1,2-Dichloroethane	U		0.108	0.500	1	04/27/2019 16:01	WG1272804
1,1-Dichloroethene	U		0.188	0.500	1	04/27/2019 16:01	WG1272804
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/27/2019 16:01	WG1272804
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/27/2019 16:01	WG1272804
1,2-Dichloropropane	U		0.190	0.500	1	04/27/2019 16:01	WG1272804
1,1-Dichloropropene	U		0.128	0.500	1	04/27/2019 16:01	WG1272804
1,3-Dichloropropane	U		0.147	1.00	1	04/27/2019 16:01	WG1272804
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/27/2019 16:01	WG1272804
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/27/2019 16:01	WG1272804
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/27/2019 16:01	WG1272804
2,2-Dichloropropane	U		0.0929	0.500	1	04/27/2019 16:01	WG1272804
Di-isopropyl ether	U		0.0924	0.500	1	04/27/2019 16:01	WG1272804
Ethylbenzene	U		0.158	0.500	1	04/27/2019 16:01	WG1272804
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/27/2019 16:01	WG1272804
2-Hexanone	U		0.757	5.00	1	04/27/2019 16:01	WG1272804
n-Hexane	U		0.305	5.00	1	04/27/2019 16:01	WG1272804
Iodomethane	U		0.377	10.0	1	04/27/2019 16:01	WG1272804
Isopropylbenzene	U		0.126	0.500	1	04/27/2019 16:01	WG1272804
p-Isopropyltoluene	U		0.138	0.500	1	04/27/2019 16:01	WG1272804
2-Butanone (MEK)	U		1.28	5.00	1	04/27/2019 16:01	WG1272804
Methylene Chloride	U		1.07	2.50	1	04/27/2019 16:01	WG1272804
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/27/2019 16:01	WG1272804
Methyl tert-butyl ether	U		0.102	0.500	1	04/27/2019 16:01	WG1272804
Naphthalene	U		0.174	2.50	1	04/27/2019 16:01	WG1272804
n-Propylbenzene	U		0.162	0.500	1	04/27/2019 16:01	WG1272804
Styrene	U		0.117	0.500	1	04/27/2019 16:01	WG1272804
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/27/2019 16:01	WG1272804
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/27/2019 16:01	WG1272804
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/27/2019 16:01	WG1272804
Tetrachloroethene	U		0.199	0.500	1	04/27/2019 16:01	WG1272804
Toluene	U		0.412	0.500	1	04/27/2019 16:01	WG1272804
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/27/2019 16:01	WG1272804
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/27/2019 16:01	WG1272804
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 13:59	WG1275623
1,1,2-Trichloroethane	U		0.186	0.500	1	04/27/2019 16:01	WG1272804
Trichloroethene	U		0.153	0.500	1	04/27/2019 16:01	WG1272804
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	04/27/2019 16:01	WG1272804
1,2,3-Trichloropropane	U		0.247	2.50	1	04/27/2019 16:01	WG1272804
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/27/2019 16:01	WG1272804
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/27/2019 16:01	WG1272804
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/27/2019 16:01	WG1272804

JC 5/13/19

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Vinyl acetate	U		0.645	5.00	1	04/27/2019 16:01	WG1272804	¹ Cp
Vinyl chloride	U	UJ	0.118	0.500	1	04/27/2019 16:01	WG1272804	² Tc
Xylenes, Total	U		0.316	1.50	1	04/27/2019 16:01	WG1272804	³ Ss
(S) Toluene-d8	97.8			80.0-120		04/27/2019 16:01	WG1272804	
(S) Toluene-d8	96.7			80.0-120		05/03/2019 13:59	WG1275623	
(S) 4-Bromofluorobenzene	105			77.0-126		04/27/2019 16:01	WG1272804	⁴ Cn
(S) 4-Bromofluorobenzene	104			77.0-126		05/03/2019 13:59	WG1275623	
(S) 1,2-Dichloroethane-d4	96.8			70.0-130		04/27/2019 16:01	WG1272804	⁵ Sr
(S) 1,2-Dichloroethane-d4	94.6			70.0-130		05/03/2019 13:59	WG1275623	⁶ Qc
								⁷ Gl
								⁸ Al
								⁹ Sc

JC 5/13/19



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity	287000		2710	20000	1	05/04/2019 20:31	WG1275809

Sample Narrative:

L1093242-02 WG1275809: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	44700		51.9	1000	1	04/27/2019 13:21	WG1272741
Nitrate	U		22.7	100	1	04/27/2019 13:21	WG1272741
Sulfate	73900		77.4	5000	1	04/27/2019 13:21	WG1272741

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	5290		102	1000	1	04/29/2019 20:10	WG1273394

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Iron	5730		15.0	100	1	05/07/2019 23:17	WG1271844
Manganese	318		0.250	5.00	1	05/07/2019 23:17	WG1271844

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	05/01/2019 15:38	WG1274492
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	93.9			78.0-120		05/01/2019 15:38	WG1274492

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methane	455		0.287	0.678	1	05/03/2019 15:15	WG1275531
Ethane	1.73		0.296	1.29	1	05/03/2019 15:15	WG1275531
Ethene	5.24		0.422	1.27	1	05/03/2019 15:15	WG1275531

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	3.01	U	1.05	25.0	1	04/27/2019 16:21	WG1272804
Acrylonitrile	U		0.873	5.00	1	04/27/2019 16:21	WG1272804
Benzene	U		0.0896	0.500	1	04/27/2019 16:21	WG1272804
Bromobenzene	U		0.133	0.500	1	04/27/2019 16:21	WG1272804
Bromodichloromethane	U		0.0800	0.500	1	04/27/2019 16:21	WG1272804
Bromochloromethane	U		0.145	0.500	1	04/27/2019 16:21	WG1272804
Bromoform	U		0.186	0.500	1	04/27/2019 16:21	WG1272804
Bromomethane	U	UJ	0.157	2.50	1	04/27/2019 16:21	WG1272804
n-Butylbenzene	U		0.143	0.500	1	04/27/2019 16:21	WG1272804
sec-Butylbenzene	U		0.134	0.500	1	04/27/2019 16:21	WG1272804
tert-Butylbenzene	U		0.183	0.500	1	04/27/2019 16:21	WG1272804
Carbon disulfide	0.365	J	0.101	0.500	1	04/27/2019 16:21	WG1272804
Carbon tetrachloride	U		0.159	0.500	1	04/27/2019 16:21	WG1272804

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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	
Chlorobenzene	U		0.140	0.500	1	04/27/2019 16:21	WG1272804	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/27/2019 16:21	WG1272804	² Tc
Chloroethane	U	UJ JO	0.141	2.50	1	05/03/2019 14:19	WG1275623	³ Ss
Chloroform	U		0.0860	0.500	1	04/27/2019 16:21	WG1272804	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/27/2019 16:21	WG1272804	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/27/2019 16:21	WG1272804	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/27/2019 16:21	WG1272804	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/27/2019 16:21	WG1272804	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	04/27/2019 16:21	WG1272804	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/27/2019 16:21	WG1272804	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/27/2019 16:21	WG1272804	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/27/2019 16:21	WG1272804	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/27/2019 16:21	WG1272804	
Dichlorodifluoromethane	U		0.127	2.50	1	04/27/2019 16:21	WG1272804	
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 14:19	WG1275623	
1,2-Dichloroethane	U		0.108	0.500	1	04/27/2019 16:21	WG1272804	
1,1-Dichloroethene	U		0.188	0.500	1	04/27/2019 16:21	WG1272804	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/27/2019 16:21	WG1272804	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/27/2019 16:21	WG1272804	
1,2-Dichloropropane	U		0.190	0.500	1	04/27/2019 16:21	WG1272804	
1,1-Dichloropropene	U		0.128	0.500	1	04/27/2019 16:21	WG1272804	
1,3-Dichloropropane	U		0.147	1.00	1	04/27/2019 16:21	WG1272804	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/27/2019 16:21	WG1272804	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/27/2019 16:21	WG1272804	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/27/2019 16:21	WG1272804	
2,2-Dichloropropane	U		0.0929	0.500	1	04/27/2019 16:21	WG1272804	
Di-isopropyl ether	U		0.0924	0.500	1	04/27/2019 16:21	WG1272804	
Ethylbenzene	U		0.158	0.500	1	04/27/2019 16:21	WG1272804	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/27/2019 16:21	WG1272804	
2-Hexanone	U		0.757	5.00	1	04/27/2019 16:21	WG1272804	
n-Hexane	U		0.305	5.00	1	04/27/2019 16:21	WG1272804	
Iodomethane	U		0.377	10.0	1	04/27/2019 16:21	WG1272804	
Isopropylbenzene	U		0.126	0.500	1	04/27/2019 16:21	WG1272804	
p-Isopropyltoluene	U		0.138	0.500	1	04/27/2019 16:21	WG1272804	
2-Butanone (MEK)	U		1.28	5.00	1	04/27/2019 16:21	WG1272804	
Methylene Chloride	U		1.07	2.50	1	04/27/2019 16:21	WG1272804	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/27/2019 16:21	WG1272804	
Methyl tert-butyl ether	U		0.102	0.500	1	04/27/2019 16:21	WG1272804	
Naphthalene	U		0.174	2.50	1	04/27/2019 16:21	WG1272804	
n-Propylbenzene	U		0.162	0.500	1	04/27/2019 16:21	WG1272804	
Styrene	U		0.117	0.500	1	04/27/2019 16:21	WG1272804	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/27/2019 16:21	WG1272804	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/27/2019 16:21	WG1272804	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/27/2019 16:21	WG1272804	
Tetrachloroethene	U		0.199	0.500	1	04/27/2019 16:21	WG1272804	
Toluene	U		0.412	0.500	1	04/27/2019 16:21	WG1272804	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/27/2019 16:21	WG1272804	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/27/2019 16:21	WG1272804	JC 5/13/19
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 14:19	WG1275623	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/27/2019 16:21	WG1272804	
Trichloroethene	U		0.153	0.500	1	04/27/2019 16:21	WG1272804	
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	04/27/2019 16:21	WG1272804	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/27/2019 16:21	WG1272804	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/27/2019 16:21	WG1272804	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/27/2019 16:21	WG1272804	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/27/2019 16:21	WG1272804	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch		
Vinyl acetate	U		0.645	5.00	1	04/27/2019 16:21	WG1272804	¹ Cp	
Vinyl chloride	0.392	J	JJ0	0.118	0.500	1	04/27/2019 16:21	WG1272804	² Tc
Xylenes, Total	U		0.316	1.50	1	04/27/2019 16:21	WG1272804	³ Ss	
(S) Toluene-d8	99.1			80.0-120		04/27/2019 16:21	WG1272804	⁴ Cn	
(S) Toluene-d8	99.5			80.0-120		05/03/2019 14:19	WG1275623	⁵ Sr	
(S) 4-Bromofluorobenzene	104			77.0-126		04/27/2019 16:21	WG1272804	⁶ Qc	
(S) 4-Bromofluorobenzene	106			77.0-126		05/03/2019 14:19	WG1275623	⁷ Gl	
(S) 1,2-Dichloroethane-d4	96.0			70.0-130		04/27/2019 16:21	WG1272804	⁸ Al	
(S) 1,2-Dichloroethane-d4	94.9			70.0-130		05/03/2019 14:19	WG1275623	⁹ Sc	

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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	
Acetone	U		1.05	25.0	1	04/27/2019 16:41	WG1272804	¹ Cp
Acrylonitrile	U		0.873	5.00	1	04/27/2019 16:41	WG1272804	² Tc
Benzene	0.291	J	0.0896	0.500	1	04/27/2019 16:41	WG1272804	³ Ss
Bromobenzene	U		0.133	0.500	1	04/27/2019 16:41	WG1272804	⁴ Cn
Bromodichloromethane	U		0.0800	0.500	1	04/27/2019 16:41	WG1272804	⁵ Sr
Bromoform	U		0.145	0.500	1	04/27/2019 16:41	WG1272804	⁶ Qc
Bromomethane	U	UJ	0.157	2.50	1	04/27/2019 16:41	WG1272804	⁷ Gl
n-Butylbenzene	U		0.143	0.500	1	04/27/2019 16:41	WG1272804	⁸ Al
sec-Butylbenzene	U		0.134	0.500	1	04/27/2019 16:41	WG1272804	⁹ Sc
tert-Butylbenzene	U		0.183	0.500	1	04/27/2019 16:41	WG1272804	
Carbon disulfide	U		0.101	0.500	1	04/27/2019 16:41	WG1272804	
Carbon tetrachloride	U		0.159	0.500	1	04/27/2019 16:41	WG1272804	
Chlorobenzene	U		0.140	0.500	1	04/27/2019 16:41	WG1272804	
Chlorodibromomethane	U		0.128	0.500	1	04/27/2019 16:41	WG1272804	
Chloroethane	U	UJ	7.05	125	50	05/03/2019 16:20	WG1275623	
Chloroform	U		0.0860	0.500	1	04/27/2019 16:41	WG1272804	
Chloromethane	U		0.153	1.25	1	04/27/2019 16:41	WG1272804	
2-Chlorotoluene	U		0.111	0.500	1	04/27/2019 16:41	WG1272804	
4-Chlorotoluene	U		0.0972	0.500	1	04/27/2019 16:41	WG1272804	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/27/2019 16:41	WG1272804	
1,2-Dibromoethane	U		0.193	0.500	1	04/27/2019 16:41	WG1272804	
Dibromomethane	U		0.117	0.500	1	04/27/2019 16:41	WG1272804	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/27/2019 16:41	WG1272804	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/27/2019 16:41	WG1272804	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/27/2019 16:41	WG1272804	
Dichlorodifluoromethane	U		0.127	2.50	1	04/27/2019 16:41	WG1272804	
1,1-Dichloroethane	U		5.70	25.0	50	05/03/2019 16:20	WG1275623	
1,2-Dichloroethane	U		0.108	0.500	1	04/27/2019 16:41	WG1272804	
1,1-Dichloroethene	7.03		0.188	0.500	1	04/27/2019 16:41	WG1272804	
cis-1,2-Dichloroethene	710		4.66	25.0	50	05/03/2019 16:20	WG1275623	
trans-1,2-Dichloroethene	5.59		0.152	0.500	1	04/27/2019 16:41	WG1272804	
1,2-Dichloropropane	U		0.190	0.500	1	04/27/2019 16:41	WG1272804	
1,1-Dichloropropene	U		0.128	0.500	1	04/27/2019 16:41	WG1272804	
1,3-Dichloropropane	U		0.147	1.00	1	04/27/2019 16:41	WG1272804	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/27/2019 16:41	WG1272804	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/27/2019 16:41	WG1272804	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/27/2019 16:41	WG1272804	
2,2-Dichloropropane	U		0.0929	0.500	1	04/27/2019 16:41	WG1272804	
Di-isopropyl ether	U		0.0924	0.500	1	04/27/2019 16:41	WG1272804	
Ethylbenzene	U		0.158	0.500	1	04/27/2019 16:41	WG1272804	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/27/2019 16:41	WG1272804	
2-Hexanone	U		0.757	5.00	1	04/27/2019 16:41	WG1272804	
n-Hexane	U		0.305	5.00	1	04/27/2019 16:41	WG1272804	
Iodomethane	U		0.377	10.0	1	04/27/2019 16:41	WG1272804	
Isopropylbenzene	U		0.126	0.500	1	04/27/2019 16:41	WG1272804	
p-Isopropyltoluene	U		0.138	0.500	1	04/27/2019 16:41	WG1272804	
2-Butanone (MEK)	U		1.28	5.00	1	04/27/2019 16:41	WG1272804	
Methylene Chloride	U		1.07	2.50	1	04/27/2019 16:41	WG1272804	JC 5/13/19
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/27/2019 16:41	WG1272804	
Methyl tert-butyl ether	U		0.102	0.500	1	04/27/2019 16:41	WG1272804	
Naphthalene	U		0.174	2.50	1	04/27/2019 16:41	WG1272804	
n-Propylbenzene	U		0.162	0.500	1	04/27/2019 16:41	WG1272804	
Styrene	U		0.117	0.500	1	04/27/2019 16:41	WG1272804	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/27/2019 16:41	WG1272804	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/27/2019 16:41	WG1272804	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch		
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/27/2019 16:41	WG1272804	¹ Cp	
Tetrachloroethene	1500		9.95	25.0	50	05/03/2019 16:20	WG1275623	² Tc	
Toluene	U		0.412	0.500	1	04/27/2019 16:41	WG1272804	³ Ss	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/27/2019 16:41	WG1272804	⁴ Cn	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/27/2019 16:41	WG1272804	⁵ Sr	
1,1,1-Trichloroethane	U		4.70	25.0	50	05/03/2019 16:20	WG1275623	⁶ Qc	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/27/2019 16:41	WG1272804	⁷ Gl	
Trichloroethene	613		7.65	25.0	50	05/03/2019 16:20	WG1275623	⁸ Al	
Trichlorofluoromethane	U	UJ	JO	0.130	2.50	1	04/27/2019 16:41	WG1272804	⁹ Sc
1,2,3-Trichloropropane	U		0.247	2.50	1	04/27/2019 16:41	WG1272804		
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/27/2019 16:41	WG1272804		
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/27/2019 16:41	WG1272804		
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/27/2019 16:41	WG1272804		
Vinyl acetate	U		0.645	5.00	1	04/27/2019 16:41	WG1272804		
Vinyl chloride	0.900	J	JO	0.118	0.500	1	04/27/2019 16:41	WG1272804	
Xylenes, Total	U		0.316	1.50	1	04/27/2019 16:41	WG1272804		
(S) Toluene-d8	99.1			80.0-120		04/27/2019 16:41	WG1272804		
(S) Toluene-d8	98.7			80.0-120		05/03/2019 16:20	WG1275623		
(S) 4-Bromofluorobenzene	104			77.0-126		04/27/2019 16:41	WG1272804		
(S) 4-Bromofluorobenzene	101			77.0-126		05/03/2019 16:20	WG1275623		
(S) 1,2-Dichloroethane-d4	92.1			70.0-130		04/27/2019 16:41	WG1272804		
(S) 1,2-Dichloroethane-d4	98.9			70.0-130		05/03/2019 16:20	WG1275623		

Sample Narrative:

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L1093242-03 WG1272804, WG1275623: Not all compounds reportable at lower dilution.

L1093242-03 WG1272804, WG1275623: Cannot be re-analyzed at lower dilution due to high levels of target analytes.



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	05/01/2019 13:35	WG1274492
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.8			78.0-120		05/01/2019 13:35	WG1274492

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	
Acetone	1.43	<u>J</u>	1.05	25.0	1	04/27/2019 11:51	WG1272804	
Acrylonitrile	U		0.873	5.00	1	04/27/2019 11:51	WG1272804	
Benzene	U		0.0896	0.500	1	04/27/2019 11:51	WG1272804	
Bromobenzene	U		0.133	0.500	1	04/27/2019 11:51	WG1272804	
Bromodichloromethane	U		0.0800	0.500	1	04/27/2019 11:51	WG1272804	
Bromoform	U		0.145	0.500	1	04/27/2019 11:51	WG1272804	
Bromomethane	U	<u>UJ</u>	<u>JO</u>	0.157	2.50	1	04/27/2019 11:51	WG1272804
n-Butylbenzene	U		0.143	0.500	1	04/27/2019 11:51	WG1272804	
sec-Butylbenzene	U		0.134	0.500	1	04/27/2019 11:51	WG1272804	
tert-Butylbenzene	U		0.183	0.500	1	04/27/2019 11:51	WG1272804	
Carbon disulfide	U		0.101	0.500	1	04/27/2019 11:51	WG1272804	
Carbon tetrachloride	U		0.159	0.500	1	04/27/2019 11:51	WG1272804	
Chlorobenzene	U		0.140	0.500	1	04/27/2019 11:51	WG1272804	
Chlorodibromomethane	U		0.128	0.500	1	04/27/2019 11:51	WG1272804	
Chloroethane	U	<u>UJ</u>	<u>JO</u>	0.141	2.50	1	04/27/2019 11:51	WG1272804
Chloroform	U		0.0860	0.500	1	04/27/2019 11:51	WG1272804	
Chloromethane	U		0.153	1.25	1	04/27/2019 11:51	WG1272804	
2-Chlorotoluene	U		0.111	0.500	1	04/27/2019 11:51	WG1272804	
4-Chlorotoluene	U		0.0972	0.500	1	04/27/2019 11:51	WG1272804	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/27/2019 11:51	WG1272804	
1,2-Dibromoethane	U		0.193	0.500	1	04/27/2019 11:51	WG1272804	
Dibromomethane	U		0.117	0.500	1	04/27/2019 11:51	WG1272804	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/27/2019 11:51	WG1272804	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/27/2019 11:51	WG1272804	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/27/2019 11:51	WG1272804	
Dichlorodifluoromethane	U		0.127	2.50	1	04/27/2019 11:51	WG1272804	
1,1-Dichloroethane	U		0.114	0.500	1	04/27/2019 11:51	WG1272804	
1,2-Dichloroethane	U		0.108	0.500	1	04/27/2019 11:51	WG1272804	
1,1-Dichloroethene	U		0.188	0.500	1	04/27/2019 11:51	WG1272804	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/27/2019 11:51	WG1272804	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/27/2019 11:51	WG1272804	
1,2-Dichloropropane	U		0.190	0.500	1	04/27/2019 11:51	WG1272804	
1,1-Dichloropropene	U		0.128	0.500	1	04/27/2019 11:51	WG1272804	
1,3-Dichloropropane	U		0.147	1.00	1	04/27/2019 11:51	WG1272804	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/27/2019 11:51	WG1272804	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/27/2019 11:51	WG1272804	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/27/2019 11:51	WG1272804	
2,2-Dichloropropane	U		0.0929	0.500	1	04/27/2019 11:51	WG1272804	
Di-isopropyl ether	U		0.0924	0.500	1	04/27/2019 11:51	WG1272804	
Ethylbenzene	U		0.158	0.500	1	04/27/2019 11:51	WG1272804	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/27/2019 11:51	WG1272804	
2-Hexanone	U		0.757	5.00	1	04/27/2019 11:51	WG1272804	
n-Hexane	U		0.305	5.00	1	04/27/2019 11:51	WG1272804	
Iodomethane	U		0.377	10.0	1	04/27/2019 11:51	WG1272804	
Isopropylbenzene	U		0.126	0.500	1	04/27/2019 11:51	WG1272804	
p-Isopropyltoluene	U		0.138	0.500	1	04/27/2019 11:51	WG1272804	
2-Butanone (MEK)	U		1.28	5.00	1	04/27/2019 11:51	WG1272804	

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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	
Methylene Chloride	U		1.07	2.50	1	04/27/2019 11:51	WG1272804	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/27/2019 11:51	WG1272804	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	04/27/2019 11:51	WG1272804	³ Ss
Naphthalene	U		0.174	2.50	1	04/27/2019 11:51	WG1272804	⁴ Cn
n-Propylbenzene	U		0.162	0.500	1	04/27/2019 11:51	WG1272804	⁵ Sr
Styrene	U		0.117	0.500	1	04/27/2019 11:51	WG1272804	⁶ Qc
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/27/2019 11:51	WG1272804	⁷ Gl
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/27/2019 11:51	WG1272804	⁸ Al
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/27/2019 11:51	WG1272804	⁹ Sc
Tetrachloroethene	U		0.199	0.500	1	04/27/2019 11:51	WG1272804	
Toluene	U		0.412	0.500	1	04/27/2019 11:51	WG1272804	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/27/2019 11:51	WG1272804	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/27/2019 11:51	WG1272804	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/27/2019 11:51	WG1272804	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/27/2019 11:51	WG1272804	
Trichloroethene	U		0.153	0.500	1	04/27/2019 11:51	WG1272804	
Trichlorofluoromethane	U	^{UJ} ^{JO}	0.130	2.50	1	04/27/2019 11:51	WG1272804	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/27/2019 11:51	WG1272804	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/27/2019 11:51	WG1272804	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/27/2019 11:51	WG1272804	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/27/2019 11:51	WG1272804	
Vinyl acetate	U		0.645	5.00	1	04/27/2019 11:51	WG1272804	
Vinyl chloride	U	^{UJ} ^{JO}	0.118	0.500	1	04/27/2019 11:51	WG1272804	
Xylenes, Total	U		0.316	1.50	1	04/27/2019 11:51	WG1272804	
(S) Toluene-d8	106			80.0-120		04/27/2019 11:51	WG1272804	
(S) 4-Bromofluorobenzene	106			77.0-126		04/27/2019 11:51	WG1272804	
(S) 1,2-Dichloroethane-d4	104			70.0-130		04/27/2019 11:51	WG1272804	

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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	05/01/2019 15:59	WG1274492
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	93.2			78.0-120		05/01/2019 15:59	WG1274492

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
Acetone	1.65	U J	1.05	25.0	1	04/27/2019 17:01	WG1272804
Acrylonitrile	U		0.873	5.00	1	04/27/2019 17:01	WG1272804
Benzene	0.193	J J	0.0896	0.500	1	04/27/2019 17:01	WG1272804
Bromobenzene	U		0.133	0.500	1	04/27/2019 17:01	WG1272804
Bromodichloromethane	U		0.0800	0.500	1	04/27/2019 17:01	WG1272804
Bromoform	U		0.145	0.500	1	04/27/2019 17:01	WG1272804
Bromomethane	U	UJ JO	0.157	2.50	1	04/27/2019 17:01	WG1272804
n-Butylbenzene	U		0.143	0.500	1	04/27/2019 17:01	WG1272804
sec-Butylbenzene	U		0.134	0.500	1	04/27/2019 17:01	WG1272804
tert-Butylbenzene	U		0.183	0.500	1	04/27/2019 17:01	WG1272804
Carbon disulfide	U		0.101	0.500	1	04/27/2019 17:01	WG1272804
Carbon tetrachloride	U		0.159	0.500	1	04/27/2019 17:01	WG1272804
Chlorobenzene	U		0.140	0.500	1	04/27/2019 17:01	WG1272804
Chlorodibromomethane	U		0.128	0.500	1	04/27/2019 17:01	WG1272804
Chloroethane	U	UJ JO	0.141	2.50	1	05/03/2019 14:59	WG1275623
Chloroform	U		0.0860	0.500	1	04/27/2019 17:01	WG1272804
Chloromethane	U		0.153	1.25	1	04/27/2019 17:01	WG1272804
2-Chlorotoluene	U		0.111	0.500	1	04/27/2019 17:01	WG1272804
4-Chlorotoluene	U		0.0972	0.500	1	04/27/2019 17:01	WG1272804
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/27/2019 17:01	WG1272804
1,2-Dibromoethane	U		0.193	0.500	1	04/27/2019 17:01	WG1272804
Dibromomethane	U		0.117	0.500	1	04/27/2019 17:01	WG1272804
1,2-Dichlorobenzene	U		0.101	0.500	1	04/27/2019 17:01	WG1272804
1,3-Dichlorobenzene	U		0.130	0.500	1	04/27/2019 17:01	WG1272804
1,4-Dichlorobenzene	U		0.121	0.500	1	04/27/2019 17:01	WG1272804
Dichlorodifluoromethane	U		0.127	2.50	1	04/27/2019 17:01	WG1272804
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 14:59	WG1275623
1,2-Dichloroethane	U		0.108	0.500	1	04/27/2019 17:01	WG1272804
1,1-Dichloroethene	U		0.188	0.500	1	04/27/2019 17:01	WG1272804
cis-1,2-Dichloroethene	1.12		0.0933	0.500	1	05/03/2019 14:59	WG1275623
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/27/2019 17:01	WG1272804
1,2-Dichloropropane	U		0.190	0.500	1	04/27/2019 17:01	WG1272804
1,1-Dichloropropene	U		0.128	0.500	1	04/27/2019 17:01	WG1272804
1,3-Dichloropropane	U		0.147	1.00	1	04/27/2019 17:01	WG1272804
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/27/2019 17:01	WG1272804
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/27/2019 17:01	WG1272804
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/27/2019 17:01	WG1272804
2,2-Dichloropropane	U		0.0929	0.500	1	04/27/2019 17:01	WG1272804
Di-isopropyl ether	U		0.0924	0.500	1	04/27/2019 17:01	WG1272804
Ethylbenzene	U		0.158	0.500	1	04/27/2019 17:01	WG1272804
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/27/2019 17:01	WG1272804
2-Hexanone	U		0.757	5.00	1	04/27/2019 17:01	WG1272804
n-Hexane	U		0.305	5.00	1	04/27/2019 17:01	WG1272804
Iodomethane	U		0.377	10.0	1	04/27/2019 17:01	WG1272804
Isopropylbenzene	U		0.126	0.500	1	04/27/2019 17:01	WG1272804
p-Isopropyltoluene	U		0.138	0.500	1	04/27/2019 17:01	WG1272804
2-Butanone (MEK)	U		1.28	5.00	1	04/27/2019 17:01	WG1272804

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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		
Methylene Chloride	U		1.07	2.50	1	04/27/2019 17:01	WG1272804	¹ Cp	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/27/2019 17:01	WG1272804	² Tc	
Methyl tert-butyl ether	U		0.102	0.500	1	04/27/2019 17:01	WG1272804	³ Ss	
Naphthalene	U		0.174	2.50	1	04/27/2019 17:01	WG1272804	⁴ Cn	
n-Propylbenzene	U		0.162	0.500	1	04/27/2019 17:01	WG1272804	⁵ Sr	
Styrene	U		0.117	0.500	1	04/27/2019 17:01	WG1272804	⁶ Qc	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/27/2019 17:01	WG1272804	⁷ Gl	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/27/2019 17:01	WG1272804	⁸ Al	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/27/2019 17:01	WG1272804	⁹ Sc	
Tetrachloroethene	U		0.199	0.500	1	05/03/2019 14:59	WG1275623		
Toluene	U		0.412	0.500	1	04/27/2019 17:01	WG1272804		
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/27/2019 17:01	WG1272804		
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/27/2019 17:01	WG1272804		
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 14:59	WG1275623		
1,1,2-Trichloroethane	U		0.186	0.500	1	04/27/2019 17:01	WG1272804		
Trichloroethene	U		0.153	0.500	1	05/03/2019 14:59	WG1275623		
Trichlorofluoromethane	U	UJ	JO	0.130	2.50	1	04/27/2019 17:01	WG1272804	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/27/2019 17:01	WG1272804		
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/27/2019 17:01	WG1272804		
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/27/2019 17:01	WG1272804		
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/27/2019 17:01	WG1272804		
Vinyl acetate	U		0.645	5.00	1	04/27/2019 17:01	WG1272804		
Vinyl chloride	1.04	J	JO	0.118	0.500	1	04/27/2019 17:01	WG1272804	
Xylenes, Total	U		0.316	1.50	1	04/27/2019 17:01	WG1272804		
(S) Toluene-d8	99.1			80.0-120		04/27/2019 17:01	WG1272804		
(S) Toluene-d8	98.3			80.0-120		05/03/2019 14:59	WG1275623		
(S) 4-Bromofluorobenzene	107			77.0-126		04/27/2019 17:01	WG1272804		
(S) 4-Bromofluorobenzene	105			77.0-126		05/03/2019 14:59	WG1275623		
(S) 1,2-Dichloroethane-d4	94.7			70.0-130		04/27/2019 17:01	WG1272804		
(S) 1,2-Dichloroethane-d4	93.6			70.0-130		05/03/2019 14:59	WG1275623	JC 5/13/19	



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity	161000		2710	20000	1	05/04/2019 20:39	WG1275809

Sample Narrative:

L1093242-06 WG1275809: Endpoint pH 4.5 headspace

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	17100		51.9	1000	1	04/27/2019 14:05	WG1272741
Nitrate	U		22.7	100	1	04/27/2019 14:05	WG1272741
Sulfate	175000		387	25000	5	04/27/2019 14:58	WG1272741

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	5190		102	1000	1	04/29/2019 20:23	WG1273394

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Iron	2910		15.0	100	1	05/07/2019 23:21	WG1271844
Manganese	420		0.250	5.00	1	05/07/2019 23:21	WG1271844

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	05/01/2019 16:20	WG1274492
(S) a,a,a-Trifluorotoluene(FID)	93.7			78.0-120		05/01/2019 16:20	WG1274492

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methane	1600		0.287	0.678	1	05/03/2019 15:20	WG1275531
Ethane	U		0.296	1.29	1	05/03/2019 15:20	WG1275531
Ethene	3.65		0.422	1.27	1	05/03/2019 15:20	WG1275531

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	JC 5/13/19
Acetone	1.70	U	J	1.05	25.0	1	04/27/2019 17:21	WG1272804
Acrylonitrile	U			0.873	5.00	1	04/27/2019 17:21	WG1272804
Benzene	U			0.0896	0.500	1	04/27/2019 17:21	WG1272804
Bromobenzene	U			0.133	0.500	1	04/27/2019 17:21	WG1272804
Bromodichloromethane	U			0.0800	0.500	1	04/27/2019 17:21	WG1272804
Bromochloromethane	U			0.145	0.500	1	04/27/2019 17:21	WG1272804
Bromoform	U			0.186	0.500	1	04/27/2019 17:21	WG1272804
Bromomethane	U	UJ	JO	0.157	2.50	1	04/27/2019 17:21	WG1272804
n-Butylbenzene	U			0.143	0.500	1	04/27/2019 17:21	WG1272804
sec-Butylbenzene	U			0.134	0.500	1	04/27/2019 17:21	WG1272804
tert-Butylbenzene	U			0.183	0.500	1	04/27/2019 17:21	WG1272804
Carbon disulfide	0.198	J	J	0.101	0.500	1	04/27/2019 17:21	WG1272804
Carbon tetrachloride	U			0.159	0.500	1	04/27/2019 17:21	WG1272804



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	04/27/2019 17:21	WG1272804	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	04/27/2019 17:21	WG1272804	² Tc
Chloroethane	U	UJ JO	0.141	2.50	1	05/03/2019 15:19	WG1275623	³ Ss
Chloroform	U		0.0860	0.500	1	04/27/2019 17:21	WG1272804	⁴ Cn
Chloromethane	U		0.153	1.25	1	04/27/2019 17:21	WG1272804	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	04/27/2019 17:21	WG1272804	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	04/27/2019 17:21	WG1272804	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/27/2019 17:21	WG1272804	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	04/27/2019 17:21	WG1272804	⁹ Sc
Dibromomethane	U		0.117	0.500	1	04/27/2019 17:21	WG1272804	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/27/2019 17:21	WG1272804	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/27/2019 17:21	WG1272804	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/27/2019 17:21	WG1272804	
Dichlorodifluoromethane	U		0.127	2.50	1	04/27/2019 17:21	WG1272804	
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 15:19	WG1275623	
1,2-Dichloroethane	U		0.108	0.500	1	04/27/2019 17:21	WG1272804	
1,1-Dichloroethene	U		0.188	0.500	1	04/27/2019 17:21	WG1272804	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/03/2019 15:19	WG1275623	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/27/2019 17:21	WG1272804	
1,2-Dichloropropane	U		0.190	0.500	1	04/27/2019 17:21	WG1272804	
1,1-Dichloropropene	U		0.128	0.500	1	04/27/2019 17:21	WG1272804	
1,3-Dichloropropane	U		0.147	1.00	1	04/27/2019 17:21	WG1272804	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/27/2019 17:21	WG1272804	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/27/2019 17:21	WG1272804	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/27/2019 17:21	WG1272804	
2,2-Dichloropropane	U		0.0929	0.500	1	04/27/2019 17:21	WG1272804	
Di-isopropyl ether	U		0.0924	0.500	1	04/27/2019 17:21	WG1272804	
Ethylbenzene	U		0.158	0.500	1	04/27/2019 17:21	WG1272804	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/27/2019 17:21	WG1272804	
2-Hexanone	U		0.757	5.00	1	04/27/2019 17:21	WG1272804	
n-Hexane	U		0.305	5.00	1	04/27/2019 17:21	WG1272804	
Iodomethane	U		0.377	10.0	1	04/27/2019 17:21	WG1272804	
Isopropylbenzene	U		0.126	0.500	1	04/27/2019 17:21	WG1272804	
p-Isopropyltoluene	U		0.138	0.500	1	04/27/2019 17:21	WG1272804	
2-Butanone (MEK)	U		1.28	5.00	1	04/27/2019 17:21	WG1272804	
Methylene Chloride	U		1.07	2.50	1	04/27/2019 17:21	WG1272804	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/27/2019 17:21	WG1272804	
Methyl tert-butyl ether	U		0.102	0.500	1	04/27/2019 17:21	WG1272804	
Naphthalene	U		0.174	2.50	1	04/27/2019 17:21	WG1272804	
n-Propylbenzene	U		0.162	0.500	1	04/27/2019 17:21	WG1272804	JC 5/13/19
Styrene	U		0.117	0.500	1	04/27/2019 17:21	WG1272804	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/27/2019 17:21	WG1272804	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/27/2019 17:21	WG1272804	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/27/2019 17:21	WG1272804	
Tetrachloroethene	U		0.199	0.500	1	05/03/2019 15:19	WG1275623	
Toluene	U		0.412	0.500	1	04/27/2019 17:21	WG1272804	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/27/2019 17:21	WG1272804	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/27/2019 17:21	WG1272804	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 15:19	WG1275623	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/27/2019 17:21	WG1272804	
Trichloroethene	U		0.153	0.500	1	04/27/2019 17:21	WG1272804	
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	04/27/2019 17:21	WG1272804	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/27/2019 17:21	WG1272804	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/27/2019 17:21	WG1272804	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/27/2019 17:21	WG1272804	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/27/2019 17:21	WG1272804	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch		
Vinyl acetate	U		0.645	5.00	1	04/27/2019 17:21	WG1272804	¹ Cp	
Vinyl chloride	0.277	J	<u>JJ0</u>	0.118	0.500	1	04/27/2019 17:21	WG1272804	² Tc
Xylenes, Total	U		0.316	1.50	1	04/27/2019 17:21	WG1272804	³ Ss	
(S) Toluene-d8	97.2			80.0-120		04/27/2019 17:21	WG1272804	⁴ Cn	
(S) Toluene-d8	98.2			80.0-120		05/03/2019 15:19	WG1275623	⁵ Sr	
(S) 4-Bromofluorobenzene	103			77.0-126		04/27/2019 17:21	WG1272804	⁶ Qc	
(S) 4-Bromofluorobenzene	99.8			77.0-126		05/03/2019 15:19	WG1275623	⁷ Gl	
(S) 1,2-Dichloroethane-d4	96.1			70.0-130		04/27/2019 17:21	WG1272804	⁸ Al	
(S) 1,2-Dichloroethane-d4	99.3			70.0-130		05/03/2019 15:19	WG1275623	⁹ Sc	

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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	05/01/2019 16:40	WG1274492
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	93.8			78.0-120		05/01/2019 16:40	WG1274492

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Acetone	U		1.05	25.0	1	04/27/2019 17:41	WG1272804	
Acrylonitrile	U		0.873	5.00	1	04/27/2019 17:41	WG1272804	
Benzene	0.179	J	J	0.0896	0.500	1	04/27/2019 17:41	WG1272804
Bromobenzene	U		0.133	0.500	1	04/27/2019 17:41	WG1272804	
Bromodichloromethane	U		0.0800	0.500	1	04/27/2019 17:41	WG1272804	
Bromoform	U		0.145	0.500	1	04/27/2019 17:41	WG1272804	
Bromomethane	U	UJ	JO	0.157	2.50	1	04/27/2019 17:41	WG1272804
n-Butylbenzene	U		0.143	0.500	1	04/27/2019 17:41	WG1272804	
sec-Butylbenzene	U		0.134	0.500	1	04/27/2019 17:41	WG1272804	
tert-Butylbenzene	U		0.183	0.500	1	04/27/2019 17:41	WG1272804	
Carbon disulfide	U		0.101	0.500	1	04/27/2019 17:41	WG1272804	
Carbon tetrachloride	U		0.159	0.500	1	04/27/2019 17:41	WG1272804	
Chlorobenzene	U		0.140	0.500	1	04/27/2019 17:41	WG1272804	
Chlorodibromomethane	U		0.128	0.500	1	04/27/2019 17:41	WG1272804	
Chloroethane	U	UJ	JO	0.141	2.50	1	05/03/2019 15:39	WG1275623
Chloroform	U		0.0860	0.500	1	04/27/2019 17:41	WG1272804	
Chloromethane	U		0.153	1.25	1	04/27/2019 17:41	WG1272804	
2-Chlorotoluene	U		0.111	0.500	1	04/27/2019 17:41	WG1272804	
4-Chlorotoluene	U		0.0972	0.500	1	04/27/2019 17:41	WG1272804	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/27/2019 17:41	WG1272804	
1,2-Dibromoethane	U		0.193	0.500	1	04/27/2019 17:41	WG1272804	
Dibromomethane	U		0.117	0.500	1	04/27/2019 17:41	WG1272804	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/27/2019 17:41	WG1272804	
1,3-Dichlorobenzene	U		0.130	0.500	1	04/27/2019 17:41	WG1272804	
1,4-Dichlorobenzene	U		0.121	0.500	1	04/27/2019 17:41	WG1272804	
Dichlorodifluoromethane	U		0.127	2.50	1	04/27/2019 17:41	WG1272804	
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 15:39	WG1275623	
1,2-Dichloroethane	U		0.108	0.500	1	04/27/2019 17:41	WG1272804	
1,1-Dichloroethene	U		0.188	0.500	1	04/27/2019 17:41	WG1272804	
cis-1,2-Dichloroethene	1.23		0.0933	0.500	1	05/03/2019 15:39	WG1275623	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/27/2019 17:41	WG1272804	
1,2-Dichloropropane	U		0.190	0.500	1	04/27/2019 17:41	WG1272804	
1,1-Dichloropropene	U		0.128	0.500	1	04/27/2019 17:41	WG1272804	
1,3-Dichloropropane	U		0.147	1.00	1	04/27/2019 17:41	WG1272804	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/27/2019 17:41	WG1272804	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/27/2019 17:41	WG1272804	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/27/2019 17:41	WG1272804	
2,2-Dichloropropane	U		0.0929	0.500	1	04/27/2019 17:41	WG1272804	
Di-isopropyl ether	U		0.0924	0.500	1	04/27/2019 17:41	WG1272804	
Ethylbenzene	U		0.158	0.500	1	04/27/2019 17:41	WG1272804	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/27/2019 17:41	WG1272804	
2-Hexanone	U		0.757	5.00	1	04/27/2019 17:41	WG1272804	
n-Hexane	U		0.305	5.00	1	04/27/2019 17:41	WG1272804	
Iodomethane	U		0.377	10.0	1	04/27/2019 17:41	WG1272804	
Isopropylbenzene	U		0.126	0.500	1	04/27/2019 17:41	WG1272804	
p-Isopropyltoluene	U		0.138	0.500	1	04/27/2019 17:41	WG1272804	
2-Butanone (MEK)	U		1.28	5.00	1	04/27/2019 17:41	WG1272804	

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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	
Methylene Chloride	U		1.07	2.50	1	04/27/2019 17:41	WG1272804	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/27/2019 17:41	WG1272804	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	04/27/2019 17:41	WG1272804	³ Ss
Naphthalene	U		0.174	2.50	1	04/27/2019 17:41	WG1272804	⁴ Cn
n-Propylbenzene	U		0.162	0.500	1	04/27/2019 17:41	WG1272804	⁵ Sr
Styrene	U		0.117	0.500	1	04/27/2019 17:41	WG1272804	⁶ Qc
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/27/2019 17:41	WG1272804	⁷ Gl
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/27/2019 17:41	WG1272804	⁸ Al
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/27/2019 17:41	WG1272804	⁹ Sc
Tetrachloroethene	U		0.199	0.500	1	04/27/2019 17:41	WG1272804	
Toluene	U		0.412	0.500	1	04/27/2019 17:41	WG1272804	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/27/2019 17:41	WG1272804	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/27/2019 17:41	WG1272804	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 15:39	WG1275623	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/27/2019 17:41	WG1272804	
Trichloroethene	U		0.153	0.500	1	04/27/2019 17:41	WG1272804	
Trichlorofluoromethane	U	^{UJ} ^{JO}	0.130	2.50	1	04/27/2019 17:41	WG1272804	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/27/2019 17:41	WG1272804	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/27/2019 17:41	WG1272804	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/27/2019 17:41	WG1272804	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/27/2019 17:41	WG1272804	
Vinyl acetate	U		0.645	5.00	1	04/27/2019 17:41	WG1272804	
Vinyl chloride	1.03	^J ^{JO}	0.118	0.500	1	04/27/2019 17:41	WG1272804	
Xylenes, Total	U		0.316	1.50	1	04/27/2019 17:41	WG1272804	
(S) Toluene-d8	99.9			80.0-120		04/27/2019 17:41	WG1272804	
(S) Toluene-d8	102			80.0-120		05/03/2019 15:39	WG1275623	
(S) 4-Bromofluorobenzene	106			77.0-126		04/27/2019 17:41	WG1272804	
(S) 4-Bromofluorobenzene	103			77.0-126		05/03/2019 15:39	WG1275623	
(S) 1,2-Dichloroethane-d4	96.5			70.0-130		04/27/2019 17:41	WG1272804	
(S) 1,2-Dichloroethane-d4	102			70.0-130		05/03/2019 15:39	WG1275623	

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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	121	J+	31.6	100	1	05/01/2019 17:01	WG1274492
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	94.3			78.0-120		05/01/2019 17:01	WG1274492

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
Acetone	U		1.05	25.0	1	04/27/2019 18:01	WG1272804
Acrylonitrile	U		0.873	5.00	1	04/27/2019 18:01	WG1272804
Benzene	U		0.0896	0.500	1	04/27/2019 18:01	WG1272804
Bromobenzene	U		0.133	0.500	1	04/27/2019 18:01	WG1272804
Bromodichloromethane	U		0.0800	0.500	1	04/27/2019 18:01	WG1272804
Bromoform	U		0.145	0.500	1	04/27/2019 18:01	WG1272804
Bromomethane	U	UJ	0.157	2.50	1	04/27/2019 18:01	WG1272804
n-Butylbenzene	U		0.143	0.500	1	04/27/2019 18:01	WG1272804
sec-Butylbenzene	U		0.134	0.500	1	04/27/2019 18:01	WG1272804
tert-Butylbenzene	U		0.183	0.500	1	04/27/2019 18:01	WG1272804
Carbon disulfide	U		0.101	0.500	1	04/27/2019 18:01	WG1272804
Carbon tetrachloride	U		0.159	0.500	1	04/27/2019 18:01	WG1272804
Chlorobenzene	U		0.140	0.500	1	04/27/2019 18:01	WG1272804
Chlorodibromomethane	U		0.128	0.500	1	04/27/2019 18:01	WG1272804
Chloroethane	U	UJ	0.141	2.50	1	05/03/2019 16:00	WG1275623
Chloroform	U		0.0860	0.500	1	04/27/2019 18:01	WG1272804
Chloromethane	U		0.153	1.25	1	04/27/2019 18:01	WG1272804
2-Chlorotoluene	U		0.111	0.500	1	04/27/2019 18:01	WG1272804
4-Chlorotoluene	U		0.0972	0.500	1	04/27/2019 18:01	WG1272804
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	04/27/2019 18:01	WG1272804
1,2-Dibromoethane	U		0.193	0.500	1	04/27/2019 18:01	WG1272804
Dibromomethane	U		0.117	0.500	1	04/27/2019 18:01	WG1272804
1,2-Dichlorobenzene	U		0.101	0.500	1	04/27/2019 18:01	WG1272804
1,3-Dichlorobenzene	U		0.130	0.500	1	04/27/2019 18:01	WG1272804
1,4-Dichlorobenzene	U		0.121	0.500	1	04/27/2019 18:01	WG1272804
Dichlorodifluoromethane	U		0.127	2.50	1	04/27/2019 18:01	WG1272804
1,1-Dichloroethane	1.57		0.114	0.500	1	05/03/2019 16:00	WG1275623
1,2-Dichloroethane	0.229	J	0.108	0.500	1	04/27/2019 18:01	WG1272804
1,1-Dichloroethene	0.893		0.188	0.500	1	04/27/2019 18:01	WG1272804
cis-1,2-Dichloroethene	75.1		0.0933	0.500	1	04/27/2019 18:01	WG1272804
trans-1,2-Dichloroethene	0.261	J	0.152	0.500	1	04/27/2019 18:01	WG1272804
1,2-Dichloropropane	0.878		0.190	0.500	1	04/27/2019 18:01	WG1272804
1,1-Dichloropropene	U		0.128	0.500	1	04/27/2019 18:01	WG1272804
1,3-Dichloropropane	U		0.147	1.00	1	04/27/2019 18:01	WG1272804
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/27/2019 18:01	WG1272804
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/27/2019 18:01	WG1272804
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/27/2019 18:01	WG1272804
2,2-Dichloropropane	U		0.0929	0.500	1	04/27/2019 18:01	WG1272804
Di-isopropyl ether	U		0.0924	0.500	1	04/27/2019 18:01	WG1272804
Ethylbenzene	U		0.158	0.500	1	04/27/2019 18:01	WG1272804
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/27/2019 18:01	WG1272804
2-Hexanone	U		0.757	5.00	1	04/27/2019 18:01	WG1272804
n-Hexane	U		0.305	5.00	1	04/27/2019 18:01	WG1272804
Iodomethane	U		0.377	10.0	1	04/27/2019 18:01	WG1272804
Isopropylbenzene	U		0.126	0.500	1	04/27/2019 18:01	WG1272804
p-Isopropyltoluene	U		0.138	0.500	1	04/27/2019 18:01	WG1272804
2-Butanone (MEK)	U		1.28	5.00	1	04/27/2019 18:01	WG1272804

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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	
Methylene Chloride	U		1.07	2.50	1	04/27/2019 18:01	WG1272804	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	04/27/2019 18:01	WG1272804	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	04/27/2019 18:01	WG1272804	³ Ss
Naphthalene	U		0.174	2.50	1	04/27/2019 18:01	WG1272804	⁴ Cn
n-Propylbenzene	U		0.162	0.500	1	04/27/2019 18:01	WG1272804	⁵ Sr
Styrene	U		0.117	0.500	1	04/27/2019 18:01	WG1272804	⁶ Qc
1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/27/2019 18:01	WG1272804	⁷ Gl
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/27/2019 18:01	WG1272804	⁸ Al
1,1,2-Trichlorotrifluoroethane	0.465	J J	0.164	0.500	1	04/27/2019 18:01	WG1272804	⁹ Sc
Tetrachloroethene	157		0.199	0.500	1	04/27/2019 18:01	WG1272804	
Toluene	U		0.412	0.500	1	04/27/2019 18:01	WG1272804	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/27/2019 18:01	WG1272804	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/27/2019 18:01	WG1272804	
1,1,1-Trichloroethane	0.298	J J	0.0940	0.500	1	05/03/2019 16:00	WG1275623	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/27/2019 18:01	WG1272804	
Trichloroethene	45.2		0.153	0.500	1	04/27/2019 18:01	WG1272804	
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	04/27/2019 18:01	WG1272804	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/27/2019 18:01	WG1272804	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/27/2019 18:01	WG1272804	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/27/2019 18:01	WG1272804	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/27/2019 18:01	WG1272804	
Vinyl acetate	U		0.645	5.00	1	04/27/2019 18:01	WG1272804	
Vinyl chloride	0.861	UJ JO	0.118	0.500	1	04/27/2019 18:01	WG1272804	
Xylenes, Total	U		0.316	1.50	1	04/27/2019 18:01	WG1272804	
(S) Toluene-d8	98.3			80.0-120		04/27/2019 18:01	WG1272804	
(S) Toluene-d8	98.2			80.0-120		05/03/2019 16:00	WG1275623	
(S) 4-Bromofluorobenzene	103			77.0-126		04/27/2019 18:01	WG1272804	
(S) 4-Bromofluorobenzene	103			77.0-126		05/03/2019 16:00	WG1275623	
(S) 1,2-Dichloroethane-d4	93.7			70.0-130		04/27/2019 18:01	WG1272804	
(S) 1,2-Dichloroethane-d4	94.9			70.0-130		05/03/2019 16:00	WG1275623	

JC 5/13/19

ANALYTICAL REPORT

May 14, 2019

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

PES Environmental, Inc.- WA

Sample Delivery Group: L1094387
Samples Received: 05/02/2019
Project Number: 1413.001.05,601
Description: American Linen
Site: AMERICAN LINEN
Report To: Brian O'Neal/Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

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

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



				Collected by Ben Hecht	Collected date/time 04/29/19 08:45	Received date/time 05/02/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1275813	1	05/03/19 18:20	05/03/19 18:20	DWR	Mt. Juliet, TN
MW108-042919 L1094387-02 GW				Collected by Ben Hecht	Collected date/time 04/29/19 09:50	Received date/time 05/02/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1275813	1	05/03/19 18:41	05/03/19 18:41	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1276343	20	05/05/19 18:24	05/05/19 18:24	JAH	Mt. Juliet, TN
MW126-042919 L1094387-03 GW				Collected by Ben Hecht	Collected date/time 04/29/19 10:45	Received date/time 05/02/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1275813	1	05/03/19 19:01	05/03/19 19:01	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1276343	1	05/05/19 18:04	05/05/19 18:04	JAH	Mt. Juliet, TN
MW119-042919 L1094387-04 GW				Collected by Ben Hecht	Collected date/time 04/29/19 12:20	Received date/time 05/02/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1275813	1	05/03/19 19:21	05/03/19 19:21	DWR	Mt. Juliet, TN
MW121-042919 L1094387-05 GW				Collected by Ben Hecht	Collected date/time 04/29/19 13:35	Received date/time 05/02/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1275218	1	05/02/19 18:28	05/02/19 18:28	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1275813	1	05/03/19 19:41	05/03/19 19:41	DWR	Mt. Juliet, TN
MW-161-050119 L1094387-06 GW				Collected by Ben Hecht	Collected date/time 05/01/19 09:25	Received date/time 05/02/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1276578	1	05/07/19 19:50	05/07/19 19:50	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1274986	1	05/02/19 11:27	05/02/19 11:27	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1275023	1	05/02/19 21:22	05/02/19 21:22	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1275858	1	05/07/19 10:24	05/12/19 22:10	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1275218	1	05/02/19 18:52	05/02/19 18:52	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1277421	1	05/09/19 11:39	05/09/19 11:39	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1275813	1	05/03/19 20:01	05/03/19 20:01	DWR	Mt. Juliet, TN
MW107-050119 L1094387-07 GW				Collected by Ben Hecht	Collected date/time 05/01/19 11:10	Received date/time 05/02/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1276578	1	05/07/19 19:58	05/07/19 19:58	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1274986	1	05/02/19 12:24	05/02/19 12:24	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1275023	1	05/02/19 21:58	05/02/19 21:58	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1275858	1	05/07/19 10:24	05/12/19 22:15	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1275218	1	05/02/19 19:16	05/02/19 19:16	DWR	Mt. Juliet, TN

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

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW107-050119 L1094387-07 GW

Collected by
Ben Hecht
05/01/19 11:10
Received date/time
05/02/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method RSK175	WG1277421	1	05/09/19 11:43	05/09/19 11:43	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1278760	20	05/09/19 16:35	05/09/19 16:35	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1275813	1	05/03/19 20:21	05/03/19 20:21	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1276343	20	05/05/19 18:44	05/05/19 18:44	JAH	Mt. Juliet, TN

FMW-129-050119 L1094387-08 GW

Collected by
Ben Hecht
05/01/19 14:00
Received date/time
05/02/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1275813	1	05/03/19 20:42	05/03/19 20:42	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1276343	5	05/05/19 19:04	05/05/19 19:04	JAH	Mt. Juliet, TN

TRIP BLANK-050119 L1094387-09 GW

Collected by
Ben Hecht
05/01/19 00:00
Received date/time
05/02/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1275218	1	05/02/19 17:41	05/02/19 17:41	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1275813	1	05/03/19 17:00	05/03/19 17:00	DWR	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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 GI
- ⁸ AI
- 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	3.78	JJ4	1.05	25.0	1	05/03/2019 18:20	WG1275813	¹ Cp
Acrylonitrile	U		0.873	5.00	1	05/03/2019 18:20	WG1275813	² Tc
Benzene	U		0.0896	0.500	1	05/03/2019 18:20	WG1275813	³ Ss
Bromobenzene	U		0.133	0.500	1	05/03/2019 18:20	WG1275813	⁴ Cn
Bromodichloromethane	U		0.0800	0.500	1	05/03/2019 18:20	WG1275813	⁵ Sr
Bromoform	U		0.145	0.500	1	05/03/2019 18:20	WG1275813	⁶ Qc
Bromomethane	U		0.157	2.50	1	05/03/2019 18:20	WG1275813	⁷ Gl
n-Butylbenzene	U		0.143	0.500	1	05/03/2019 18:20	WG1275813	⁸ Al
sec-Butylbenzene	U		0.134	0.500	1	05/03/2019 18:20	WG1275813	⁹ Sc
tert-Butylbenzene	U		0.183	0.500	1	05/03/2019 18:20	WG1275813	
Carbon disulfide	U		0.101	0.500	1	05/03/2019 18:20	WG1275813	
Carbon tetrachloride	U		0.159	0.500	1	05/03/2019 18:20	WG1275813	
Chlorobenzene	U		0.140	0.500	1	05/03/2019 18:20	WG1275813	
Chlorodibromomethane	U		0.128	0.500	1	05/03/2019 18:20	WG1275813	
Chloroethane	U	J0	0.141	2.50	1	05/03/2019 18:20	WG1275813	
Chloroform	U		0.0860	0.500	1	05/03/2019 18:20	WG1275813	
Chloromethane	U	J0	0.153	1.25	1	05/03/2019 18:20	WG1275813	
2-Chlorotoluene	U		0.111	0.500	1	05/03/2019 18:20	WG1275813	
4-Chlorotoluene	U		0.0972	0.500	1	05/03/2019 18:20	WG1275813	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/03/2019 18:20	WG1275813	
1,2-Dibromoethane	U		0.193	0.500	1	05/03/2019 18:20	WG1275813	
Dibromomethane	U		0.117	0.500	1	05/03/2019 18:20	WG1275813	
1,2-Dichlorobenzene	U		0.101	0.500	1	05/03/2019 18:20	WG1275813	
1,3-Dichlorobenzene	U		0.130	0.500	1	05/03/2019 18:20	WG1275813	
1,4-Dichlorobenzene	U		0.121	0.500	1	05/03/2019 18:20	WG1275813	
Dichlorodifluoromethane	U		0.127	2.50	1	05/03/2019 18:20	WG1275813	
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 18:20	WG1275813	
1,2-Dichloroethane	U		0.108	0.500	1	05/03/2019 18:20	WG1275813	
1,1-Dichloroethene	U		0.188	0.500	1	05/03/2019 18:20	WG1275813	
cis-1,2-Dichloroethene	4.78		0.0933	0.500	1	05/03/2019 18:20	WG1275813	
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/03/2019 18:20	WG1275813	
1,2-Dichloropropane	U		0.190	0.500	1	05/03/2019 18:20	WG1275813	
1,1-Dichloropropene	U		0.128	0.500	1	05/03/2019 18:20	WG1275813	
1,3-Dichloropropane	U		0.147	1.00	1	05/03/2019 18:20	WG1275813	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/03/2019 18:20	WG1275813	
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/03/2019 18:20	WG1275813	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/03/2019 18:20	WG1275813	
2,2-Dichloropropane	U		0.0929	0.500	1	05/03/2019 18:20	WG1275813	
Di-isopropyl ether	U		0.0924	0.500	1	05/03/2019 18:20	WG1275813	
Ethylbenzene	U		0.158	0.500	1	05/03/2019 18:20	WG1275813	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/03/2019 18:20	WG1275813	
2-Hexanone	U		0.757	5.00	1	05/03/2019 18:20	WG1275813	
n-Hexane	U		0.305	5.00	1	05/03/2019 18:20	WG1275813	
Iodomethane	U		0.377	10.0	1	05/03/2019 18:20	WG1275813	
Isopropylbenzene	U		0.126	0.500	1	05/03/2019 18:20	WG1275813	
p-Isopropyltoluene	U		0.138	0.500	1	05/03/2019 18:20	WG1275813	
2-Butanone (MEK)	U		1.28	5.00	1	05/03/2019 18:20	WG1275813	
Methylene Chloride	U		1.07	2.50	1	05/03/2019 18:20	WG1275813	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/03/2019 18:20	WG1275813	
Methyl tert-butyl ether	U		0.102	0.500	1	05/03/2019 18:20	WG1275813	
Naphthalene	U	J0	0.174	2.50	1	05/03/2019 18:20	WG1275813	
n-Propylbenzene	U		0.162	0.500	1	05/03/2019 18:20	WG1275813	
Styrene	U		0.117	0.500	1	05/03/2019 18:20	WG1275813	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/03/2019 18:20	WG1275813	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/03/2019 18:20	WG1275813	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/03/2019 18:20	WG1275813	¹ Cp
Tetrachloroethene	U		0.199	0.500	1	05/03/2019 18:20	WG1275813	² Tc
Toluene	U		0.412	0.500	1	05/03/2019 18:20	WG1275813	³ Ss
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/03/2019 18:20	WG1275813	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/03/2019 18:20	WG1275813	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 18:20	WG1275813	
1,1,2-Trichloroethane	U		0.186	0.500	1	05/03/2019 18:20	WG1275813	
Trichloroethene	U		0.153	0.500	1	05/03/2019 18:20	WG1275813	
Trichlorofluoromethane	U	<u>J0</u>	0.130	2.50	1	05/03/2019 18:20	WG1275813	
1,2,3-Trichloropropane	U		0.247	2.50	1	05/03/2019 18:20	WG1275813	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/03/2019 18:20	WG1275813	⁶ Qc
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/03/2019 18:20	WG1275813	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/03/2019 18:20	WG1275813	
Vinyl acetate	U	<u>J0</u>	0.645	5.00	1	05/03/2019 18:20	WG1275813	⁷ GI
Vinyl chloride	3.06	<u>J0 J4</u>	0.118	0.500	1	05/03/2019 18:20	WG1275813	
Xylenes, Total	U		0.316	1.50	1	05/03/2019 18:20	WG1275813	⁸ AI
(S) Toluene-d8	98.4			80.0-120		05/03/2019 18:20	WG1275813	
(S) 4-Bromofluorobenzene	104			77.0-126		05/03/2019 18:20	WG1275813	
(S) 1,2-Dichloroethane-d4	95.8			70.0-130		05/03/2019 18:20	WG1275813	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	3.41	JJ4	1.05	25.0	1	05/03/2019 18:41	WG1275813	¹ Cp
Acrylonitrile	U		0.873	5.00	1	05/03/2019 18:41	WG1275813	² Tc
Benzene	3.20		0.0896	0.500	1	05/03/2019 18:41	WG1275813	³ Ss
Bromobenzene	U		0.133	0.500	1	05/03/2019 18:41	WG1275813	⁴ Cn
Bromodichloromethane	U		0.0800	0.500	1	05/03/2019 18:41	WG1275813	⁵ Sr
Bromoform	U		0.145	0.500	1	05/03/2019 18:41	WG1275813	⁶ Qc
Bromomethane	U		0.157	2.50	1	05/03/2019 18:41	WG1275813	⁷ Gl
n-Butylbenzene	U		0.143	0.500	1	05/03/2019 18:41	WG1275813	⁸ Al
sec-Butylbenzene	U		0.134	0.500	1	05/03/2019 18:41	WG1275813	⁹ Sc
tert-Butylbenzene	U		0.183	0.500	1	05/03/2019 18:41	WG1275813	
Carbon disulfide	U		0.101	0.500	1	05/03/2019 18:41	WG1275813	
Carbon tetrachloride	U		0.159	0.500	1	05/03/2019 18:41	WG1275813	
Chlorobenzene	U		0.140	0.500	1	05/03/2019 18:41	WG1275813	
Chlorodibromomethane	U		0.128	0.500	1	05/03/2019 18:41	WG1275813	
Chloroethane	U	J0	0.141	2.50	1	05/03/2019 18:41	WG1275813	
Chloroform	U		0.0860	0.500	1	05/03/2019 18:41	WG1275813	
Chloromethane	U	J0	0.153	1.25	1	05/03/2019 18:41	WG1275813	
2-Chlorotoluene	U		0.111	0.500	1	05/03/2019 18:41	WG1275813	
4-Chlorotoluene	U		0.0972	0.500	1	05/03/2019 18:41	WG1275813	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/03/2019 18:41	WG1275813	
1,2-Dibromoethane	U		0.193	0.500	1	05/03/2019 18:41	WG1275813	
Dibromomethane	U		0.117	0.500	1	05/03/2019 18:41	WG1275813	
1,2-Dichlorobenzene	U		0.101	0.500	1	05/03/2019 18:41	WG1275813	
1,3-Dichlorobenzene	U		0.130	0.500	1	05/03/2019 18:41	WG1275813	
1,4-Dichlorobenzene	U		0.121	0.500	1	05/03/2019 18:41	WG1275813	
Dichlorodifluoromethane	U		0.127	2.50	1	05/03/2019 18:41	WG1275813	
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 18:41	WG1275813	
1,2-Dichloroethane	U		0.108	0.500	1	05/03/2019 18:41	WG1275813	
1,1-Dichloroethene	3.57		0.188	0.500	1	05/03/2019 18:41	WG1275813	
cis-1,2-Dichloroethene	970		1.87	10.0	20	05/05/2019 18:24	WG1276343	
trans-1,2-Dichloroethene	3.22		0.152	0.500	1	05/03/2019 18:41	WG1275813	
1,2-Dichloropropane	U		0.190	0.500	1	05/03/2019 18:41	WG1275813	
1,1-Dichloropropene	U		0.128	0.500	1	05/03/2019 18:41	WG1275813	
1,3-Dichloropropane	U		0.147	1.00	1	05/03/2019 18:41	WG1275813	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/03/2019 18:41	WG1275813	
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/03/2019 18:41	WG1275813	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/03/2019 18:41	WG1275813	
2,2-Dichloropropane	U		0.0929	0.500	1	05/03/2019 18:41	WG1275813	
Di-isopropyl ether	U		0.0924	0.500	1	05/03/2019 18:41	WG1275813	
Ethylbenzene	U		0.158	0.500	1	05/03/2019 18:41	WG1275813	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/03/2019 18:41	WG1275813	
2-Hexanone	U		0.757	5.00	1	05/03/2019 18:41	WG1275813	
n-Hexane	U		0.305	5.00	1	05/03/2019 18:41	WG1275813	
Iodomethane	U		0.377	10.0	1	05/03/2019 18:41	WG1275813	
Isopropylbenzene	U		0.126	0.500	1	05/03/2019 18:41	WG1275813	
p-Isopropyltoluene	U		0.138	0.500	1	05/03/2019 18:41	WG1275813	
2-Butanone (MEK)	U		1.28	5.00	1	05/03/2019 18:41	WG1275813	
Methylene Chloride	U		1.07	2.50	1	05/03/2019 18:41	WG1275813	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/03/2019 18:41	WG1275813	
Methyl tert-butyl ether	U		0.102	0.500	1	05/03/2019 18:41	WG1275813	
Naphthalene	U	J0	0.174	2.50	1	05/03/2019 18:41	WG1275813	
n-Propylbenzene	U		0.162	0.500	1	05/03/2019 18:41	WG1275813	
Styrene	U		0.117	0.500	1	05/03/2019 18:41	WG1275813	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/03/2019 18:41	WG1275813	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/03/2019 18:41	WG1275813	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/03/2019 18:41	WG1275813	¹ Cp
Tetrachloroethene	419		3.98	10.0	20	05/05/2019 18:24	WG1276343	² Tc
Toluene	U		0.412	0.500	1	05/03/2019 18:41	WG1275813	³ Ss
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/03/2019 18:41	WG1275813	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/03/2019 18:41	WG1275813	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 18:41	WG1275813	
1,1,2-Trichloroethane	U		0.186	0.500	1	05/03/2019 18:41	WG1275813	
Trichloroethene	171		0.153	0.500	1	05/03/2019 18:41	WG1275813	
Trichlorofluoromethane	U	<u>J0</u>	0.130	2.50	1	05/03/2019 18:41	WG1275813	
1,2,3-Trichloropropane	U		0.247	2.50	1	05/03/2019 18:41	WG1275813	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/03/2019 18:41	WG1275813	⁶ Qc
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/03/2019 18:41	WG1275813	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/03/2019 18:41	WG1275813	
Vinyl acetate	U	<u>J0</u>	0.645	5.00	1	05/03/2019 18:41	WG1275813	
Vinyl chloride	125	<u>J0 J4</u>	0.118	0.500	1	05/03/2019 18:41	WG1275813	
Xylenes, Total	U		0.316	1.50	1	05/03/2019 18:41	WG1275813	
(S) Toluene-d8	99.2			80.0-120		05/03/2019 18:41	WG1275813	
(S) Toluene-d8	96.9			80.0-120		05/05/2019 18:24	WG1276343	
(S) 4-Bromofluorobenzene	106			77.0-126		05/03/2019 18:41	WG1275813	
(S) 4-Bromofluorobenzene	101			77.0-126		05/05/2019 18:24	WG1276343	
(S) 1,2-Dichloroethane-d4	95.3			70.0-130		05/03/2019 18:41	WG1275813	
(S) 1,2-Dichloroethane-d4	94.4			70.0-130		05/05/2019 18:24	WG1276343	



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	2.18	JJ4	1.05	25.0	1	05/03/2019 19:01	WG1275813	¹ Cp
Acrylonitrile	U		0.873	5.00	1	05/03/2019 19:01	WG1275813	² Tc
Benzene	U		0.0896	0.500	1	05/03/2019 19:01	WG1275813	³ Ss
Bromobenzene	U		0.133	0.500	1	05/03/2019 19:01	WG1275813	⁴ Cn
Bromodichloromethane	U		0.0800	0.500	1	05/03/2019 19:01	WG1275813	⁵ Sr
Bromoform	U		0.145	0.500	1	05/03/2019 19:01	WG1275813	⁶ Qc
Bromomethane	U		0.157	2.50	1	05/03/2019 19:01	WG1275813	⁷ Gl
n-Butylbenzene	U		0.143	0.500	1	05/03/2019 19:01	WG1275813	⁸ Al
sec-Butylbenzene	U		0.134	0.500	1	05/03/2019 19:01	WG1275813	⁹ Sc
tert-Butylbenzene	U		0.183	0.500	1	05/03/2019 19:01	WG1275813	
Carbon disulfide	U		0.101	0.500	1	05/03/2019 19:01	WG1275813	
Carbon tetrachloride	U		0.159	0.500	1	05/03/2019 19:01	WG1275813	
Chlorobenzene	U		0.140	0.500	1	05/03/2019 19:01	WG1275813	
Chlorodibromomethane	U		0.128	0.500	1	05/03/2019 19:01	WG1275813	
Chloroethane	U	J0	0.141	2.50	1	05/03/2019 19:01	WG1275813	
Chloroform	U		0.0860	0.500	1	05/03/2019 19:01	WG1275813	
Chloromethane	U	J0	0.153	1.25	1	05/03/2019 19:01	WG1275813	
2-Chlorotoluene	U		0.111	0.500	1	05/03/2019 19:01	WG1275813	
4-Chlorotoluene	U		0.0972	0.500	1	05/03/2019 19:01	WG1275813	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/03/2019 19:01	WG1275813	
1,2-Dibromoethane	U		0.193	0.500	1	05/03/2019 19:01	WG1275813	
Dibromomethane	U		0.117	0.500	1	05/03/2019 19:01	WG1275813	
1,2-Dichlorobenzene	U		0.101	0.500	1	05/03/2019 19:01	WG1275813	
1,3-Dichlorobenzene	U		0.130	0.500	1	05/03/2019 19:01	WG1275813	
1,4-Dichlorobenzene	U		0.121	0.500	1	05/03/2019 19:01	WG1275813	
Dichlorodifluoromethane	U		0.127	2.50	1	05/03/2019 19:01	WG1275813	
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 19:01	WG1275813	
1,2-Dichloroethane	U		0.108	0.500	1	05/03/2019 19:01	WG1275813	
1,1-Dichloroethene	U		0.188	0.500	1	05/03/2019 19:01	WG1275813	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/03/2019 19:01	WG1276343	
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/03/2019 19:01	WG1275813	
1,2-Dichloropropane	U		0.190	0.500	1	05/03/2019 19:01	WG1275813	
1,1-Dichloropropene	U		0.128	0.500	1	05/03/2019 19:01	WG1275813	
1,3-Dichloropropane	U		0.147	1.00	1	05/03/2019 19:01	WG1275813	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/03/2019 19:01	WG1275813	
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/03/2019 19:01	WG1275813	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/03/2019 19:01	WG1275813	
2,2-Dichloropropane	U		0.0929	0.500	1	05/03/2019 19:01	WG1275813	
Di-isopropyl ether	U		0.0924	0.500	1	05/03/2019 19:01	WG1275813	
Ethylbenzene	U		0.158	0.500	1	05/03/2019 19:01	WG1275813	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/03/2019 19:01	WG1275813	
2-Hexanone	U		0.757	5.00	1	05/03/2019 19:01	WG1275813	
n-Hexane	U		0.305	5.00	1	05/03/2019 19:01	WG1275813	
Iodomethane	U		0.377	10.0	1	05/03/2019 19:01	WG1275813	
Isopropylbenzene	U		0.126	0.500	1	05/03/2019 19:01	WG1275813	
p-Isopropyltoluene	U		0.138	0.500	1	05/03/2019 19:01	WG1275813	
2-Butanone (MEK)	U		1.28	5.00	1	05/03/2019 19:01	WG1275813	
Methylene Chloride	U		1.07	2.50	1	05/03/2019 19:01	WG1275813	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/03/2019 19:01	WG1275813	
Methyl tert-butyl ether	U		0.102	0.500	1	05/03/2019 19:01	WG1275813	
Naphthalene	U	J0	0.174	2.50	1	05/03/2019 19:01	WG1275813	
n-Propylbenzene	U		0.162	0.500	1	05/03/2019 19:01	WG1275813	
Styrene	U		0.117	0.500	1	05/03/2019 19:01	WG1275813	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/03/2019 19:01	WG1275813	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/03/2019 19:01	WG1275813	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/03/2019 19:01	WG1275813	¹ Cp
Tetrachloroethene	U		0.199	0.500	1	05/05/2019 18:04	WG1276343	² Tc
Toluene	U		0.412	0.500	1	05/03/2019 19:01	WG1275813	³ Ss
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/03/2019 19:01	WG1275813	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/03/2019 19:01	WG1275813	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 19:01	WG1275813	
1,1,2-Trichloroethane	U		0.186	0.500	1	05/03/2019 19:01	WG1275813	
Trichloroethene	U		0.153	0.500	1	05/03/2019 19:01	WG1275813	
Trichlorofluoromethane	U	<u>J0</u>	0.130	2.50	1	05/03/2019 19:01	WG1275813	
1,2,3-Trichloropropane	U		0.247	2.50	1	05/03/2019 19:01	WG1275813	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/03/2019 19:01	WG1275813	⁶ Qc
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/03/2019 19:01	WG1275813	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/03/2019 19:01	WG1275813	
Vinyl acetate	U	<u>J0</u>	0.645	5.00	1	05/03/2019 19:01	WG1275813	⁷ GI
Vinyl chloride	U	<u>J0 J4</u>	0.118	0.500	1	05/03/2019 19:01	WG1275813	
Xylenes, Total	U		0.316	1.50	1	05/03/2019 19:01	WG1275813	⁸ AI
(S) Toluene-d8	98.8			80.0-120		05/03/2019 19:01	WG1275813	
(S) Toluene-d8	97.5			80.0-120		05/05/2019 18:04	WG1276343	
(S) 4-Bromofluorobenzene	103			77.0-126		05/03/2019 19:01	WG1275813	
(S) 4-Bromofluorobenzene	101			77.0-126		05/05/2019 18:04	WG1276343	
(S) 1,2-Dichloroethane-d4	98.5			70.0-130		05/03/2019 19:01	WG1275813	
(S) 1,2-Dichloroethane-d4	94.4			70.0-130		05/05/2019 18:04	WG1276343	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	1.90	J J4	1.05	25.0	1	05/03/2019 19:21	WG1275813	¹ Cp
Acrylonitrile	U		0.873	5.00	1	05/03/2019 19:21	WG1275813	² Tc
Benzene	U		0.0896	0.500	1	05/03/2019 19:21	WG1275813	³ Ss
Bromobenzene	U		0.133	0.500	1	05/03/2019 19:21	WG1275813	⁴ Cn
Bromodichloromethane	U		0.0800	0.500	1	05/03/2019 19:21	WG1275813	⁵ Sr
Bromoform	U		0.145	0.500	1	05/03/2019 19:21	WG1275813	⁶ Qc
Bromomethane	U		0.157	2.50	1	05/03/2019 19:21	WG1275813	⁷ Gl
n-Butylbenzene	U		0.143	0.500	1	05/03/2019 19:21	WG1275813	⁸ Al
sec-Butylbenzene	U		0.134	0.500	1	05/03/2019 19:21	WG1275813	⁹ Sc
tert-Butylbenzene	U		0.183	0.500	1	05/03/2019 19:21	WG1275813	
Carbon disulfide	U		0.101	0.500	1	05/03/2019 19:21	WG1275813	
Carbon tetrachloride	U		0.159	0.500	1	05/03/2019 19:21	WG1275813	
Chlorobenzene	U		0.140	0.500	1	05/03/2019 19:21	WG1275813	
Chlorodibromomethane	U		0.128	0.500	1	05/03/2019 19:21	WG1275813	
Chloroethane	U	J0	0.141	2.50	1	05/03/2019 19:21	WG1275813	
Chloroform	U		0.0860	0.500	1	05/03/2019 19:21	WG1275813	
Chloromethane	U	J0	0.153	1.25	1	05/03/2019 19:21	WG1275813	
2-Chlorotoluene	U		0.111	0.500	1	05/03/2019 19:21	WG1275813	
4-Chlorotoluene	U		0.0972	0.500	1	05/03/2019 19:21	WG1275813	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/03/2019 19:21	WG1275813	
1,2-Dibromoethane	U		0.193	0.500	1	05/03/2019 19:21	WG1275813	
Dibromomethane	U		0.117	0.500	1	05/03/2019 19:21	WG1275813	
1,2-Dichlorobenzene	U		0.101	0.500	1	05/03/2019 19:21	WG1275813	
1,3-Dichlorobenzene	U		0.130	0.500	1	05/03/2019 19:21	WG1275813	
1,4-Dichlorobenzene	U		0.121	0.500	1	05/03/2019 19:21	WG1275813	
Dichlorodifluoromethane	U		0.127	2.50	1	05/03/2019 19:21	WG1275813	
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 19:21	WG1275813	
1,2-Dichloroethane	U		0.108	0.500	1	05/03/2019 19:21	WG1275813	
1,1-Dichloroethene	U		0.188	0.500	1	05/03/2019 19:21	WG1275813	
cis-1,2-Dichloroethene	10.9		0.0933	0.500	1	05/03/2019 19:21	WG1275813	
trans-1,2-Dichloroethene	0.161	J	0.152	0.500	1	05/03/2019 19:21	WG1275813	
1,2-Dichloropropane	U		0.190	0.500	1	05/03/2019 19:21	WG1275813	
1,1-Dichloropropene	U		0.128	0.500	1	05/03/2019 19:21	WG1275813	
1,3-Dichloropropane	U		0.147	1.00	1	05/03/2019 19:21	WG1275813	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/03/2019 19:21	WG1275813	
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/03/2019 19:21	WG1275813	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/03/2019 19:21	WG1275813	
2,2-Dichloropropane	U		0.0929	0.500	1	05/03/2019 19:21	WG1275813	
Di-isopropyl ether	U		0.0924	0.500	1	05/03/2019 19:21	WG1275813	
Ethylbenzene	U		0.158	0.500	1	05/03/2019 19:21	WG1275813	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/03/2019 19:21	WG1275813	
2-Hexanone	U		0.757	5.00	1	05/03/2019 19:21	WG1275813	
n-Hexane	U		0.305	5.00	1	05/03/2019 19:21	WG1275813	
Iodomethane	U		0.377	10.0	1	05/03/2019 19:21	WG1275813	
Isopropylbenzene	U		0.126	0.500	1	05/03/2019 19:21	WG1275813	
p-Isopropyltoluene	U		0.138	0.500	1	05/03/2019 19:21	WG1275813	
2-Butanone (MEK)	U		1.28	5.00	1	05/03/2019 19:21	WG1275813	
Methylene Chloride	U		1.07	2.50	1	05/03/2019 19:21	WG1275813	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/03/2019 19:21	WG1275813	
Methyl tert-butyl ether	U		0.102	0.500	1	05/03/2019 19:21	WG1275813	
Naphthalene	U	J0	0.174	2.50	1	05/03/2019 19:21	WG1275813	
n-Propylbenzene	U		0.162	0.500	1	05/03/2019 19:21	WG1275813	
Styrene	U		0.117	0.500	1	05/03/2019 19:21	WG1275813	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/03/2019 19:21	WG1275813	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/03/2019 19:21	WG1275813	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/03/2019 19:21	WG1275813	¹ Cp
Tetrachloroethene	0.224	J	0.199	0.500	1	05/03/2019 19:21	WG1275813	² Tc
Toluene	U		0.412	0.500	1	05/03/2019 19:21	WG1275813	³ Ss
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/03/2019 19:21	WG1275813	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/03/2019 19:21	WG1275813	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 19:21	WG1275813	
1,1,2-Trichloroethane	U		0.186	0.500	1	05/03/2019 19:21	WG1275813	
Trichloroethene	1.12		0.153	0.500	1	05/03/2019 19:21	WG1275813	
Trichlorofluoromethane	U	J0	0.130	2.50	1	05/03/2019 19:21	WG1275813	
1,2,3-Trichloropropane	U		0.247	2.50	1	05/03/2019 19:21	WG1275813	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/03/2019 19:21	WG1275813	⁶ Qc
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/03/2019 19:21	WG1275813	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/03/2019 19:21	WG1275813	
Vinyl acetate	U	J0	0.645	5.00	1	05/03/2019 19:21	WG1275813	⁷ GI
Vinyl chloride	U	J0 J4	0.118	0.500	1	05/03/2019 19:21	WG1275813	
Xylenes, Total	U		0.316	1.50	1	05/03/2019 19:21	WG1275813	⁸ AI
(S) Toluene-d8	98.2			80.0-120		05/03/2019 19:21	WG1275813	
(S) 4-Bromofluorobenzene	103			77.0-126		05/03/2019 19:21	WG1275813	
(S) 1,2-Dichloroethane-d4	96.1			70.0-130		05/03/2019 19:21	WG1275813	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	05/02/2019 18:28	WG1275218
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	98.1			78.0-120		05/02/2019 18:28	WG1275218

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
Acetone	4.49	<u>JJ4</u>	1.05	25.0	1	05/03/2019 19:41	WG1275813
Acrylonitrile	U		0.873	5.00	1	05/03/2019 19:41	WG1275813
Benzene	U		0.0896	0.500	1	05/03/2019 19:41	WG1275813
Bromobenzene	U		0.133	0.500	1	05/03/2019 19:41	WG1275813
Bromodichloromethane	U		0.0800	0.500	1	05/03/2019 19:41	WG1275813
Bromoform	U		0.145	0.500	1	05/03/2019 19:41	WG1275813
Bromomethane	U		0.186	0.500	1	05/03/2019 19:41	WG1275813
n-Butylbenzene	U		0.143	0.500	1	05/03/2019 19:41	WG1275813
sec-Butylbenzene	U		0.134	0.500	1	05/03/2019 19:41	WG1275813
tert-Butylbenzene	U		0.183	0.500	1	05/03/2019 19:41	WG1275813
Carbon disulfide	U		0.101	0.500	1	05/03/2019 19:41	WG1275813
Carbon tetrachloride	U		0.159	0.500	1	05/03/2019 19:41	WG1275813
Chlorobenzene	U		0.140	0.500	1	05/03/2019 19:41	WG1275813
Chlorodibromomethane	U		0.128	0.500	1	05/03/2019 19:41	WG1275813
Chloroethane	U	<u>JO</u>	0.141	2.50	1	05/03/2019 19:41	WG1275813
Chloroform	U		0.0860	0.500	1	05/03/2019 19:41	WG1275813
Chloromethane	U	<u>JO</u>	0.153	1.25	1	05/03/2019 19:41	WG1275813
2-Chlorotoluene	U		0.111	0.500	1	05/03/2019 19:41	WG1275813
4-Chlorotoluene	U		0.0972	0.500	1	05/03/2019 19:41	WG1275813
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/03/2019 19:41	WG1275813
1,2-Dibromoethane	U		0.193	0.500	1	05/03/2019 19:41	WG1275813
Dibromomethane	U		0.117	0.500	1	05/03/2019 19:41	WG1275813
1,2-Dichlorobenzene	U		0.101	0.500	1	05/03/2019 19:41	WG1275813
1,3-Dichlorobenzene	U		0.130	0.500	1	05/03/2019 19:41	WG1275813
1,4-Dichlorobenzene	U		0.121	0.500	1	05/03/2019 19:41	WG1275813
Dichlorodifluoromethane	U		0.127	2.50	1	05/03/2019 19:41	WG1275813
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 19:41	WG1275813
1,2-Dichloroethane	U		0.108	0.500	1	05/03/2019 19:41	WG1275813
1,1-Dichloroethene	U		0.188	0.500	1	05/03/2019 19:41	WG1275813
cis-1,2-Dichloroethene	5.39		0.0933	0.500	1	05/03/2019 19:41	WG1275813
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/03/2019 19:41	WG1275813
1,2-Dichloropropane	U		0.190	0.500	1	05/03/2019 19:41	WG1275813
1,1-Dichloropropene	U		0.128	0.500	1	05/03/2019 19:41	WG1275813
1,3-Dichloropropane	U		0.147	1.00	1	05/03/2019 19:41	WG1275813
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/03/2019 19:41	WG1275813
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/03/2019 19:41	WG1275813
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/03/2019 19:41	WG1275813
2,2-Dichloropropane	U		0.0929	0.500	1	05/03/2019 19:41	WG1275813
Di-isopropyl ether	U		0.0924	0.500	1	05/03/2019 19:41	WG1275813
Ethylbenzene	U		0.158	0.500	1	05/03/2019 19:41	WG1275813
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/03/2019 19:41	WG1275813
2-Hexanone	U		0.757	5.00	1	05/03/2019 19:41	WG1275813
n-Hexane	U		0.305	5.00	1	05/03/2019 19:41	WG1275813
Iodomethane	U		0.377	10.0	1	05/03/2019 19:41	WG1275813
Isopropylbenzene	U		0.126	0.500	1	05/03/2019 19:41	WG1275813
p-Isopropyltoluene	U		0.138	0.500	1	05/03/2019 19:41	WG1275813
2-Butanone (MEK)	U		1.28	5.00	1	05/03/2019 19:41	WG1275813



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	05/03/2019 19:41	WG1275813	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/03/2019 19:41	WG1275813	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	05/03/2019 19:41	WG1275813	³ Ss
Naphthalene	U	<u>J0</u>	0.174	2.50	1	05/03/2019 19:41	WG1275813	⁴ Cn
n-Propylbenzene	U		0.162	0.500	1	05/03/2019 19:41	WG1275813	⁵ Sr
Styrene	U		0.117	0.500	1	05/03/2019 19:41	WG1275813	⁶ Qc
1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/03/2019 19:41	WG1275813	⁷ Gl
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/03/2019 19:41	WG1275813	⁸ Al
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/03/2019 19:41	WG1275813	⁹ Sc
Tetrachloroethene	U		0.199	0.500	1	05/03/2019 19:41	WG1275813	
Toluene	U		0.412	0.500	1	05/03/2019 19:41	WG1275813	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/03/2019 19:41	WG1275813	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/03/2019 19:41	WG1275813	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 19:41	WG1275813	
1,1,2-Trichloroethane	U		0.186	0.500	1	05/03/2019 19:41	WG1275813	
Trichloroethene	U		0.153	0.500	1	05/03/2019 19:41	WG1275813	
Trichlorofluoromethane	U	<u>J0</u>	0.130	2.50	1	05/03/2019 19:41	WG1275813	
1,2,3-Trichloropropane	U		0.247	2.50	1	05/03/2019 19:41	WG1275813	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/03/2019 19:41	WG1275813	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/03/2019 19:41	WG1275813	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/03/2019 19:41	WG1275813	
Vinyl acetate	U	<u>J0</u>	0.645	5.00	1	05/03/2019 19:41	WG1275813	
Vinyl chloride	15.2	<u>J0 J4</u>	0.118	0.500	1	05/03/2019 19:41	WG1275813	
Xylenes, Total	U		0.316	1.50	1	05/03/2019 19:41	WG1275813	
(S) Toluene-d8	96.6			80.0-120		05/03/2019 19:41	WG1275813	
(S) 4-Bromofluorobenzene	101			77.0-126		05/03/2019 19:41	WG1275813	
(S) 1,2-Dichloroethane-d4	96.1			70.0-130		05/03/2019 19:41	WG1275813	



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	293000		2710	20000	1	05/07/2019 19:50	WG1276578

Sample Narrative:

L1094387-06 WG1276578: Endpoint pH 4.5

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	25500		51.9	1000	1	05/02/2019 11:27	WG1274986
Nitrate	U		22.7	100	1	05/02/2019 11:27	WG1274986
Sulfate	12200		77.4	5000	1	05/02/2019 11:27	WG1274986

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	1580	<u>B</u>	102	1000	1	05/02/2019 21:22	WG1275023

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	5730		15.0	100	1	05/12/2019 22:10	WG1275858
Manganese	795		0.250	5.00	1	05/12/2019 22:10	WG1275858

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	05/02/2019 18:52	WG1275218
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	98.6			78.0-120		05/02/2019 18:52	WG1275218

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	98.1		0.287	0.678	1	05/09/2019 11:39	WG1277421
Ethane	U		0.296	1.29	1	05/09/2019 11:39	WG1277421
Ethene	U		0.422	1.27	1	05/09/2019 11:39	WG1277421

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	1.21	<u>JJ4</u>	1.05	25.0	1	05/03/2019 20:01	WG1275813
Acrylonitrile	U		0.873	5.00	1	05/03/2019 20:01	WG1275813
Benzene	U		0.0896	0.500	1	05/03/2019 20:01	WG1275813
Bromobenzene	U		0.133	0.500	1	05/03/2019 20:01	WG1275813
Bromodichloromethane	U		0.0800	0.500	1	05/03/2019 20:01	WG1275813
Bromochloromethane	U		0.145	0.500	1	05/03/2019 20:01	WG1275813
Bromoform	U		0.186	0.500	1	05/03/2019 20:01	WG1275813
Bromomethane	U		0.157	2.50	1	05/03/2019 20:01	WG1275813
n-Butylbenzene	U		0.143	0.500	1	05/03/2019 20:01	WG1275813
sec-Butylbenzene	U		0.134	0.500	1	05/03/2019 20:01	WG1275813
tert-Butylbenzene	U		0.183	0.500	1	05/03/2019 20:01	WG1275813
Carbon disulfide	U		0.101	0.500	1	05/03/2019 20:01	WG1275813
Carbon tetrachloride	U		0.159	0.500	1	05/03/2019 20:01	WG1275813



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	05/03/2019 20:01	WG1275813
Chlorodibromomethane	U		0.128	0.500	1	05/03/2019 20:01	WG1275813
Chloroethane	U	<u>J0</u>	0.141	2.50	1	05/03/2019 20:01	WG1275813
Chloroform	U		0.0860	0.500	1	05/03/2019 20:01	WG1275813
Chloromethane	U	<u>J0</u>	0.153	1.25	1	05/03/2019 20:01	WG1275813
2-Chlorotoluene	U		0.111	0.500	1	05/03/2019 20:01	WG1275813
4-Chlorotoluene	U		0.0972	0.500	1	05/03/2019 20:01	WG1275813
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/03/2019 20:01	WG1275813
1,2-Dibromoethane	U		0.193	0.500	1	05/03/2019 20:01	WG1275813
Dibromomethane	U		0.117	0.500	1	05/03/2019 20:01	WG1275813
1,2-Dichlorobenzene	U		0.101	0.500	1	05/03/2019 20:01	WG1275813
1,3-Dichlorobenzene	U		0.130	0.500	1	05/03/2019 20:01	WG1275813
1,4-Dichlorobenzene	U		0.121	0.500	1	05/03/2019 20:01	WG1275813
Dichlorodifluoromethane	U		0.127	2.50	1	05/03/2019 20:01	WG1275813
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 20:01	WG1275813
1,2-Dichloroethane	U		0.108	0.500	1	05/03/2019 20:01	WG1275813
1,1-Dichloroethene	0.517		0.188	0.500	1	05/03/2019 20:01	WG1275813
cis-1,2-Dichloroethene	1.15		0.0933	0.500	1	05/03/2019 20:01	WG1275813
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/03/2019 20:01	WG1275813
1,2-Dichloropropane	U		0.190	0.500	1	05/03/2019 20:01	WG1275813
1,1-Dichloropropene	U		0.128	0.500	1	05/03/2019 20:01	WG1275813
1,3-Dichloropropane	U		0.147	1.00	1	05/03/2019 20:01	WG1275813
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/03/2019 20:01	WG1275813
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/03/2019 20:01	WG1275813
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/03/2019 20:01	WG1275813
2,2-Dichloropropane	U		0.0929	0.500	1	05/03/2019 20:01	WG1275813
Di-isopropyl ether	U		0.0924	0.500	1	05/03/2019 20:01	WG1275813
Ethylbenzene	U		0.158	0.500	1	05/03/2019 20:01	WG1275813
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/03/2019 20:01	WG1275813
2-Hexanone	U		0.757	5.00	1	05/03/2019 20:01	WG1275813
n-Hexane	U		0.305	5.00	1	05/03/2019 20:01	WG1275813
Iodomethane	U		0.377	10.0	1	05/03/2019 20:01	WG1275813
Isopropylbenzene	U		0.126	0.500	1	05/03/2019 20:01	WG1275813
p-Isopropyltoluene	U		0.138	0.500	1	05/03/2019 20:01	WG1275813
2-Butanone (MEK)	U		1.28	5.00	1	05/03/2019 20:01	WG1275813
Methylene Chloride	U		1.07	2.50	1	05/03/2019 20:01	WG1275813
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/03/2019 20:01	WG1275813
Methyl tert-butyl ether	U		0.102	0.500	1	05/03/2019 20:01	WG1275813
Naphthalene	U	<u>J0</u>	0.174	2.50	1	05/03/2019 20:01	WG1275813
n-Propylbenzene	U		0.162	0.500	1	05/03/2019 20:01	WG1275813
Styrene	U		0.117	0.500	1	05/03/2019 20:01	WG1275813
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/03/2019 20:01	WG1275813
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/03/2019 20:01	WG1275813
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/03/2019 20:01	WG1275813
Tetrachloroethene	0.482	<u>J</u>	0.199	0.500	1	05/03/2019 20:01	WG1275813
Toluene	U		0.412	0.500	1	05/03/2019 20:01	WG1275813
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/03/2019 20:01	WG1275813
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/03/2019 20:01	WG1275813
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 20:01	WG1275813
1,1,2-Trichloroethane	U		0.186	0.500	1	05/03/2019 20:01	WG1275813
Trichloroethene	1.66		0.153	0.500	1	05/03/2019 20:01	WG1275813
Trichlorofluoromethane	U	<u>J0</u>	0.130	2.50	1	05/03/2019 20:01	WG1275813
1,2,3-Trichloropropane	U		0.247	2.50	1	05/03/2019 20:01	WG1275813
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/03/2019 20:01	WG1275813
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/03/2019 20:01	WG1275813
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/03/2019 20:01	WG1275813

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

MW-161-050119

Collected date/time: 05/01/19 09:25

SAMPLE RESULTS - 06

L1094387

ONE LAB. NATIONWIDE.



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Vinyl acetate	U	<u>J0</u>	0.645	5.00	1	05/03/2019 20:01	<u>WG1275813</u>	¹ Cp
Vinyl chloride	U	<u>J0 J4</u>	0.118	0.500	1	05/03/2019 20:01	<u>WG1275813</u>	² Tc
Xylenes, Total	U		0.316	1.50	1	05/03/2019 20:01	<u>WG1275813</u>	³ Ss
(S) Toluene-d8	99.3			80.0-120		05/03/2019 20:01	<u>WG1275813</u>	⁴ Cn
(S) 4-Bromofluorobenzene	102			77.0-126		05/03/2019 20:01	<u>WG1275813</u>	⁵ Sr
(S) 1,2-Dichloroethane-d4	99.5			70.0-130		05/03/2019 20:01	<u>WG1275813</u>	⁶ Qc
								⁷ Gl
								⁸ Al
								⁹ Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	538000		2710	20000	1	05/07/2019 19:58	WG1276578

Sample Narrative:

L1094387-07 WG1276578: Endpoint pH 4.5

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	41600		51.9	1000	1	05/02/2019 12:24	WG1274986
Nitrate	U		22.7	100	1	05/02/2019 12:24	WG1274986
Sulfate	51800		77.4	5000	1	05/02/2019 12:24	WG1274986

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	14200		102	1000	1	05/02/2019 21:58	WG1275023

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	2670		15.0	100	1	05/12/2019 22:15	WG1275858
Manganese	1080		0.250	5.00	1	05/12/2019 22:15	WG1275858

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	481		31.6	100	1	05/02/2019 19:16	WG1275218
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	99.0			78.0-120		05/02/2019 19:16	WG1275218

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	18000		5.74	13.6	20	05/09/2019 16:35	WG1278760
Ethane	122		0.296	1.29	1	05/09/2019 11:43	WG1277421
Ethene	93.2		0.422	1.27	1	05/09/2019 11:43	WG1277421

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	5.66	J J4	1.05	25.0	1	05/03/2019 20:21	WG1275813
Acrylonitrile	U		0.873	5.00	1	05/03/2019 20:21	WG1275813
Benzene	0.188	J	0.0896	0.500	1	05/03/2019 20:21	WG1275813
Bromobenzene	U		0.133	0.500	1	05/03/2019 20:21	WG1275813
Bromodichloromethane	U		0.0800	0.500	1	05/03/2019 20:21	WG1275813
Bromochloromethane	U		0.145	0.500	1	05/03/2019 20:21	WG1275813
Bromoform	U		0.186	0.500	1	05/03/2019 20:21	WG1275813
Bromomethane	U		0.157	2.50	1	05/03/2019 20:21	WG1275813
n-Butylbenzene	U		0.143	0.500	1	05/03/2019 20:21	WG1275813
sec-Butylbenzene	U		0.134	0.500	1	05/03/2019 20:21	WG1275813
tert-Butylbenzene	U		0.183	0.500	1	05/03/2019 20:21	WG1275813
Carbon disulfide	U		0.101	0.500	1	05/03/2019 20:21	WG1275813
Carbon tetrachloride	U		0.159	0.500	1	05/03/2019 20:21	WG1275813



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	05/03/2019 20:21	WG1275813
Chlorodibromomethane	U		0.128	0.500	1	05/03/2019 20:21	WG1275813
Chloroethane	4.02	<u>JO</u>	0.141	2.50	1	05/03/2019 20:21	WG1275813
Chloroform	U		0.0860	0.500	1	05/03/2019 20:21	WG1275813
Chloromethane	U	<u>JO</u>	0.153	1.25	1	05/03/2019 20:21	WG1275813
2-Chlorotoluene	U		0.111	0.500	1	05/03/2019 20:21	WG1275813
4-Chlorotoluene	U		0.0972	0.500	1	05/03/2019 20:21	WG1275813
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/03/2019 20:21	WG1275813
1,2-Dibromoethane	U		0.193	0.500	1	05/03/2019 20:21	WG1275813
Dibromomethane	U		0.117	0.500	1	05/03/2019 20:21	WG1275813
1,2-Dichlorobenzene	U		0.101	0.500	1	05/03/2019 20:21	WG1275813
1,3-Dichlorobenzene	U		0.130	0.500	1	05/03/2019 20:21	WG1275813
1,4-Dichlorobenzene	U		0.121	0.500	1	05/03/2019 20:21	WG1275813
Dichlorodifluoromethane	U		0.127	2.50	1	05/03/2019 20:21	WG1275813
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 20:21	WG1275813
1,2-Dichloroethane	U		0.108	0.500	1	05/03/2019 20:21	WG1275813
1,1-Dichloroethene	13.0		0.188	0.500	1	05/03/2019 20:21	WG1275813
cis-1,2-Dichloroethene	1250		1.87	10.0	20	05/05/2019 18:44	WG1276343
trans-1,2-Dichloroethene	14.1		0.152	0.500	1	05/03/2019 20:21	WG1275813
1,2-Dichloropropane	U		0.190	0.500	1	05/03/2019 20:21	WG1275813
1,1-Dichloropropene	U		0.128	0.500	1	05/03/2019 20:21	WG1275813
1,3-Dichloropropane	U		0.147	1.00	1	05/03/2019 20:21	WG1275813
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/03/2019 20:21	WG1275813
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/03/2019 20:21	WG1275813
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/03/2019 20:21	WG1275813
2,2-Dichloropropane	U		0.0929	0.500	1	05/03/2019 20:21	WG1275813
Di-isopropyl ether	U		0.0924	0.500	1	05/03/2019 20:21	WG1275813
Ethylbenzene	U		0.158	0.500	1	05/03/2019 20:21	WG1275813
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/03/2019 20:21	WG1275813
2-Hexanone	U		0.757	5.00	1	05/03/2019 20:21	WG1275813
n-Hexane	U		0.305	5.00	1	05/03/2019 20:21	WG1275813
Iodomethane	U		0.377	10.0	1	05/03/2019 20:21	WG1275813
Isopropylbenzene	U		0.126	0.500	1	05/03/2019 20:21	WG1275813
p-Isopropyltoluene	U		0.138	0.500	1	05/03/2019 20:21	WG1275813
2-Butanone (MEK)	U		1.28	5.00	1	05/03/2019 20:21	WG1275813
Methylene Chloride	U		1.07	2.50	1	05/03/2019 20:21	WG1275813
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/03/2019 20:21	WG1275813
Methyl tert-butyl ether	U		0.102	0.500	1	05/03/2019 20:21	WG1275813
Naphthalene	U	<u>JO</u>	0.174	2.50	1	05/03/2019 20:21	WG1275813
n-Propylbenzene	U		0.162	0.500	1	05/03/2019 20:21	WG1275813
Styrene	U		0.117	0.500	1	05/03/2019 20:21	WG1275813
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/03/2019 20:21	WG1275813
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/03/2019 20:21	WG1275813
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/03/2019 20:21	WG1275813
Tetrachloroethene	U		0.199	0.500	1	05/03/2019 20:21	WG1275813
Toluene	U		0.412	0.500	1	05/03/2019 20:21	WG1275813
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/03/2019 20:21	WG1275813
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/03/2019 20:21	WG1275813
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 20:21	WG1275813
1,1,2-Trichloroethane	U		0.186	0.500	1	05/03/2019 20:21	WG1275813
Trichloroethene	99.9		0.153	0.500	1	05/03/2019 20:21	WG1275813
Trichlorofluoromethane	U	<u>JO</u>	0.130	2.50	1	05/03/2019 20:21	WG1275813
1,2,3-Trichloropropane	U		0.247	2.50	1	05/03/2019 20:21	WG1275813
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/03/2019 20:21	WG1275813
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/03/2019 20:21	WG1275813
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/03/2019 20:21	WG1275813

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

MW107-050119

Collected date/time: 05/01/19 11:10

SAMPLE RESULTS - 07

L1094387

ONE LAB. NATIONWIDE.



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Vinyl acetate	U	<u>J0</u>	0.645	5.00	1	05/03/2019 20:21	WG1275813	¹ Cp
Vinyl chloride	374		2.36	10.0	20	05/05/2019 18:44	WG1276343	² Tc
Xylenes, Total	U		0.316	1.50	1	05/03/2019 20:21	WG1275813	³ Ss
(S) Toluene-d8	99.0			80.0-120		05/03/2019 20:21	WG1275813	
(S) Toluene-d8	102			80.0-120		05/05/2019 18:44	WG1276343	
(S) 4-Bromofluorobenzene	105			77.0-126		05/03/2019 20:21	WG1275813	
(S) 4-Bromofluorobenzene	105			77.0-126		05/05/2019 18:44	WG1276343	
(S) 1,2-Dichloroethane-d4	94.3			70.0-130		05/03/2019 20:21	WG1275813	⁴ Cn
(S) 1,2-Dichloroethane-d4	98.0			70.0-130		05/05/2019 18:44	WG1276343	⁵ Sr

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



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	4.93	JJ4	1.05	25.0	1	05/03/2019 20:42	WG1275813	¹ Cp
Acrylonitrile	U		0.873	5.00	1	05/03/2019 20:42	WG1275813	² Tc
Benzene	U		0.0896	0.500	1	05/03/2019 20:42	WG1275813	³ Ss
Bromobenzene	U		0.133	0.500	1	05/03/2019 20:42	WG1275813	⁴ Cn
Bromodichloromethane	U		0.0800	0.500	1	05/03/2019 20:42	WG1275813	⁵ Sr
Bromoform	U		0.145	0.500	1	05/03/2019 20:42	WG1275813	⁶ Qc
Bromomethane	U		0.157	2.50	1	05/03/2019 20:42	WG1275813	⁷ Gl
n-Butylbenzene	U		0.143	0.500	1	05/03/2019 20:42	WG1275813	⁸ Al
sec-Butylbenzene	U		0.134	0.500	1	05/03/2019 20:42	WG1275813	⁹ Sc
tert-Butylbenzene	U		0.183	0.500	1	05/03/2019 20:42	WG1275813	
Carbon disulfide	U		0.101	0.500	1	05/03/2019 20:42	WG1275813	
Carbon tetrachloride	U		0.159	0.500	1	05/03/2019 20:42	WG1275813	
Chlorobenzene	U		0.140	0.500	1	05/03/2019 20:42	WG1275813	
Chlorodibromomethane	U		0.128	0.500	1	05/03/2019 20:42	WG1275813	
Chloroethane	U	J0	0.141	2.50	1	05/03/2019 20:42	WG1275813	
Chloroform	U		0.0860	0.500	1	05/03/2019 20:42	WG1275813	
Chloromethane	U	J0	0.153	1.25	1	05/03/2019 20:42	WG1275813	
2-Chlorotoluene	U		0.111	0.500	1	05/03/2019 20:42	WG1275813	
4-Chlorotoluene	U		0.0972	0.500	1	05/03/2019 20:42	WG1275813	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/03/2019 20:42	WG1275813	
1,2-Dibromoethane	U		0.193	0.500	1	05/03/2019 20:42	WG1275813	
Dibromomethane	U		0.117	0.500	1	05/03/2019 20:42	WG1275813	
1,2-Dichlorobenzene	U		0.101	0.500	1	05/03/2019 20:42	WG1275813	
1,3-Dichlorobenzene	U		0.130	0.500	1	05/03/2019 20:42	WG1275813	
1,4-Dichlorobenzene	U		0.121	0.500	1	05/03/2019 20:42	WG1275813	
Dichlorodifluoromethane	U		0.127	2.50	1	05/03/2019 20:42	WG1275813	
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 20:42	WG1275813	
1,2-Dichloroethane	U		0.108	0.500	1	05/03/2019 20:42	WG1275813	
1,1-Dichloroethene	1.26		0.188	0.500	1	05/03/2019 20:42	WG1275813	
cis-1,2-Dichloroethene	372		0.466	2.50	5	05/05/2019 19:04	WG1276343	
trans-1,2-Dichloroethene	1.22		0.152	0.500	1	05/03/2019 20:42	WG1275813	
1,2-Dichloropropane	U		0.190	0.500	1	05/03/2019 20:42	WG1275813	
1,1-Dichloropropene	U		0.128	0.500	1	05/03/2019 20:42	WG1275813	
1,3-Dichloropropane	U		0.147	1.00	1	05/03/2019 20:42	WG1275813	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/03/2019 20:42	WG1275813	
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/03/2019 20:42	WG1275813	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/03/2019 20:42	WG1275813	
2,2-Dichloropropane	U		0.0929	0.500	1	05/03/2019 20:42	WG1275813	
Di-isopropyl ether	U		0.0924	0.500	1	05/03/2019 20:42	WG1275813	
Ethylbenzene	U		0.158	0.500	1	05/03/2019 20:42	WG1275813	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/03/2019 20:42	WG1275813	
2-Hexanone	U		0.757	5.00	1	05/03/2019 20:42	WG1275813	
n-Hexane	U		0.305	5.00	1	05/03/2019 20:42	WG1275813	
Iodomethane	U		0.377	10.0	1	05/03/2019 20:42	WG1275813	
Isopropylbenzene	U		0.126	0.500	1	05/03/2019 20:42	WG1275813	
p-Isopropyltoluene	U		0.138	0.500	1	05/03/2019 20:42	WG1275813	
2-Butanone (MEK)	U		1.28	5.00	1	05/03/2019 20:42	WG1275813	
Methylene Chloride	U		1.07	2.50	1	05/03/2019 20:42	WG1275813	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/03/2019 20:42	WG1275813	
Methyl tert-butyl ether	U		0.102	0.500	1	05/03/2019 20:42	WG1275813	
Naphthalene	U	J0	0.174	2.50	1	05/03/2019 20:42	WG1275813	
n-Propylbenzene	U		0.162	0.500	1	05/03/2019 20:42	WG1275813	
Styrene	U		0.117	0.500	1	05/03/2019 20:42	WG1275813	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/03/2019 20:42	WG1275813	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/03/2019 20:42	WG1275813	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/03/2019 20:42	WG1275813	¹ Cp
Tetrachloroethene	101		0.199	0.500	1	05/03/2019 20:42	WG1275813	² Tc
Toluene	U		0.412	0.500	1	05/03/2019 20:42	WG1275813	³ Ss
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/03/2019 20:42	WG1275813	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/03/2019 20:42	WG1275813	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 20:42	WG1275813	
1,1,2-Trichloroethane	U		0.186	0.500	1	05/03/2019 20:42	WG1275813	
Trichloroethene	166		0.153	0.500	1	05/03/2019 20:42	WG1275813	
Trichlorofluoromethane	U	<u>J0</u>	0.130	2.50	1	05/03/2019 20:42	WG1275813	
1,2,3-Trichloropropane	U		0.247	2.50	1	05/03/2019 20:42	WG1275813	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/03/2019 20:42	WG1275813	⁶ Qc
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/03/2019 20:42	WG1275813	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/03/2019 20:42	WG1275813	
Vinyl acetate	U	<u>J0</u>	0.645	5.00	1	05/03/2019 20:42	WG1275813	
Vinyl chloride	U		0.590	2.50	5	05/05/2019 19:04	WG1276343	
Xylenes, Total	U		0.316	1.50	1	05/03/2019 20:42	WG1275813	
(S) Toluene-d8	96.8			80.0-120		05/03/2019 20:42	WG1275813	
(S) Toluene-d8	96.5			80.0-120		05/05/2019 19:04	WG1276343	
(S) 4-Bromofluorobenzene	101			77.0-126		05/03/2019 20:42	WG1275813	
(S) 4-Bromofluorobenzene	101			77.0-126		05/05/2019 19:04	WG1276343	
(S) 1,2-Dichloroethane-d4	98.7			70.0-130		05/03/2019 20:42	WG1275813	
(S) 1,2-Dichloroethane-d4	94.8			70.0-130		05/05/2019 19:04	WG1276343	

Sample Narrative:

L1094387-08 WG1275813, WG1276343: Not all compounds reportable at lower dilution.

L1094387-08 WG1275813, WG1276343: Cannot be re-analyzed at lower dilution due to high levels of target analytes.



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	05/02/2019 17:41	WG1275218
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	98.6			78.0-120		05/02/2019 17:41	WG1275218

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	1.22	<u>JJ4</u>	1.05	25.0	1	05/03/2019 17:00	WG1275813
Acrylonitrile	U		0.873	5.00	1	05/03/2019 17:00	WG1275813
Benzene	U		0.0896	0.500	1	05/03/2019 17:00	WG1275813
Bromobenzene	U		0.133	0.500	1	05/03/2019 17:00	WG1275813
Bromodichloromethane	U		0.0800	0.500	1	05/03/2019 17:00	WG1275813
Bromoform	U		0.145	0.500	1	05/03/2019 17:00	WG1275813
Bromomethane	U		0.186	0.500	1	05/03/2019 17:00	WG1275813
n-Butylbenzene	U		0.143	0.500	1	05/03/2019 17:00	WG1275813
sec-Butylbenzene	U		0.134	0.500	1	05/03/2019 17:00	WG1275813
tert-Butylbenzene	U		0.183	0.500	1	05/03/2019 17:00	WG1275813
Carbon disulfide	U		0.101	0.500	1	05/03/2019 17:00	WG1275813
Carbon tetrachloride	U		0.159	0.500	1	05/03/2019 17:00	WG1275813
Chlorobenzene	U		0.140	0.500	1	05/03/2019 17:00	WG1275813
Chlorodibromomethane	U		0.128	0.500	1	05/03/2019 17:00	WG1275813
Chloroethane	U	<u>J0</u>	0.141	2.50	1	05/03/2019 17:00	WG1275813
Chloroform	U		0.0860	0.500	1	05/03/2019 17:00	WG1275813
Chloromethane	U	<u>J0</u>	0.153	1.25	1	05/03/2019 17:00	WG1275813
2-Chlorotoluene	U		0.111	0.500	1	05/03/2019 17:00	WG1275813
4-Chlorotoluene	U		0.0972	0.500	1	05/03/2019 17:00	WG1275813
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/03/2019 17:00	WG1275813
1,2-Dibromoethane	U		0.193	0.500	1	05/03/2019 17:00	WG1275813
Dibromomethane	U		0.117	0.500	1	05/03/2019 17:00	WG1275813
1,2-Dichlorobenzene	U		0.101	0.500	1	05/03/2019 17:00	WG1275813
1,3-Dichlorobenzene	U		0.130	0.500	1	05/03/2019 17:00	WG1275813
1,4-Dichlorobenzene	U		0.121	0.500	1	05/03/2019 17:00	WG1275813
Dichlorodifluoromethane	U		0.127	2.50	1	05/03/2019 17:00	WG1275813
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 17:00	WG1275813
1,2-Dichloroethane	U		0.108	0.500	1	05/03/2019 17:00	WG1275813
1,1-Dichloroethene	U		0.188	0.500	1	05/03/2019 17:00	WG1275813
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/03/2019 17:00	WG1275813
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/03/2019 17:00	WG1275813
1,2-Dichloropropane	U		0.190	0.500	1	05/03/2019 17:00	WG1275813
1,1-Dichloropropene	U		0.128	0.500	1	05/03/2019 17:00	WG1275813
1,3-Dichloropropane	U		0.147	1.00	1	05/03/2019 17:00	WG1275813
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/03/2019 17:00	WG1275813
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/03/2019 17:00	WG1275813
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/03/2019 17:00	WG1275813
2,2-Dichloropropane	U		0.0929	0.500	1	05/03/2019 17:00	WG1275813
Di-isopropyl ether	U		0.0924	0.500	1	05/03/2019 17:00	WG1275813
Ethylbenzene	U		0.158	0.500	1	05/03/2019 17:00	WG1275813
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/03/2019 17:00	WG1275813
2-Hexanone	U		0.757	5.00	1	05/03/2019 17:00	WG1275813
n-Hexane	U		0.305	5.00	1	05/03/2019 17:00	WG1275813
Iodomethane	U		0.377	10.0	1	05/03/2019 17:00	WG1275813
Isopropylbenzene	U		0.126	0.500	1	05/03/2019 17:00	WG1275813
p-Isopropyltoluene	U		0.138	0.500	1	05/03/2019 17:00	WG1275813
2-Butanone (MEK)	U		1.28	5.00	1	05/03/2019 17:00	WG1275813



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	05/03/2019 17:00	WG1275813	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/03/2019 17:00	WG1275813	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	05/03/2019 17:00	WG1275813	³ Ss
Naphthalene	U	<u>J0</u>	0.174	2.50	1	05/03/2019 17:00	WG1275813	
n-Propylbenzene	U		0.162	0.500	1	05/03/2019 17:00	WG1275813	
Styrene	U		0.117	0.500	1	05/03/2019 17:00	WG1275813	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/03/2019 17:00	WG1275813	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/03/2019 17:00	WG1275813	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/03/2019 17:00	WG1275813	
Tetrachloroethene	U		0.199	0.500	1	05/03/2019 17:00	WG1275813	
Toluene	U		0.412	0.500	1	05/03/2019 17:00	WG1275813	⁶ Qc
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/03/2019 17:00	WG1275813	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/03/2019 17:00	WG1275813	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 17:00	WG1275813	
1,1,2-Trichloroethane	U		0.186	0.500	1	05/03/2019 17:00	WG1275813	
Trichloroethene	U		0.153	0.500	1	05/03/2019 17:00	WG1275813	
Trichlorofluoromethane	U	<u>J0</u>	0.130	2.50	1	05/03/2019 17:00	WG1275813	
1,2,3-Trichloropropane	U		0.247	2.50	1	05/03/2019 17:00	WG1275813	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/03/2019 17:00	WG1275813	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/03/2019 17:00	WG1275813	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/03/2019 17:00	WG1275813	
Vinyl acetate	U	<u>J0</u>	0.645	5.00	1	05/03/2019 17:00	WG1275813	
Vinyl chloride	U	<u>J0 J4</u>	0.118	0.500	1	05/03/2019 17:00	WG1275813	
Xylenes, Total	U		0.316	1.50	1	05/03/2019 17:00	WG1275813	
(S) Toluene-d8	98.6			80.0-120		05/03/2019 17:00	WG1275813	
(S) 4-Bromofluorobenzene	105			77.0-126		05/03/2019 17:00	WG1275813	
(S) 1,2-Dichloroethane-d4	98.3			70.0-130		05/03/2019 17:00	WG1275813	

L1094387-06,07

Method Blank (MB)

(MB) R3409108-1 05/07/19 18:19

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Alkalinity	5510	J	2710	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1094450-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1094450-09 05/07/19 22:02 • (DUP) R3409108-4 05/08/19 07:27

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Alkalinity	555000	547000	1	1.40		20

Sample Narrative:

OS: Endpoint pH 4.5

DUP: Endpoint pH 4.5

L1093607-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1093607-01 05/07/19 18:36 • (DUP) R3409108-2 05/07/19 18:44

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Alkalinity	ND	15700	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5

DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3409108-3 05/07/19 20:31

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Alkalinity	100000	102000	102	85.0-115	

Sample Narrative:

LCS: Endpoint pH 4.5



Method Blank (MB)

(MB) R3407729-1 05/02/19 09:54

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1094387-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1094387-06 05/02/19 11:27 • (DUP) R3407729-3 05/02/19 11:41

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Chloride	25500	25600	1	0.444		15
Nitrate	U	0.000	1	0.000		15
Sulfate	12200	12200	1	0.406		15

⁹Sc

L1094414-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1094414-03 05/02/19 16:43 • (DUP) R3407729-6 05/02/19 16:58

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Chloride	80.6	0.000	1	200	P1	15
Nitrate	U	0.000	1	0.000		15
Sulfate	U	0.000	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3407729-2 05/02/19 10:08

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Chloride	40000	40100	100	80.0-120	
Nitrate	8000	8050	101	80.0-120	
Sulfate	40000	40500	101	80.0-120	

WG1274986

Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

L1094387-06.07

L1094387-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1094387-06 05/02/19 11:27 • (MS) R3407729-4 05/02/19 11:55 • (MSD) R3407729-5 05/02/19 12:09

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Chloride	50000	25500	73800	73800	96.5	96.7	1	80.0-120			0.0809	15
Nitrate	5000	U	4620	4630	92.4	92.6	1	80.0-120			0.195	15
Sulfate	50000	12200	60300	60300	96.3	96.3	1	80.0-120			0.0128	15

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1094414-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1094414-03 05/02/19 16:43 • (MS) R3407729-7 05/02/19 17:12

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>
Chloride	50000	80.6	49600	99.0	1	80.0-120	
Nitrate	5000	U	4830	96.5	1	80.0-120	
Sulfate	50000	U	48800	97.5	1	80.0-120	

ACCOUNT:

PES Environmental, Inc.- WA

PROJECT:

1413.001.05,601

SDG:

L1094387

DATE/TIME:

05/14/19 16:21

PAGE:

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L1094387-06,07

Method Blank (MB)

(MB) R3407790-1 05/02/19 12:07

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	198	J	102	1000

¹Cp

L1094181-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1094181-11 05/02/19 17:08 • (DUP) R3407790-5 05/02/19 17:25

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
TOC (Total Organic Carbon)	1970	1890	1	4.14		20

²Tc³Ss⁴Cn⁵Sr⁶Qc

L1094387-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1094387-06 05/02/19 21:22 • (DUP) R3407790-8 05/02/19 21:39

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
TOC (Total Organic Carbon)	1580	1610	1	2.07		20

⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3407790-2 05/02/19 12:43

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
TOC (Total Organic Carbon)	75000	76500	102	85.0-115	

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3407790-3 05/02/19 14:17 • (MSD) R3407790-4 05/02/19 14:41

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
TOC (Total Organic Carbon)	50000		2550000	2590000	85.1	89.3	20	80.0-120	E	E	1.64	20

¹Cp

L1094377-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1094377-02 05/02/19 20:04 • (MS) R3407790-6 05/02/19 20:25 • (MSD) R3407790-7 05/02/19 20:45

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
TOC (Total Organic Carbon)	50000	3870	53800	54200	99.9	101	1	80.0-120			0.630	20

²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



Method Blank (MB)

(MB) R3410561-1 05/12/19 20:24

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Iron	U		15.0	100
Manganese	U		0.250	5.00

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3410561-2 05/12/19 20:30 • (LCSD) R3410561-3 05/12/19 20:35

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 %
Iron	500	515	470	103	94.0	80.0-120			9.08	20
Manganese	50.0	49.3	47.8	98.5	95.6	80.0-120			3.05	20

L1094065-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1094065-01 05/12/19 20:40 • (MS) R3410561-5 05/12/19 20:51 • (MSD) R3410561-6 05/12/19 20:56

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Iron	500	200000	189000	185000	0.000	0.000	1	75.0-125	V	V	2.08	20
Manganese	50.0	5360	5190	4990	0.000	0.000	1	75.0-125	V	V	3.94	20

[L1094387-05,06,07,09](#)

Method Blank (MB)

(MB) R3407657-3 05/02/19 14:16

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	98.4			78.0-120

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3407657-1 05/02/19 13:04 • (LCSD) R3407657-2 05/02/19 13:28

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
Gasoline Range Organics-NWTPH	5500	5280	5110	95.9	92.9	70.0-124			3.26	20
(S) a,a,a-Trifluorotoluene(FID)			104	104		78.0-120				

L1094387-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1094387-05 05/02/19 18:28 • (MS) R3407657-4 05/02/19 23:14 • (MSD) R3407657-5 05/02/19 23:38

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits
Gasoline Range Organics-NWTPH	5500	U	5760	5590	105	102	1	10.0-155			2.92	21
(S) a,a,a-Trifluorotoluene(FID)				107	107			78.0-120				



Method Blank (MB)

(MB) R3409706-1 05/09/19 11:19

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al

L1094039-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1094039-01 05/09/19 11:34 • (DUP) R3409706-2 05/09/19 11:36

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Methane	221	79.2	1	94.5		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

⁹Sc

L1094407-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1094407-05 05/09/19 12:59 • (DUP) R3409706-3 05/09/19 13:02

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Methane	519	536	1	3.25		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

L1095146-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1095146-01 05/09/19 13:38 • (DUP) R3409706-4 05/09/19 13:48

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Methane	4330	4280	1	1.22		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20



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

(LCS) R3409706-5 05/09/19 13:51 • (LCSD) R3409706-6 05/09/19 13:57

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 %
Methane	67.8	78.0	73.3	115	108	85.0-115			6.21	20
Ethane	129	120	115	93.0	89.2	85.0-115			4.26	20
Ethene	127	119	114	93.9	89.9	85.0-115			4.37	20

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

WG1278760

Volatile Organic Compounds (GC) by Method RSK175

QUALITY CONTROL SUMMARY

[L1094387-07](#)

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3409768-4 05/09/19 16:33

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Methane	U		0.287	0.678

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3409768-2 05/09/19 16:38 • (LCSD) R3409768-3 05/09/19 16:51

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 %
Methane	67.8	76.4	75.7	113	112	85.0-115			0.878	20

[L1094387-01,02,03,04,05,06,07,08,09](#)

Method Blank (MB)

(MB) R3408279-3 05/03/19 10:11

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	1 Cp
Acetone	U		1.05	25.0	
Acrylonitrile	U		0.873	5.00	
Benzene	U		0.0896	0.500	
Bromobenzene	U		0.133	0.500	
Bromochloromethane	U		0.145	0.500	
Bromodichloromethane	U		0.0800	0.500	
Bromoform	U		0.186	0.500	
Bromomethane	U		0.157	2.50	
n-Butylbenzene	U		0.143	0.500	
Carbon disulfide	0.161	J	0.101	0.500	
sec-Butylbenzene	U		0.134	0.500	
tert-Butylbenzene	U		0.183	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	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	
1,1-Dichloropropene	U		0.128	0.500	
1,3-Dichloropropene	U		0.147	1.00	
cis-1,3-Dichloropropene	U		0.0976	0.500	
trans-1,3-Dichloropropene	U		0.222	0.500	
2,2-Dichloropropane	U		0.0929	0.500	
2-Hexanone	U		0.757	5.00	

[L1094387-01,02,03,04,05,06,07,08,09](#)

Method Blank (MB)

(MB) R3408279-3 05/03/19 10:11

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	
n-Hexane	U		0.305	5.00	¹ Cp
Di-isopropyl ether	U		0.0924	0.500	² Tc
Iodomethane	U		0.377	10.0	³ Ss
Ethylbenzene	U		0.158	0.500	⁴ Cn
Hexachloro-1,3-butadiene	0.354	<u>J</u>	0.157	1.00	⁵ Sr
Isopropylbenzene	U		0.126	0.500	⁶ Qc
p-Isopropyltoluene	U		0.138	0.500	⁷ Gl
2-Butanone (MEK)	U		1.28	5.00	⁸ Al
Methylene Chloride	U		1.07	2.50	⁹ Sc
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	
Tetrachloroethene	U		0.199	0.500	
Vinyl acetate	U		0.645	5.00	
Toluene	U		0.412	0.500	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	
1,2,3-Trichlorobenzene	0.204	<u>J</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	
1,2,3-Trimethylbenzene	U		0.0739	0.500	
1,2,4-Trimethylbenzene	U		0.123	0.500	
1,3,5-Trimethylbenzene	U		0.124	0.500	
Vinyl chloride	U		0.118	0.500	
Xylenes, Total	U		0.316	1.50	
(S) Toluene-d8	96.9		80.0-120		
(S) 4-Bromofluorobenzene	109		77.0-126		
(S) 1,2-Dichloroethane-d4	95.5		70.0-130		



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

(LCS) R3408279-1 05/03/19 09:11 • (LCSD) R3408279-2 05/03/19 09:31

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
Bromochloromethane	25.0	23.6	23.2	94.4	92.7	76.0-122			1.83	20
Carbon disulfide	25.0	30.4	27.8	122	111	61.0-128			8.91	20
Acetone	125	219	178	175	143	19.0-160	J4		20.2	27
Acrylonitrile	125	158	150	126	120	55.0-149			4.85	20
Benzene	25.0	25.8	25.3	103	101	70.0-123			1.86	20
Bromobenzene	25.0	23.5	22.3	94.1	89.2	73.0-121			5.42	20
Bromodichloromethane	25.0	22.8	23.0	91.1	92.0	75.0-120			0.918	20
Bromoform	25.0	25.6	25.6	103	102	68.0-132			0.0628	20
Bromomethane	25.0	13.6	14.7	54.4	58.7	10.0-160			7.66	25
trans-1,4-Dichloro-2-butene	25.0	21.8	21.0	87.1	83.8	33.0-144			3.80	20
n-Butylbenzene	25.0	20.8	20.4	83.4	81.5	73.0-125			2.25	20
sec-Butylbenzene	25.0	21.8	21.3	87.3	85.1	75.0-125			2.54	20
tert-Butylbenzene	25.0	22.7	22.0	90.9	87.8	76.0-124			3.40	20
2-Hexanone	125	136	141	109	113	67.0-149			3.52	20
Carbon tetrachloride	25.0	23.9	23.2	95.5	92.8	68.0-126			2.86	20
Chlorobenzene	25.0	23.1	22.3	92.6	89.4	80.0-121			3.55	20
n-Hexane	25.0	30.4	26.5	122	106	57.0-133			13.6	20
Chlorodibromomethane	25.0	23.3	22.7	93.2	90.6	77.0-125			2.80	20
Iodomethane	125	136	128	109	103	33.0-147			5.82	26
Chloroethane	25.0	15.9	14.4	63.6	57.6	47.0-150			9.85	20
Chloroform	25.0	21.9	21.6	87.7	86.4	73.0-120			1.44	20
Chloromethane	25.0	23.0	22.7	92.1	90.9	41.0-142			1.34	20
2-Chlortoluene	25.0	22.3	21.0	89.2	84.1	76.0-123			5.95	20
4-Chlortoluene	25.0	22.4	21.7	89.8	86.7	75.0-122			3.49	20
1,2-Dibromo-3-Chloropropane	25.0	23.9	24.2	95.8	96.7	58.0-134			0.974	20
1,2-Dibromoethane	25.0	22.3	21.9	89.3	87.4	80.0-122			2.13	20
Dibromomethane	25.0	22.5	22.8	90.2	91.2	80.0-120			1.13	20
1,2-Dichlorobenzene	25.0	22.6	21.9	90.5	87.6	79.0-121			3.21	20
1,3-Dichlorobenzene	25.0	22.3	21.3	89.4	85.0	79.0-120			5.00	20
1,4-Dichlorobenzene	25.0	21.3	20.8	85.4	83.1	79.0-120			2.71	20
Dichlorodifluoromethane	25.0	23.6	23.1	94.4	92.3	51.0-149			2.24	20
1,1-Dichloroethane	25.0	25.7	24.0	103	96.0	70.0-126			6.87	20
1,2-Dichloroethane	25.0	21.7	21.4	86.9	85.7	70.0-128			1.44	20
1,1-Dichloroethene	25.0	26.0	24.4	104	97.5	71.0-124			6.63	20
cis-1,2-Dichloroethene	25.0	24.0	23.2	96.1	93.0	73.0-120			3.33	20
trans-1,2-Dichloroethene	25.0	25.7	23.4	103	93.6	73.0-120			9.57	20
1,2-Dichloropropane	25.0	26.0	26.5	104	106	77.0-125			1.81	20
1,1-Dichloropropene	25.0	24.8	23.8	99.0	95.4	74.0-126			3.76	20
1,3-Dichloropropane	25.0	23.4	23.8	93.7	95.1	80.0-120			1.44	20
cis-1,3-Dichloropropene	25.0	23.2	23.2	92.9	92.6	80.0-123			0.332	20

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) R3408279-1 05/03/19 09:11 • (LCSD) R3408279-2 05/03/19 09:31

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 %
Vinyl acetate	125	73.8	88.3	59.0	70.6	11.0-160			17.8	20
trans-1,3-Dichloropropene	25.0	22.1	22.2	88.6	88.9	78.0-124			0.338	20
2,2-Dichloropropane	25.0	27.7	26.5	111	106	58.0-130			4.72	20
Di-isopropyl ether	25.0	30.0	26.8	120	107	58.0-138			11.3	20
Ethylbenzene	25.0	23.3	22.6	93.2	90.5	79.0-123			3.03	20
Hexachloro-1,3-butadiene	25.0	25.3	26.0	101	104	54.0-138			2.57	20
Isopropylbenzene	25.0	24.3	24.0	97.1	96.1	76.0-127			1.00	20
p-Isopropyltoluene	25.0	22.2	21.5	88.7	86.0	76.0-125			3.11	20
2-Butanone (MEK)	125	158	157	126	126	44.0-160			0.414	20
Methylene Chloride	25.0	26.5	23.3	106	93.4	67.0-120			12.5	20
4-Methyl-2-pentanone (MIBK)	125	133	140	107	112	68.0-142			4.67	20
Methyl tert-butyl ether	25.0	26.1	23.2	104	92.9	68.0-125			11.5	20
Naphthalene	25.0	19.8	21.0	79.2	83.9	54.0-135			5.77	20
n-Propylbenzene	25.0	22.1	21.0	88.5	83.8	77.0-124			5.39	20
Styrene	25.0	26.2	26.0	105	104	73.0-130			0.613	20
1,1,1,2-Tetrachloroethane	25.0	23.0	22.5	92.0	90.0	75.0-125			2.14	20
1,1,2,2-Tetrachloroethane	25.0	20.9	20.3	83.5	81.4	65.0-130			2.55	20
Tetrachloroethene	25.0	23.8	23.6	95.2	94.3	72.0-132			0.966	20
Toluene	25.0	25.2	24.2	101	96.6	79.0-120			4.17	20
1,1,2-Trichlorotrifluoroethane	25.0	24.4	22.9	97.5	91.7	69.0-132			6.13	20
1,2,3-Trichlorobenzene	25.0	20.8	21.9	83.3	87.5	50.0-138			4.93	20
1,2,4-Trichlorobenzene	25.0	22.0	22.1	87.8	88.4	57.0-137			0.723	20
1,1,1-Trichloroethane	25.0	24.0	23.4	96.1	93.6	73.0-124			2.65	20
1,1,2-Trichloroethane	25.0	21.3	21.5	85.1	86.2	80.0-120			1.29	20
Trichloroethene	25.0	26.0	24.9	104	99.8	78.0-124			4.20	20
Trichlorofluoromethane	25.0	15.9	15.1	63.4	60.4	59.0-147			4.90	20
1,2,3-Trichloropropane	25.0	20.1	19.3	80.6	77.2	73.0-130			4.21	20
1,2,3-Trimethylbenzene	25.0	21.4	20.8	85.7	83.1	77.0-120			3.06	20
1,2,4-Trimethylbenzene	25.0	21.8	20.7	87.2	82.9	76.0-121			4.96	20
1,3,5-Trimethylbenzene	25.0	22.1	21.1	88.2	84.4	76.0-122			4.41	20
Vinyl chloride	25.0	16.6	16.2	66.5	64.6	67.0-131	J4	J4	2.92	20
Xylenes, Total	75.0	71.1	69.3	94.8	92.4	79.0-123			2.56	20
(S) Toluene-d8				98.5	96.4	80.0-120				
(S) 4-Bromofluorobenzene				107	110	77.0-126				
(S) 1,2-Dichloroethane-d4				96.5	94.6	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

[L1094387-02,03,07,08](#)

Method Blank (MB)

(MB) R3408889-3 05/05/19 09:45

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
cis-1,2-Dichloroethene	U		0.0933	0.500
Tetrachloroethene	U		0.199	0.500
Vinyl chloride	U		0.118	0.500
(S) Toluene-d8	97.6		80.0-120	
(S) 4-Bromofluorobenzene	104		77.0-126	
(S) 1,2-Dichloroethane-d4	95.4		70.0-130	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc

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

(LCS) R3408889-1 05/05/19 08:45 • (LCSD) R3408889-2 05/05/19 09:05

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 %
cis-1,2-Dichloroethene	25.0	26.5	26.9	106	107	73.0-120			1.21	20
Tetrachloroethene	25.0	25.6	27.0	103	108	72.0-132			5.20	20
Vinyl chloride	25.0	23.4	23.7	93.8	94.8	67.0-131			1.12	20
(S) Toluene-d8				96.1	102	80.0-120				
(S) 4-Bromofluorobenzene				100	108	77.0-126				
(S) 1,2-Dichloroethane-d4				90.9	96.1	70.0-130				

⁷Gl⁸Al⁹Sc



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.	¹ Cp
ND	Not detected at the Reporting Limit (or MDL where applicable).	² Tc
RDL	Reported Detection Limit.	³ Ss
Rec.	Recovery.	⁴ Cn
RPD	Relative Percent Difference.	⁵ Sr
SDG	Sample Delivery Group.	⁶ Qc
(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.	⁷ GI
U	Not detected at the Reporting Limit (or MDL where applicable).	⁸ AI
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	⁹ SC
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.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
JO	JO: The identification of the analyte is acceptable, but the reported concentration is an estimate. The calibration met method criteria.
J4	The associated batch QC was outside the established quality control range for accuracy.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
V	The sample concentration is too high to evaluate accurate spike recoveries.



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
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia ¹	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky ^{1,6}	90010
Kentucky ²	16
Louisiana	AI30792
Louisiana ¹	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LA000356
South Carolina	84004
South Dakota	n/a
Tennessee ^{1,4}	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

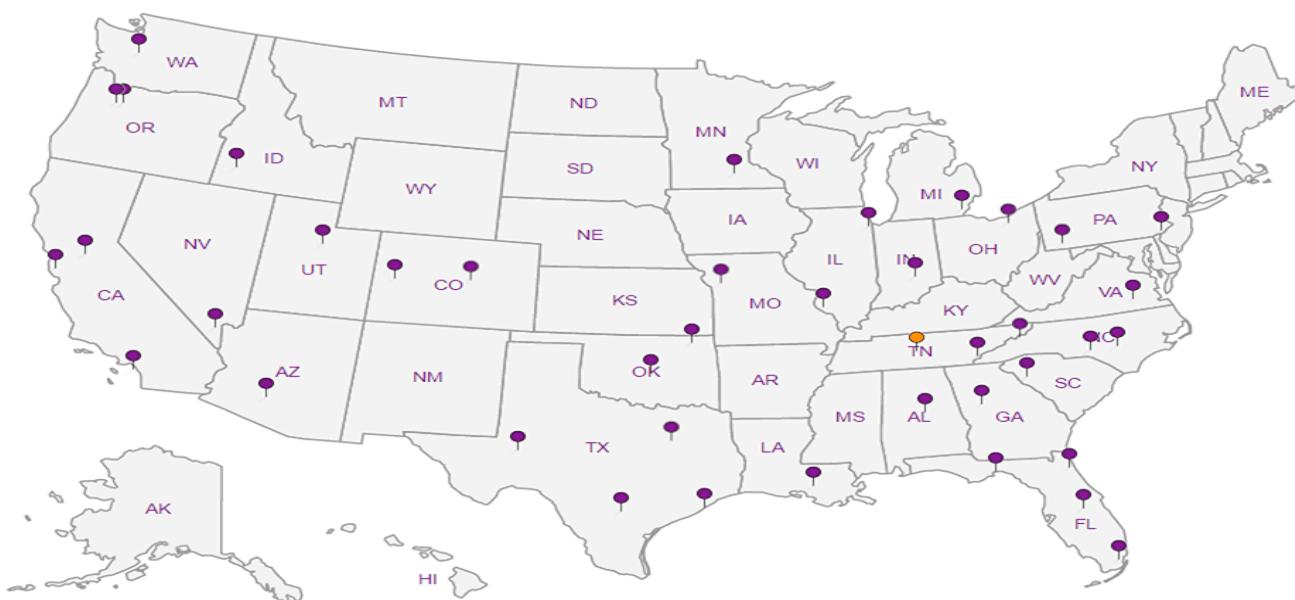
A2LA – ISO 17025	1461.01
A2LA – ISO 17025 ⁵	1461.02
Canada	1461.01
EPA-Crypto	TN00003

AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

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.



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

PES Environmental, Inc.- WA			Billing Information: Attn: Accounts Payable 1215 Fourth Ave., Ste. 1350 Seattle, WA 98161			Pres Chk:	Analysis / Container / Preservative						Chain of Custody	Page ____ of ____	
									L2						
Report to: Brian O'Neal/Bill Haldeman			Email To: boneal@pesenv.com; bhaldeaman@pesenv.com;												
Project Description: American Lanes			City/State Collected: Seattle, WA												
Phone: 206-529-3980 Fax: 206-529-3985	Client Project # 1413.001.05.601		Lab Project # PESENVSWA-ALP												
Collected by (print): Ben Hecht	Site/Facility ID # American Lanes		P.O. #												
Collected by (signature): <i>[Signature]</i>	Rush? (Lab MUST Be Notified) Same Day Five Day Next Day 5 Day (Rad Only) Two Day 10 Day (Rad Only) Three Day		Quote #												
Immediately Packed on Ice N Y	Date Results Needed STAT						No. of Cntns								
Sample ID	Comp/Grab	Matrix *	Depth	Date 4/29/19	Time			NWTPHGX 40mlAmb HCl	VOCs 8260LLC 40mlAmb-HCl	NO3 SO4 Cl (125ml)	Al/Kalinit (125ml)	SEM (RSK/173U) (40ml)	TDC Fe 250 ml	Total Fe Mn 6020	✓
MW109-042919	Grab	GW	40	4/29/19	0845	3		X							
MW108-042919		GW	45	4/29/19	0950	3		X						-01	
MW126-042919		GW	90		1045	3		X						-02	
MW119-042919		GW	40		1220	3		X						-03	
MW121-042919	↓	GW	20	↓	1335	6		X						-04	
MW-161-050119	Grab	GW	125	5/1/19	0925	12		X						-05	
MW107-050119		GW	140		1110	12		X						-06	
FMW-129-050119	↓	GW	87		1400	3		X						-07	
TRIP BLANK-050119	-	GW	-	-	-	4		X						-08	
		GW												-09	
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other _____	Remarks: Tier 2 lab QA/QC, email						pH		Temp						
							Flow		Other						
	Samples returned via: UPS FedEx Courier						Tracking #	Sample Receipt Checklist COC Seal Present/Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N COC Signed/Accurate: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Bottles arrive intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Correct bottles used: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Sufficient volume sent: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N If Applicable VOA Zero Headspace: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Preservation Correct/Checked: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N							
Relinquished by : (Signature) <i>[Signature]</i>	Date: 5-1-19	Time: 16:00	Received by: (Signature) <i>[Signature]</i>	Trip Blank Received: <input checked="" type="checkbox"/> Yes / No ACN MeOH TBR											
Relinquished by : (Signature) <i>[Signature]</i>	Date: 5-1-19	Time: 16:30	Received by: (Signature) <i>[Signature]</i>	Temp: °C Bottles Received: 22.0-1-21.15 45	If preservation required by Login: Date/Time										
Relinquished by : (Signature) <i>[Signature]</i>	Date: _____	Time: _____	Received for lab by: (Signature) <i>[Signature]</i>	Date: 5-2-19	Time: 8:45	Hold: _____	Condition: NCF / OK								



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	3.78	U	JJ4	1.05	25.0	1	05/03/2019 18:20	WG1275813
Acrylonitrile	U			0.873	5.00	1	05/03/2019 18:20	WG1275813
Benzene	U			0.0896	0.500	1	05/03/2019 18:20	WG1275813
Bromobenzene	U			0.133	0.500	1	05/03/2019 18:20	WG1275813
Bromodichloromethane	U			0.0800	0.500	1	05/03/2019 18:20	WG1275813
Bromoform	U			0.145	0.500	1	05/03/2019 18:20	WG1275813
Bromomethane	U			0.186	0.500	1	05/03/2019 18:20	WG1275813
n-Butylbenzene	U			0.157	2.50	1	05/03/2019 18:20	WG1275813
sec-Butylbenzene	U			0.143	0.500	1	05/03/2019 18:20	WG1275813
tert-Butylbenzene	U			0.134	0.500	1	05/03/2019 18:20	WG1275813
Carbon disulfide	U			0.183	0.500	1	05/03/2019 18:20	WG1275813
Carbon tetrachloride	U			0.101	0.500	1	05/03/2019 18:20	WG1275813
Chlorobenzene	U			0.159	0.500	1	05/03/2019 18:20	WG1275813
Chlorodibromomethane	U			0.140	0.500	1	05/03/2019 18:20	WG1275813
Chloroethane	U	UJ	J0	0.128	0.500	1	05/03/2019 18:20	WG1275813
Chloroethane	U			0.141	2.50	1	05/03/2019 18:20	WG1275813
Chloroform	U			0.0860	0.500	1	05/03/2019 18:20	WG1275813
Chloromethane	U	UJ	J0	0.153	1.25	1	05/03/2019 18:20	WG1275813
2-Chlorotoluene	U			0.111	0.500	1	05/03/2019 18:20	WG1275813
4-Chlorotoluene	U			0.0972	0.500	1	05/03/2019 18:20	WG1275813
1,2-Dibromo-3-Chloropropane	U			0.325	2.50	1	05/03/2019 18:20	WG1275813
1,2-Dibromoethane	U			0.193	0.500	1	05/03/2019 18:20	WG1275813
Dibromomethane	U			0.117	0.500	1	05/03/2019 18:20	WG1275813
1,2-Dichlorobenzene	U			0.101	0.500	1	05/03/2019 18:20	WG1275813
1,3-Dichlorobenzene	U			0.130	0.500	1	05/03/2019 18:20	WG1275813
1,4-Dichlorobenzene	U			0.121	0.500	1	05/03/2019 18:20	WG1275813
Dichlorodifluoromethane	U			0.127	2.50	1	05/03/2019 18:20	WG1275813
1,1-Dichloroethane	U			0.114	0.500	1	05/03/2019 18:20	WG1275813
1,2-Dichloroethane	U			0.108	0.500	1	05/03/2019 18:20	WG1275813
1,1-Dichloroethene	U			0.188	0.500	1	05/03/2019 18:20	WG1275813
cis-1,2-Dichloroethene	4.78			0.0933	0.500	1	05/03/2019 18:20	WG1275813
trans-1,2-Dichloroethene	U			0.152	0.500	1	05/03/2019 18:20	WG1275813
1,2-Dichloropropane	U			0.190	0.500	1	05/03/2019 18:20	WG1275813
1,1-Dichloropropene	U			0.128	0.500	1	05/03/2019 18:20	WG1275813
1,3-Dichloropropane	U			0.147	1.00	1	05/03/2019 18:20	WG1275813
cis-1,3-Dichloropropene	U			0.0976	0.500	1	05/03/2019 18:20	WG1275813
trans-1,3-Dichloropropene	U			0.222	0.500	1	05/03/2019 18:20	WG1275813
trans-1,4-Dichloro-2-butene	U			0.257	5.00	1	05/03/2019 18:20	WG1275813
2,2-Dichloropropane	U			0.0929	0.500	1	05/03/2019 18:20	WG1275813
Di-isopropyl ether	U			0.0924	0.500	1	05/03/2019 18:20	WG1275813
Ethylbenzene	U			0.158	0.500	1	05/03/2019 18:20	WG1275813
Hexachloro-1,3-butadiene	U			0.157	1.00	1	05/03/2019 18:20	WG1275813
2-Hexanone	U			0.757	5.00	1	05/03/2019 18:20	WG1275813
n-Hexane	U			0.305	5.00	1	05/03/2019 18:20	WG1275813
Iodomethane	U			0.377	10.0	1	05/03/2019 18:20	WG1275813
Isopropylbenzene	U			0.126	0.500	1	05/03/2019 18:20	WG1275813
p-Isopropyltoluene	U			0.138	0.500	1	05/03/2019 18:20	WG1275813
2-Butanone (MEK)	U			1.28	5.00	1	05/03/2019 18:20	WG1275813
Methylene Chloride	U			1.07	2.50	1	05/03/2019 18:20	WG1275813
4-Methyl-2-pentanone (MIBK)	U			0.823	5.00	1	05/03/2019 18:20	WG1275813
Methyl tert-butyl ether	U			0.102	0.500	1	05/03/2019 18:20	WG1275813
Naphthalene	U	UJ	J0	0.174	2.50	1	05/03/2019 18:20	WG1275813
n-Propylbenzene	U			0.162	0.500	1	05/03/2019 18:20	WG1275813
Styrene	U			0.117	0.500	1	05/03/2019 18:20	WG1275813
1,1,2-Tetrachloroethane	U			0.120	0.500	1	05/03/2019 18:20	WG1275813
1,1,2,2-Tetrachloroethane	U			0.130	0.500	1	05/03/2019 18:20	WG1275813

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 5/22/19



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch		
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/03/2019 18:20	WG1275813	¹ Cp	
Tetrachloroethene	U		0.199	0.500	1	05/03/2019 18:20	WG1275813	² Tc	
Toluene	U		0.412	0.500	1	05/03/2019 18:20	WG1275813	³ Ss	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/03/2019 18:20	WG1275813		
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/03/2019 18:20	WG1275813		
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 18:20	WG1275813		
1,1,2-Trichloroethane	U		0.186	0.500	1	05/03/2019 18:20	WG1275813		
Trichloroethene	U		0.153	0.500	1	05/03/2019 18:20	WG1275813		
Trichlorofluoromethane	U	UJ	JO	0.130	2.50	1	05/03/2019 18:20	WG1275813	⁵ Sr
1,2,3-Trichloropropane	U		0.247	2.50	1	05/03/2019 18:20	WG1275813		
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/03/2019 18:20	WG1275813	⁶ Qc	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/03/2019 18:20	WG1275813		
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/03/2019 18:20	WG1275813		
Vinyl acetate	U	UJ	JO	0.645	5.00	1	05/03/2019 18:20	WG1275813	⁷ Gl
Vinyl chloride	3.06	J	JO J4	0.118	0.500	1	05/03/2019 18:20	WG1275813	
Xylenes, Total	U		0.316	1.50	1	05/03/2019 18:20	WG1275813	⁸ Al	
(S) Toluene-d8	98.4			80.0-120		05/03/2019 18:20	WG1275813		
(S) 4-Bromofluorobenzene	104			77.0-126		05/03/2019 18:20	WG1275813		
(S) 1,2-Dichloroethane-d4	95.8			70.0-130		05/03/2019 18:20	WG1275813	⁹ Sc	

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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	
Acetone	3.41	U	JJ4	1.05	25.0	1	05/03/2019 18:41	WG1275813
Acrylonitrile	U			0.873	5.00	1	05/03/2019 18:41	WG1275813
Benzene	3.20			0.0896	0.500	1	05/03/2019 18:41	WG1275813
Bromobenzene	U			0.133	0.500	1	05/03/2019 18:41	WG1275813
Bromodichloromethane	U			0.0800	0.500	1	05/03/2019 18:41	WG1275813
Bromoform	U			0.145	0.500	1	05/03/2019 18:41	WG1275813
Bromomethane	U			0.186	0.500	1	05/03/2019 18:41	WG1275813
n-Butylbenzene	U			0.157	2.50	1	05/03/2019 18:41	WG1275813
sec-Butylbenzene	U			0.143	0.500	1	05/03/2019 18:41	WG1275813
tert-Butylbenzene	U			0.134	0.500	1	05/03/2019 18:41	WG1275813
Carbon disulfide	U			0.101	0.500	1	05/03/2019 18:41	WG1275813
Carbon tetrachloride	U			0.159	0.500	1	05/03/2019 18:41	WG1275813
Chlorobenzene	U			0.140	0.500	1	05/03/2019 18:41	WG1275813
Chlorodibromomethane	U			0.128	0.500	1	05/03/2019 18:41	WG1275813
Chloroethane	U	UJ	JO	0.141	2.50	1	05/03/2019 18:41	WG1275813
Chloroform	U			0.0860	0.500	1	05/03/2019 18:41	WG1275813
Chloromethane	U	UJ	JO	0.153	1.25	1	05/03/2019 18:41	WG1275813
2-Chlorotoluene	U			0.111	0.500	1	05/03/2019 18:41	WG1275813
4-Chlorotoluene	U			0.0972	0.500	1	05/03/2019 18:41	WG1275813
1,2-Dibromo-3-Chloropropane	U			0.325	2.50	1	05/03/2019 18:41	WG1275813
1,2-Dibromoethane	U			0.193	0.500	1	05/03/2019 18:41	WG1275813
Dibromomethane	U			0.117	0.500	1	05/03/2019 18:41	WG1275813
1,2-Dichlorobenzene	U			0.101	0.500	1	05/03/2019 18:41	WG1275813
1,3-Dichlorobenzene	U			0.130	0.500	1	05/03/2019 18:41	WG1275813
1,4-Dichlorobenzene	U			0.121	0.500	1	05/03/2019 18:41	WG1275813
Dichlorodifluoromethane	U			0.127	2.50	1	05/03/2019 18:41	WG1275813
1,1-Dichloroethane	U			0.114	0.500	1	05/03/2019 18:41	WG1275813
1,2-Dichloroethane	U			0.108	0.500	1	05/03/2019 18:41	WG1275813
1,1-Dichloroethene	3.57			0.188	0.500	1	05/03/2019 18:41	WG1275813
cis-1,2-Dichloroethene	970			1.87	10.0	20	05/05/2019 18:24	WG1276343
trans-1,2-Dichloroethene	3.22			0.152	0.500	1	05/03/2019 18:41	WG1275813
1,2-Dichloropropane	U			0.190	0.500	1	05/03/2019 18:41	WG1275813
1,1-Dichloropropene	U			0.128	0.500	1	05/03/2019 18:41	WG1275813
1,3-Dichloropropane	U			0.147	1.00	1	05/03/2019 18:41	WG1275813
cis-1,3-Dichloropropene	U			0.0976	0.500	1	05/03/2019 18:41	WG1275813
trans-1,3-Dichloropropene	U			0.222	0.500	1	05/03/2019 18:41	WG1275813
trans-1,4-Dichloro-2-butene	U			0.257	5.00	1	05/03/2019 18:41	WG1275813
2,2-Dichloropropane	U			0.0929	0.500	1	05/03/2019 18:41	WG1275813
Di-isopropyl ether	U			0.0924	0.500	1	05/03/2019 18:41	WG1275813
Ethylbenzene	U			0.158	0.500	1	05/03/2019 18:41	WG1275813
Hexachloro-1,3-butadiene	U			0.157	1.00	1	05/03/2019 18:41	WG1275813
2-Hexanone	U			0.757	5.00	1	05/03/2019 18:41	WG1275813
n-Hexane	U			0.305	5.00	1	05/03/2019 18:41	WG1275813
Iodomethane	U			0.377	10.0	1	05/03/2019 18:41	WG1275813
Isopropylbenzene	U			0.126	0.500	1	05/03/2019 18:41	WG1275813
p-Isopropyltoluene	U			0.138	0.500	1	05/03/2019 18:41	WG1275813
2-Butanone (MEK)	U			1.28	5.00	1	05/03/2019 18:41	WG1275813
Methylene Chloride	U			1.07	2.50	1	05/03/2019 18:41	WG1275813
4-Methyl-2-pentanone (MIBK)	U			0.823	5.00	1	05/03/2019 18:41	WG1275813
Methyl tert-butyl ether	U			0.102	0.500	1	05/03/2019 18:41	WG1275813
Naphthalene	U	UJ	JO	0.174	2.50	1	05/03/2019 18:41	WG1275813
n-Propylbenzene	U			0.162	0.500	1	05/03/2019 18:41	WG1275813
Styrene	U			0.117	0.500	1	05/03/2019 18:41	WG1275813
1,1,2-Tetrachloroethane	U			0.120	0.500	1	05/03/2019 18:41	WG1275813
1,1,2,2-Tetrachloroethane	U			0.130	0.500	1	05/03/2019 18:41	WG1275813

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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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		
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/03/2019 18:41	WG1275813	¹ Cp	
Tetrachloroethene	419		3.98	10.0	20	05/05/2019 18:24	WG1276343	² Tc	
Toluene	U		0.412	0.500	1	05/03/2019 18:41	WG1275813	³ Ss	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/03/2019 18:41	WG1275813	⁴ Cn	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/03/2019 18:41	WG1275813	⁵ Sr	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 18:41	WG1275813	⁶ Qc	
1,1,2-Trichloroethane	U		0.186	0.500	1	05/03/2019 18:41	WG1275813	⁷ Gl	
Trichloroethene	171		0.153	0.500	1	05/03/2019 18:41	WG1275813	⁸ Al	
Trichlorofluoromethane	U	UJ	JO	0.130	2.50	1	05/03/2019 18:41	WG1275813	⁹ Sc
1,2,3-Trichloropropane	U		0.247	2.50	1	05/03/2019 18:41	WG1275813		
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/03/2019 18:41	WG1275813		
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/03/2019 18:41	WG1275813		
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/03/2019 18:41	WG1275813		
Vinyl acetate	U	UJ	JO	0.645	5.00	1	05/03/2019 18:41	WG1275813	
Vinyl chloride	125	J	JO J4	0.118	0.500	1	05/03/2019 18:41	WG1275813	
Xylenes, Total	U		0.316	1.50	1	05/03/2019 18:41	WG1275813		
(S) Toluene-d8	99.2			80.0-120		05/03/2019 18:41	WG1275813		
(S) Toluene-d8	96.9			80.0-120		05/05/2019 18:24	WG1276343		
(S) 4-Bromofluorobenzene	106			77.0-126		05/03/2019 18:41	WG1275813		
(S) 4-Bromofluorobenzene	101			77.0-126		05/05/2019 18:24	WG1276343		
(S) 1,2-Dichloroethane-d4	95.3			70.0-130		05/03/2019 18:41	WG1275813		
(S) 1,2-Dichloroethane-d4	94.4			70.0-130		05/05/2019 18:24	WG1276343		

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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	
Acetone	2.18	U <u>JJ4</u>	1.05	25.0	1	05/03/2019 19:01	WG1275813	¹ Cp
Acrylonitrile	U		0.873	5.00	1	05/03/2019 19:01	WG1275813	² Tc
Benzene	U		0.0896	0.500	1	05/03/2019 19:01	WG1275813	³ Ss
Bromobenzene	U		0.133	0.500	1	05/03/2019 19:01	WG1275813	⁴ Cn
Bromodichloromethane	U		0.0800	0.500	1	05/03/2019 19:01	WG1275813	⁵ Sr
Bromoform	U		0.145	0.500	1	05/03/2019 19:01	WG1275813	⁶ Qc
Bromomethane	U		0.157	2.50	1	05/03/2019 19:01	WG1275813	⁷ Gl
n-Butylbenzene	U		0.143	0.500	1	05/03/2019 19:01	WG1275813	⁸ Al
sec-Butylbenzene	U		0.134	0.500	1	05/03/2019 19:01	WG1275813	⁹ Sc
tert-Butylbenzene	U		0.183	0.500	1	05/03/2019 19:01	WG1275813	
Carbon disulfide	U		0.101	0.500	1	05/03/2019 19:01	WG1275813	
Carbon tetrachloride	U		0.159	0.500	1	05/03/2019 19:01	WG1275813	
Chlorobenzene	U		0.140	0.500	1	05/03/2019 19:01	WG1275813	
Chlorodibromomethane	U		0.128	0.500	1	05/03/2019 19:01	WG1275813	
Chloroethane	U <u>UJ</u> <u>J0</u>		0.141	2.50	1	05/03/2019 19:01	WG1275813	
Chloroform	U		0.0860	0.500	1	05/03/2019 19:01	WG1275813	
Chloromethane	U <u>UJ</u> <u>J0</u>		0.153	1.25	1	05/03/2019 19:01	WG1275813	
2-Chlorotoluene	U		0.111	0.500	1	05/03/2019 19:01	WG1275813	
4-Chlorotoluene	U		0.0972	0.500	1	05/03/2019 19:01	WG1275813	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/03/2019 19:01	WG1275813	
1,2-Dibromoethane	U		0.193	0.500	1	05/03/2019 19:01	WG1275813	
Dibromomethane	U		0.117	0.500	1	05/03/2019 19:01	WG1275813	
1,2-Dichlorobenzene	U		0.101	0.500	1	05/03/2019 19:01	WG1275813	
1,3-Dichlorobenzene	U		0.130	0.500	1	05/03/2019 19:01	WG1275813	
1,4-Dichlorobenzene	U		0.121	0.500	1	05/03/2019 19:01	WG1275813	
Dichlorodifluoromethane	U		0.127	2.50	1	05/03/2019 19:01	WG1275813	
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 19:01	WG1275813	
1,2-Dichloroethane	U		0.108	0.500	1	05/03/2019 19:01	WG1275813	
1,1-Dichloroethene	U		0.188	0.500	1	05/03/2019 19:01	WG1275813	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/03/2019 19:01	WG1276343	
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/03/2019 19:01	WG1275813	
1,2-Dichloropropane	U		0.190	0.500	1	05/03/2019 19:01	WG1275813	
1,1-Dichloropropene	U		0.128	0.500	1	05/03/2019 19:01	WG1275813	
1,3-Dichloropropane	U		0.147	1.00	1	05/03/2019 19:01	WG1275813	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/03/2019 19:01	WG1275813	
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/03/2019 19:01	WG1275813	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/03/2019 19:01	WG1275813	
2,2-Dichloropropane	U		0.0929	0.500	1	05/03/2019 19:01	WG1275813	
Di-isopropyl ether	U		0.0924	0.500	1	05/03/2019 19:01	WG1275813	
Ethylbenzene	U		0.158	0.500	1	05/03/2019 19:01	WG1275813	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/03/2019 19:01	WG1275813	
2-Hexanone	U		0.757	5.00	1	05/03/2019 19:01	WG1275813	
n-Hexane	U		0.305	5.00	1	05/03/2019 19:01	WG1275813	
Iodomethane	U		0.377	10.0	1	05/03/2019 19:01	WG1275813	
Isopropylbenzene	U		0.126	0.500	1	05/03/2019 19:01	WG1275813	
p-Isopropyltoluene	U		0.138	0.500	1	05/03/2019 19:01	WG1275813	
2-Butanone (MEK)	U		1.28	5.00	1	05/03/2019 19:01	WG1275813	
Methylene Chloride	U		1.07	2.50	1	05/03/2019 19:01	WG1275813	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/03/2019 19:01	WG1275813	
Methyl tert-butyl ether	U		0.102	0.500	1	05/03/2019 19:01	WG1275813	
Naphthalene	U <u>UJ</u> <u>J0</u>		0.174	2.50	1	05/03/2019 19:01	WG1275813	
n-Propylbenzene	U		0.162	0.500	1	05/03/2019 19:01	WG1275813	JC 5/22/19
Styrene	U		0.117	0.500	1	05/03/2019 19:01	WG1275813	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/03/2019 19:01	WG1275813	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/03/2019 19:01	WG1275813	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch		
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/03/2019 19:01	WG1275813	¹ Cp	
Tetrachloroethene	U		0.199	0.500	1	05/05/2019 18:04	WG1276343	² Tc	
Toluene	U		0.412	0.500	1	05/03/2019 19:01	WG1275813	³ Ss	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/03/2019 19:01	WG1275813		
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/03/2019 19:01	WG1275813		
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 19:01	WG1275813		
1,1,2-Trichloroethane	U		0.186	0.500	1	05/03/2019 19:01	WG1275813		
Trichloroethene	U		0.153	0.500	1	05/03/2019 19:01	WG1275813		
Trichlorofluoromethane	U	UJ	JO	0.130	2.50	1	05/03/2019 19:01	WG1275813	⁵ Sr
1,2,3-Trichloropropane	U		0.247	2.50	1	05/03/2019 19:01	WG1275813		
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/03/2019 19:01	WG1275813	⁶ Qc	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/03/2019 19:01	WG1275813		
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/03/2019 19:01	WG1275813		
Vinyl acetate	U	UJ	JO	0.645	5.00	1	05/03/2019 19:01	WG1275813	⁷ Gl
Vinyl chloride	U	UJ	JO J4	0.118	0.500	1	05/03/2019 19:01	WG1275813	
Xylenes, Total	U		0.316	1.50	1	05/03/2019 19:01	WG1275813	⁸ Al	
(S) Toluene-d8	98.8			80.0-120		05/03/2019 19:01	WG1275813		
(S) Toluene-d8	97.5			80.0-120		05/05/2019 18:04	WG1276343		
(S) 4-Bromofluorobenzene	103			77.0-126		05/03/2019 19:01	WG1275813		
(S) 4-Bromofluorobenzene	101			77.0-126		05/05/2019 18:04	WG1276343		
(S) 1,2-Dichloroethane-d4	98.5			70.0-130		05/03/2019 19:01	WG1275813		
(S) 1,2-Dichloroethane-d4	94.4			70.0-130		05/05/2019 18:04	WG1276343	⁹ Sc	

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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	
Acetone	1.90	U <u>JJ4</u>	1.05	25.0	1	05/03/2019 19:21	WG1275813	¹ Cp
Acrylonitrile	U		0.873	5.00	1	05/03/2019 19:21	WG1275813	² Tc
Benzene	U		0.0896	0.500	1	05/03/2019 19:21	WG1275813	³ Ss
Bromobenzene	U		0.133	0.500	1	05/03/2019 19:21	WG1275813	⁴ Cn
Bromodichloromethane	U		0.0800	0.500	1	05/03/2019 19:21	WG1275813	⁵ Sr
Bromoform	U		0.145	0.500	1	05/03/2019 19:21	WG1275813	⁶ Qc
Bromomethane	U		0.157	2.50	1	05/03/2019 19:21	WG1275813	⁷ Gl
n-Butylbenzene	U		0.143	0.500	1	05/03/2019 19:21	WG1275813	⁸ Al
sec-Butylbenzene	U		0.134	0.500	1	05/03/2019 19:21	WG1275813	⁹ Sc
tert-Butylbenzene	U		0.183	0.500	1	05/03/2019 19:21	WG1275813	
Carbon disulfide	U		0.101	0.500	1	05/03/2019 19:21	WG1275813	
Carbon tetrachloride	U		0.159	0.500	1	05/03/2019 19:21	WG1275813	
Chlorobenzene	U		0.140	0.500	1	05/03/2019 19:21	WG1275813	
Chlorodibromomethane	U		0.128	0.500	1	05/03/2019 19:21	WG1275813	
Chloroethane	U <u>UJ</u> <u>J0</u>		0.141	2.50	1	05/03/2019 19:21	WG1275813	
Chloroform	U		0.0860	0.500	1	05/03/2019 19:21	WG1275813	
Chloromethane	U <u>UJ</u> <u>J0</u>		0.153	1.25	1	05/03/2019 19:21	WG1275813	
2-Chlorotoluene	U		0.111	0.500	1	05/03/2019 19:21	WG1275813	
4-Chlorotoluene	U		0.0972	0.500	1	05/03/2019 19:21	WG1275813	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/03/2019 19:21	WG1275813	
1,2-Dibromoethane	U		0.193	0.500	1	05/03/2019 19:21	WG1275813	
Dibromomethane	U		0.117	0.500	1	05/03/2019 19:21	WG1275813	
1,2-Dichlorobenzene	U		0.101	0.500	1	05/03/2019 19:21	WG1275813	
1,3-Dichlorobenzene	U		0.130	0.500	1	05/03/2019 19:21	WG1275813	
1,4-Dichlorobenzene	U		0.121	0.500	1	05/03/2019 19:21	WG1275813	
Dichlorodifluoromethane	U		0.127	2.50	1	05/03/2019 19:21	WG1275813	
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 19:21	WG1275813	
1,2-Dichloroethane	U		0.108	0.500	1	05/03/2019 19:21	WG1275813	
1,1-Dichloroethene	U		0.188	0.500	1	05/03/2019 19:21	WG1275813	
cis-1,2-Dichloroethene	10.9		0.0933	0.500	1	05/03/2019 19:21	WG1275813	
trans-1,2-Dichloroethene	0.161	<u>J</u> <u>J</u>	0.152	0.500	1	05/03/2019 19:21	WG1275813	
1,2-Dichloropropane	U		0.190	0.500	1	05/03/2019 19:21	WG1275813	
1,1-Dichloropropene	U		0.128	0.500	1	05/03/2019 19:21	WG1275813	
1,3-Dichloropropane	U		0.147	1.00	1	05/03/2019 19:21	WG1275813	JC 5/22/19
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/03/2019 19:21	WG1275813	
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/03/2019 19:21	WG1275813	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/03/2019 19:21	WG1275813	
2,2-Dichloropropane	U		0.0929	0.500	1	05/03/2019 19:21	WG1275813	
Di-isopropyl ether	U		0.0924	0.500	1	05/03/2019 19:21	WG1275813	
Ethylbenzene	U		0.158	0.500	1	05/03/2019 19:21	WG1275813	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/03/2019 19:21	WG1275813	
2-Hexanone	U		0.757	5.00	1	05/03/2019 19:21	WG1275813	
n-Hexane	U		0.305	5.00	1	05/03/2019 19:21	WG1275813	
Iodomethane	U		0.377	10.0	1	05/03/2019 19:21	WG1275813	
Isopropylbenzene	U		0.126	0.500	1	05/03/2019 19:21	WG1275813	
p-Isopropyltoluene	U		0.138	0.500	1	05/03/2019 19:21	WG1275813	
2-Butanone (MEK)	U		1.28	5.00	1	05/03/2019 19:21	WG1275813	
Methylene Chloride	U		1.07	2.50	1	05/03/2019 19:21	WG1275813	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/03/2019 19:21	WG1275813	
Methyl tert-butyl ether	U		0.102	0.500	1	05/03/2019 19:21	WG1275813	
Naphthalene	U <u>UJ</u> <u>J0</u>		0.174	2.50	1	05/03/2019 19:21	WG1275813	
n-Propylbenzene	U		0.162	0.500	1	05/03/2019 19:21	WG1275813	
Styrene	U		0.117	0.500	1	05/03/2019 19:21	WG1275813	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/03/2019 19:21	WG1275813	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/03/2019 19:21	WG1275813	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/03/2019 19:21	WG1275813	¹ Cp
Tetrachloroethene	0.224	J	0.199	0.500	1	05/03/2019 19:21	WG1275813	² Tc
Toluene	U		0.412	0.500	1	05/03/2019 19:21	WG1275813	³ Ss
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/03/2019 19:21	WG1275813	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/03/2019 19:21	WG1275813	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 19:21	WG1275813	
1,1,2-Trichloroethane	U		0.186	0.500	1	05/03/2019 19:21	WG1275813	
Trichloroethene	1.12		0.153	0.500	1	05/03/2019 19:21	WG1275813	
Trichlorofluoromethane	U	UJ	0.130	2.50	1	05/03/2019 19:21	WG1275813	
1,2,3-Trichloropropane	U		0.247	2.50	1	05/03/2019 19:21	WG1275813	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/03/2019 19:21	WG1275813	⁶ Qc
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/03/2019 19:21	WG1275813	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/03/2019 19:21	WG1275813	
Vinyl acetate	U	UJ	0.645	5.00	1	05/03/2019 19:21	WG1275813	⁷ GI
Vinyl chloride	U	UJ	0.118	0.500	1	05/03/2019 19:21	WG1275813	
Xylenes, Total	U		0.316	1.50	1	05/03/2019 19:21	WG1275813	⁸ AI
(S) Toluene-d8	98.2			80.0-120		05/03/2019 19:21	WG1275813	
(S) 4-Bromofluorobenzene	103			77.0-126		05/03/2019 19:21	WG1275813	
(S) 1,2-Dichloroethane-d4	96.1			70.0-130		05/03/2019 19:21	WG1275813	⁹ SC

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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	05/02/2019 18:28	WG1275218
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	98.1			78.0-120		05/02/2019 18:28	WG1275218

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
Acetone	4.49	U JJ4	1.05	25.0	1	05/03/2019 19:41	WG1275813
Acrylonitrile	U		0.873	5.00	1	05/03/2019 19:41	WG1275813
Benzene	U		0.0896	0.500	1	05/03/2019 19:41	WG1275813
Bromobenzene	U		0.133	0.500	1	05/03/2019 19:41	WG1275813
Bromodichloromethane	U		0.0800	0.500	1	05/03/2019 19:41	WG1275813
Bromoform	U		0.145	0.500	1	05/03/2019 19:41	WG1275813
Bromomethane	U		0.186	0.500	1	05/03/2019 19:41	WG1275813
n-Butylbenzene	U		0.143	0.500	1	05/03/2019 19:41	WG1275813
sec-Butylbenzene	U		0.134	0.500	1	05/03/2019 19:41	WG1275813
tert-Butylbenzene	U		0.183	0.500	1	05/03/2019 19:41	WG1275813
Carbon disulfide	U		0.101	0.500	1	05/03/2019 19:41	WG1275813
Carbon tetrachloride	U		0.159	0.500	1	05/03/2019 19:41	WG1275813
Chlorobenzene	U		0.140	0.500	1	05/03/2019 19:41	WG1275813
Chlorodibromomethane	U		0.128	0.500	1	05/03/2019 19:41	WG1275813
Chloroethane	U UJ JO		0.141	2.50	1	05/03/2019 19:41	WG1275813
Chloroform	U		0.0860	0.500	1	05/03/2019 19:41	WG1275813
Chloromethane	U UJ JO		0.153	1.25	1	05/03/2019 19:41	WG1275813
2-Chlorotoluene	U		0.111	0.500	1	05/03/2019 19:41	WG1275813
4-Chlorotoluene	U		0.0972	0.500	1	05/03/2019 19:41	WG1275813
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/03/2019 19:41	WG1275813
1,2-Dibromoethane	U		0.193	0.500	1	05/03/2019 19:41	WG1275813
Dibromomethane	U		0.117	0.500	1	05/03/2019 19:41	WG1275813
1,2-Dichlorobenzene	U		0.101	0.500	1	05/03/2019 19:41	WG1275813
1,3-Dichlorobenzene	U		0.130	0.500	1	05/03/2019 19:41	WG1275813
1,4-Dichlorobenzene	U		0.121	0.500	1	05/03/2019 19:41	WG1275813
Dichlorodifluoromethane	U		0.127	2.50	1	05/03/2019 19:41	WG1275813
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 19:41	WG1275813
1,2-Dichloroethane	U		0.108	0.500	1	05/03/2019 19:41	WG1275813
1,1-Dichloroethene	U		0.188	0.500	1	05/03/2019 19:41	WG1275813
cis-1,2-Dichloroethene	5.39		0.0933	0.500	1	05/03/2019 19:41	WG1275813
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/03/2019 19:41	WG1275813
1,2-Dichloropropane	U		0.190	0.500	1	05/03/2019 19:41	WG1275813
1,1-Dichloropropene	U		0.128	0.500	1	05/03/2019 19:41	WG1275813
1,3-Dichloropropane	U		0.147	1.00	1	05/03/2019 19:41	WG1275813
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/03/2019 19:41	WG1275813
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/03/2019 19:41	WG1275813
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/03/2019 19:41	WG1275813
2,2-Dichloropropane	U		0.0929	0.500	1	05/03/2019 19:41	WG1275813
Di-isopropyl ether	U		0.0924	0.500	1	05/03/2019 19:41	WG1275813
Ethylbenzene	U		0.158	0.500	1	05/03/2019 19:41	WG1275813
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/03/2019 19:41	WG1275813
2-Hexanone	U		0.757	5.00	1	05/03/2019 19:41	WG1275813
n-Hexane	U		0.305	5.00	1	05/03/2019 19:41	WG1275813
Iodomethane	U		0.377	10.0	1	05/03/2019 19:41	WG1275813
Isopropylbenzene	U		0.126	0.500	1	05/03/2019 19:41	WG1275813
p-Isopropyltoluene	U		0.138	0.500	1	05/03/2019 19:41	WG1275813
2-Butanone (MEK)	U		1.28	5.00	1	05/03/2019 19:41	WG1275813

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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		
Methylene Chloride	U		1.07	2.50	1	05/03/2019 19:41	WG1275813	¹ Cp	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/03/2019 19:41	WG1275813	² Tc	
Methyl tert-butyl ether	U		0.102	0.500	1	05/03/2019 19:41	WG1275813	³ Ss	
Naphthalene	U	UJ	JO	0.174	2.50	1	05/03/2019 19:41	WG1275813	
n-Propylbenzene	U			0.162	0.500	1	05/03/2019 19:41	WG1275813	
Styrene	U			0.117	0.500	1	05/03/2019 19:41	WG1275813	
1,1,2-Tetrachloroethane	U			0.120	0.500	1	05/03/2019 19:41	WG1275813	
1,1,2,2-Tetrachloroethane	U			0.130	0.500	1	05/03/2019 19:41	WG1275813	
1,1,2-Trichlorotrifluoroethane	U			0.164	0.500	1	05/03/2019 19:41	WG1275813	
Tetrachloroethene	U			0.199	0.500	1	05/03/2019 19:41	WG1275813	
Toluene	U			0.412	0.500	1	05/03/2019 19:41	WG1275813	⁶ Qc
1,2,3-Trichlorobenzene	U			0.164	0.500	1	05/03/2019 19:41	WG1275813	
1,2,4-Trichlorobenzene	U			0.355	0.500	1	05/03/2019 19:41	WG1275813	
1,1,1-Trichloroethane	U			0.0940	0.500	1	05/03/2019 19:41	WG1275813	
1,1,2-Trichloroethane	U			0.186	0.500	1	05/03/2019 19:41	WG1275813	
Trichloroethene	U			0.153	0.500	1	05/03/2019 19:41	WG1275813	
Trichlorofluoromethane	U	UJ	JO	0.130	2.50	1	05/03/2019 19:41	WG1275813	
1,2,3-Trichloropropane	U			0.247	2.50	1	05/03/2019 19:41	WG1275813	
1,2,4-Trimethylbenzene	U			0.123	0.500	1	05/03/2019 19:41	WG1275813	
1,2,3-Trimethylbenzene	U			0.0739	0.500	1	05/03/2019 19:41	WG1275813	
1,3,5-Trimethylbenzene	U			0.124	0.500	1	05/03/2019 19:41	WG1275813	
Vinyl acetate	U	UJ	JO	0.645	5.00	1	05/03/2019 19:41	WG1275813	
Vinyl chloride	15.2	J	JO J4	0.118	0.500	1	05/03/2019 19:41	WG1275813	
Xylenes, Total	U			0.316	1.50	1	05/03/2019 19:41	WG1275813	
(S) Toluene-d8	96.6				80.0-120		05/03/2019 19:41	WG1275813	JC 5/22/19
(S) 4-Bromofluorobenzene	101				77.0-126		05/03/2019 19:41	WG1275813	
(S) 1,2-Dichloroethane-d4	96.1				70.0-130		05/03/2019 19:41	WG1275813	



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	293000		2710	20000	1	05/07/2019 19:50	WG1276578

Sample Narrative:

L1094387-06 WG1276578: Endpoint pH 4.5

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	25500		51.9	1000	1	05/02/2019 11:27	WG1274986
Nitrate	U		22.7	100	1	05/02/2019 11:27	WG1274986
Sulfate	12200		77.4	5000	1	05/02/2019 11:27	WG1274986

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	1580	B	102	1000	1	05/02/2019 21:22	WG1275023

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	5730		15.0	100	1	05/12/2019 22:10	WG1275858
Manganese	795		0.250	5.00	1	05/12/2019 22:10	WG1275858

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	05/02/2019 18:52	WG1275218
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	98.6			78.0-120		05/02/2019 18:52	WG1275218

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	98.1		0.287	0.678	1	05/09/2019 11:39	WG1277421
Ethane	U		0.296	1.29	1	05/09/2019 11:39	WG1277421
Ethene	U		0.422	1.27	1	05/09/2019 11:39	WG1277421

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

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Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	1.21	U <u>JJ4</u>	1.05	25.0	1	05/03/2019 20:01	WG1275813
Acrylonitrile	U		0.873	5.00	1	05/03/2019 20:01	WG1275813
Benzene	U		0.0896	0.500	1	05/03/2019 20:01	WG1275813
Bromobenzene	U		0.133	0.500	1	05/03/2019 20:01	WG1275813
Bromodichloromethane	U		0.0800	0.500	1	05/03/2019 20:01	WG1275813
Bromochloromethane	U		0.145	0.500	1	05/03/2019 20:01	WG1275813
Bromoform	U		0.186	0.500	1	05/03/2019 20:01	WG1275813
Bromomethane	U		0.157	2.50	1	05/03/2019 20:01	WG1275813
n-Butylbenzene	U		0.143	0.500	1	05/03/2019 20:01	WG1275813
sec-Butylbenzene	U		0.134	0.500	1	05/03/2019 20:01	WG1275813
tert-Butylbenzene	U		0.183	0.500	1	05/03/2019 20:01	WG1275813
Carbon disulfide	U		0.101	0.500	1	05/03/2019 20:01	WG1275813
Carbon tetrachloride	U		0.159	0.500	1	05/03/2019 20:01	WG1275813



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	05/03/2019 20:01	WG1275813
Chlorodibromomethane	U		0.128	0.500	1	05/03/2019 20:01	WG1275813
Chloroethane	U	UJ JO	0.141	2.50	1	05/03/2019 20:01	WG1275813
Chloroform	U		0.0860	0.500	1	05/03/2019 20:01	WG1275813
Chloromethane	U	UJ JO	0.153	1.25	1	05/03/2019 20:01	WG1275813
2-Chlorotoluene	U		0.111	0.500	1	05/03/2019 20:01	WG1275813
4-Chlorotoluene	U		0.0972	0.500	1	05/03/2019 20:01	WG1275813
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/03/2019 20:01	WG1275813
1,2-Dibromoethane	U		0.193	0.500	1	05/03/2019 20:01	WG1275813
Dibromomethane	U		0.117	0.500	1	05/03/2019 20:01	WG1275813
1,2-Dichlorobenzene	U		0.101	0.500	1	05/03/2019 20:01	WG1275813
1,3-Dichlorobenzene	U		0.130	0.500	1	05/03/2019 20:01	WG1275813
1,4-Dichlorobenzene	U		0.121	0.500	1	05/03/2019 20:01	WG1275813
Dichlorodifluoromethane	U		0.127	2.50	1	05/03/2019 20:01	WG1275813
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 20:01	WG1275813
1,2-Dichloroethane	U		0.108	0.500	1	05/03/2019 20:01	WG1275813
1,1-Dichloroethene	0.517		0.188	0.500	1	05/03/2019 20:01	WG1275813
cis-1,2-Dichloroethene	1.15		0.0933	0.500	1	05/03/2019 20:01	WG1275813
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/03/2019 20:01	WG1275813
1,2-Dichloropropane	U		0.190	0.500	1	05/03/2019 20:01	WG1275813
1,1-Dichloropropene	U		0.128	0.500	1	05/03/2019 20:01	WG1275813
1,3-Dichloropropane	U		0.147	1.00	1	05/03/2019 20:01	WG1275813
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/03/2019 20:01	WG1275813
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/03/2019 20:01	WG1275813
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/03/2019 20:01	WG1275813
2,2-Dichloropropane	U		0.0929	0.500	1	05/03/2019 20:01	WG1275813
Di-isopropyl ether	U		0.0924	0.500	1	05/03/2019 20:01	WG1275813
Ethylbenzene	U		0.158	0.500	1	05/03/2019 20:01	WG1275813
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/03/2019 20:01	WG1275813
2-Hexanone	U		0.757	5.00	1	05/03/2019 20:01	WG1275813
n-Hexane	U		0.305	5.00	1	05/03/2019 20:01	WG1275813
Iodomethane	U		0.377	10.0	1	05/03/2019 20:01	WG1275813
Isopropylbenzene	U		0.126	0.500	1	05/03/2019 20:01	WG1275813
p-Isopropyltoluene	U		0.138	0.500	1	05/03/2019 20:01	WG1275813
2-Butanone (MEK)	U		1.28	5.00	1	05/03/2019 20:01	WG1275813
Methylene Chloride	U		1.07	2.50	1	05/03/2019 20:01	WG1275813
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/03/2019 20:01	WG1275813
Methyl tert-butyl ether	U		0.102	0.500	1	05/03/2019 20:01	WG1275813
Naphthalene	U	UJ JO	0.174	2.50	1	05/03/2019 20:01	WG1275813
n-Propylbenzene	U		0.162	0.500	1	05/03/2019 20:01	WG1275813
Styrene	U		0.117	0.500	1	05/03/2019 20:01	WG1275813
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/03/2019 20:01	WG1275813
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/03/2019 20:01	WG1275813
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/03/2019 20:01	WG1275813
Tetrachloroethene	0.482	J J	0.199	0.500	1	05/03/2019 20:01	WG1275813
Toluene	U		0.412	0.500	1	05/03/2019 20:01	WG1275813
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/03/2019 20:01	WG1275813
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/03/2019 20:01	WG1275813
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 20:01	WG1275813
1,1,2-Trichloroethane	U		0.186	0.500	1	05/03/2019 20:01	WG1275813
Trichloroethene	1.66		0.153	0.500	1	05/03/2019 20:01	WG1275813
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	05/03/2019 20:01	WG1275813
1,2,3-Trichloropropane	U		0.247	2.50	1	05/03/2019 20:01	WG1275813
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/03/2019 20:01	WG1275813
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/03/2019 20:01	WG1275813
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/03/2019 20:01	WG1275813

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 5/22/19



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Vinyl acetate	U	UJ	JO	0.645	5.00	1	05/03/2019 20:01	WG1275813
Vinyl chloride	U	UJ	JO J4	0.118	0.500	1	05/03/2019 20:01	WG1275813
Xylenes, Total	U			0.316	1.50	1	05/03/2019 20:01	WG1275813
(S) Toluene-d8	99.3			80.0-120		05/03/2019 20:01	WG1275813	
(S) 4-Bromofluorobenzene	102			77.0-126		05/03/2019 20:01	WG1275813	
(S) 1,2-Dichloroethane-d4	99.5			70.0-130		05/03/2019 20:01	WG1275813	

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¹Cp ²Tc ³Ss ⁴Cn ⁵Sr ⁶Qc ⁷Gl ⁸Al ⁹Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	538000		2710	20000	1	05/07/2019 19:58	WG1276578

Sample Narrative:

L1094387-07 WG1276578: Endpoint pH 4.5

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	41600		51.9	1000	1	05/02/2019 12:24	WG1274986
Nitrate	U		22.7	100	1	05/02/2019 12:24	WG1274986
Sulfate	51800		77.4	5000	1	05/02/2019 12:24	WG1274986

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	14200		102	1000	1	05/02/2019 21:58	WG1275023

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	2670		15.0	100	1	05/12/2019 22:15	WG1275858
Manganese	1080		0.250	5.00	1	05/12/2019 22:15	WG1275858

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	JC 5/22/19
Gasoline Range Organics-NWTPH	481		31.6	100	1	05/02/2019 19:16	WG1275218	
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	99.0			78.0-120		05/02/2019 19:16	WG1275218	

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	18000		5.74	13.6	20	05/09/2019 16:35	WG1278760
Ethane	122		0.296	1.29	1	05/09/2019 11:43	WG1277421
Ethene	93.2		0.422	1.27	1	05/09/2019 11:43	WG1277421

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	5.66	U JJ4	1.05	25.0	1	05/03/2019 20:21	WG1275813
Acrylonitrile	U		0.873	5.00	1	05/03/2019 20:21	WG1275813
Benzene	0.188	J J	0.0896	0.500	1	05/03/2019 20:21	WG1275813
Bromobenzene	U		0.133	0.500	1	05/03/2019 20:21	WG1275813
Bromodichloromethane	U		0.0800	0.500	1	05/03/2019 20:21	WG1275813
Bromochloromethane	U		0.145	0.500	1	05/03/2019 20:21	WG1275813
Bromoform	U		0.186	0.500	1	05/03/2019 20:21	WG1275813
Bromomethane	U		0.157	2.50	1	05/03/2019 20:21	WG1275813
n-Butylbenzene	U		0.143	0.500	1	05/03/2019 20:21	WG1275813
sec-Butylbenzene	U		0.134	0.500	1	05/03/2019 20:21	WG1275813
tert-Butylbenzene	U		0.183	0.500	1	05/03/2019 20:21	WG1275813
Carbon disulfide	U		0.101	0.500	1	05/03/2019 20:21	WG1275813
Carbon tetrachloride	U		0.159	0.500	1	05/03/2019 20:21	WG1275813



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	05/03/2019 20:21	WG1275813
Chlorodibromomethane	U		0.128	0.500	1	05/03/2019 20:21	WG1275813
Chloroethane	4.02	J <u>JO</u>	0.141	2.50	1	05/03/2019 20:21	WG1275813
Chloroform	U		0.0860	0.500	1	05/03/2019 20:21	WG1275813
Chloromethane	U	UJ <u>JO</u>	0.153	1.25	1	05/03/2019 20:21	WG1275813
2-Chlorotoluene	U		0.111	0.500	1	05/03/2019 20:21	WG1275813
4-Chlorotoluene	U		0.0972	0.500	1	05/03/2019 20:21	WG1275813
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/03/2019 20:21	WG1275813
1,2-Dibromoethane	U		0.193	0.500	1	05/03/2019 20:21	WG1275813
Dibromomethane	U		0.117	0.500	1	05/03/2019 20:21	WG1275813
1,2-Dichlorobenzene	U		0.101	0.500	1	05/03/2019 20:21	WG1275813
1,3-Dichlorobenzene	U		0.130	0.500	1	05/03/2019 20:21	WG1275813
1,4-Dichlorobenzene	U		0.121	0.500	1	05/03/2019 20:21	WG1275813
Dichlorodifluoromethane	U		0.127	2.50	1	05/03/2019 20:21	WG1275813
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 20:21	WG1275813
1,2-Dichloroethane	U		0.108	0.500	1	05/03/2019 20:21	WG1275813
1,1-Dichloroethene	13.0		0.188	0.500	1	05/03/2019 20:21	WG1275813
cis-1,2-Dichloroethene	1250		1.87	10.0	20	05/05/2019 18:44	WG1276343
trans-1,2-Dichloroethene	14.1		0.152	0.500	1	05/03/2019 20:21	WG1275813
1,2-Dichloropropane	U		0.190	0.500	1	05/03/2019 20:21	WG1275813
1,1-Dichloropropene	U		0.128	0.500	1	05/03/2019 20:21	WG1275813
1,3-Dichloropropane	U		0.147	1.00	1	05/03/2019 20:21	WG1275813
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/03/2019 20:21	WG1275813
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/03/2019 20:21	WG1275813
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/03/2019 20:21	WG1275813
2,2-Dichloropropane	U		0.0929	0.500	1	05/03/2019 20:21	WG1275813
Di-isopropyl ether	U		0.0924	0.500	1	05/03/2019 20:21	WG1275813
Ethylbenzene	U		0.158	0.500	1	05/03/2019 20:21	WG1275813
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/03/2019 20:21	WG1275813
2-Hexanone	U		0.757	5.00	1	05/03/2019 20:21	WG1275813
n-Hexane	U		0.305	5.00	1	05/03/2019 20:21	WG1275813
Iodomethane	U		0.377	10.0	1	05/03/2019 20:21	WG1275813
Isopropylbenzene	U		0.126	0.500	1	05/03/2019 20:21	WG1275813
p-Isopropyltoluene	U		0.138	0.500	1	05/03/2019 20:21	WG1275813
2-Butanone (MEK)	U		1.28	5.00	1	05/03/2019 20:21	WG1275813
Methylene Chloride	U		1.07	2.50	1	05/03/2019 20:21	WG1275813
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/03/2019 20:21	WG1275813
Methyl tert-butyl ether	U		0.102	0.500	1	05/03/2019 20:21	WG1275813
Naphthalene	U	UJ <u>JO</u>	0.174	2.50	1	05/03/2019 20:21	WG1275813
n-Propylbenzene	U		0.162	0.500	1	05/03/2019 20:21	WG1275813
Styrene	U		0.117	0.500	1	05/03/2019 20:21	WG1275813
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/03/2019 20:21	WG1275813
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/03/2019 20:21	WG1275813
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/03/2019 20:21	WG1275813
Tetrachloroethene	U		0.199	0.500	1	05/03/2019 20:21	WG1275813
Toluene	U		0.412	0.500	1	05/03/2019 20:21	WG1275813
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/03/2019 20:21	WG1275813
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/03/2019 20:21	WG1275813
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 20:21	WG1275813
1,1,2-Trichloroethane	U		0.186	0.500	1	05/03/2019 20:21	WG1275813
Trichloroethene	99.9		0.153	0.500	1	05/03/2019 20:21	WG1275813
Trichlorofluoromethane	U	UJ <u>JO</u>	0.130	2.50	1	05/03/2019 20:21	WG1275813
1,2,3-Trichloropropane	U		0.247	2.50	1	05/03/2019 20:21	WG1275813
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/03/2019 20:21	WG1275813
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/03/2019 20:21	WG1275813
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/03/2019 20:21	WG1275813

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 5/22/19



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Vinyl acetate	U	UJ JO	0.645	5.00	1	05/03/2019 20:21	WG1275813	¹ Cp
Vinyl chloride	374		2.36	10.0	20	05/05/2019 18:44	WG1276343	² Tc
Xylenes, Total	U		0.316	1.50	1	05/03/2019 20:21	WG1275813	³ Ss
(S) Toluene-d8	99.0			80.0-120		05/03/2019 20:21	WG1275813	
(S) Toluene-d8	102			80.0-120		05/05/2019 18:44	WG1276343	
(S) 4-Bromofluorobenzene	105			77.0-126		05/03/2019 20:21	WG1275813	
(S) 4-Bromofluorobenzene	105			77.0-126		05/05/2019 18:44	WG1276343	
(S) 1,2-Dichloroethane-d4	94.3			70.0-130		05/03/2019 20:21	WG1275813	
(S) 1,2-Dichloroethane-d4	98.0			70.0-130		05/05/2019 18:44	WG1276343	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

JC 5/22/19



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	4.93	U	JJ4	1.05	25.0	1	05/03/2019 20:42	WG1275813
Acrylonitrile	U			0.873	5.00	1	05/03/2019 20:42	WG1275813
Benzene	U			0.0896	0.500	1	05/03/2019 20:42	WG1275813
Bromobenzene	U			0.133	0.500	1	05/03/2019 20:42	WG1275813
Bromodichloromethane	U			0.0800	0.500	1	05/03/2019 20:42	WG1275813
Bromoform	U			0.145	0.500	1	05/03/2019 20:42	WG1275813
Bromomethane	U			0.186	0.500	1	05/03/2019 20:42	WG1275813
n-Butylbenzene	U			0.157	2.50	1	05/03/2019 20:42	WG1275813
sec-Butylbenzene	U			0.143	0.500	1	05/03/2019 20:42	WG1275813
tert-Butylbenzene	U			0.134	0.500	1	05/03/2019 20:42	WG1275813
Carbon disulfide	U			0.183	0.500	1	05/03/2019 20:42	WG1275813
Carbon tetrachloride	U			0.101	0.500	1	05/03/2019 20:42	WG1275813
Chlorobenzene	U			0.159	0.500	1	05/03/2019 20:42	WG1275813
Chlorodibromomethane	U			0.140	0.500	1	05/03/2019 20:42	WG1275813
Chloroethane	U	UJ	J0	0.128	0.500	1	05/03/2019 20:42	WG1275813
Chloroform	U			0.141	2.50	1	05/03/2019 20:42	WG1275813
Chloromethane	U	UJ	J0	0.134	0.500	1	05/03/2019 20:42	WG1275813
2-Chlorotoluene	U			0.111	0.500	1	05/03/2019 20:42	WG1275813
4-Chlorotoluene	U			0.0972	0.500	1	05/03/2019 20:42	WG1275813
1,2-Dibromo-3-Chloropropane	U			0.325	2.50	1	05/03/2019 20:42	WG1275813
1,2-Dibromoethane	U			0.193	0.500	1	05/03/2019 20:42	WG1275813
Dibromomethane	U			0.117	0.500	1	05/03/2019 20:42	WG1275813
1,2-Dichlorobenzene	U			0.101	0.500	1	05/03/2019 20:42	WG1275813
1,3-Dichlorobenzene	U			0.130	0.500	1	05/03/2019 20:42	WG1275813
1,4-Dichlorobenzene	U			0.121	0.500	1	05/03/2019 20:42	WG1275813
Dichlorodifluoromethane	U			0.127	0.500	1	05/03/2019 20:42	WG1275813
1,1-Dichloroethane	U			0.114	0.500	1	05/03/2019 20:42	WG1275813
1,2-Dichloroethane	U			0.114	0.500	1	05/03/2019 20:42	WG1275813
1,1-Dichloroethene	1.26			0.108	0.500	1	05/03/2019 20:42	WG1275813
cis-1,2-Dichloroethene	372			0.188	0.500	1	05/03/2019 20:42	WG1275813
trans-1,2-Dichloroethene	1.22			0.466	2.50	5	05/03/2019 20:42	WG1275813
1,2-Dichloropropane	U			0.152	0.500	1	05/03/2019 20:42	WG1275813
1,1-Dichloropropene	U			0.190	0.500	1	05/03/2019 20:42	WG1275813
1,3-Dichloropropene	U			0.128	0.500	1	05/03/2019 20:42	WG1275813
cis-1,3-Dichloropropene	U			0.147	0.500	1	05/03/2019 20:42	WG1275813
trans-1,3-Dichloropropene	U			0.0976	0.500	1	05/03/2019 20:42	WG1275813
trans-1,4-Dichloro-2-butene	U			0.222	0.500	1	05/03/2019 20:42	WG1275813
2,2-Dichloropropane	U			0.257	0.500	1	05/03/2019 20:42	WG1275813
Di-isopropyl ether	U			0.0929	0.500	1	05/03/2019 20:42	WG1275813
Ethylbenzene	U			0.0924	0.500	1	05/03/2019 20:42	WG1275813
Hexachloro-1,3-butadiene	U			0.158	0.500	1	05/03/2019 20:42	WG1275813
2-Hexanone	U			0.157	1.00	1	05/03/2019 20:42	WG1275813
n-Hexane	U			0.757	5.00	1	05/03/2019 20:42	WG1275813
Iodomethane	U			0.305	1.00	1	05/03/2019 20:42	WG1275813
Isopropylbenzene	U			0.377	10.0	1	05/03/2019 20:42	WG1275813
p-Isopropyltoluene	U			0.126	0.500	1	05/03/2019 20:42	WG1275813
2-Butanone (MEK)	U			0.138	0.500	1	05/03/2019 20:42	WG1275813
Methylene Chloride	U			1.28	5.00	1	05/03/2019 20:42	WG1275813
4-Methyl-2-pentanone (MIBK)	U			1.07	2.50	1	05/03/2019 20:42	WG1275813
Methyl tert-butyl ether	U			0.823	5.00	1	05/03/2019 20:42	WG1275813
Naphthalene	U	UJ	J0	0.102	0.500	1	05/03/2019 20:42	WG1275813
n-Propylbenzene	U			0.174	2.50	1	05/03/2019 20:42	WG1275813
Styrene	U			0.117	0.500	1	05/03/2019 20:42	WG1275813
1,1,2-Tetrachloroethane	U			0.120	0.500	1	05/03/2019 20:42	WG1275813
1,1,2,2-Tetrachloroethane	U			0.130	0.500	1	05/03/2019 20:42	WG1275813

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 5/22/19



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/03/2019 20:42	WG1275813	¹ Cp
Tetrachloroethene	101		0.199	0.500	1	05/03/2019 20:42	WG1275813	² Tc
Toluene	U		0.412	0.500	1	05/03/2019 20:42	WG1275813	³ Ss
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/03/2019 20:42	WG1275813	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/03/2019 20:42	WG1275813	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 20:42	WG1275813	
1,1,2-Trichloroethane	U		0.186	0.500	1	05/03/2019 20:42	WG1275813	
Trichloroethene	166		0.153	0.500	1	05/03/2019 20:42	WG1275813	
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	05/03/2019 20:42	WG1275813	
1,2,3-Trichloropropane	U		0.247	2.50	1	05/03/2019 20:42	WG1275813	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/03/2019 20:42	WG1275813	⁵ Sr
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/03/2019 20:42	WG1275813	⁶ Qc
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/03/2019 20:42	WG1275813	
Vinyl acetate	U	UJ JO	0.645	5.00	1	05/03/2019 20:42	WG1275813	⁷ Gl
Vinyl chloride	U		0.590	2.50	5	05/05/2019 19:04	WG1276343	
Xylenes, Total	U		0.316	1.50	1	05/03/2019 20:42	WG1275813	⁸ Al
(S) Toluene-d8	96.8			80.0-120		05/03/2019 20:42	WG1275813	
(S) Toluene-d8	96.5			80.0-120		05/05/2019 19:04	WG1276343	
(S) 4-Bromofluorobenzene	101			77.0-126		05/03/2019 20:42	WG1275813	
(S) 4-Bromofluorobenzene	101			77.0-126		05/05/2019 19:04	WG1276343	
(S) 1,2-Dichloroethane-d4	98.7			70.0-130		05/03/2019 20:42	WG1275813	
(S) 1,2-Dichloroethane-d4	94.8			70.0-130		05/05/2019 19:04	WG1276343	⁹ Sc

Sample Narrative:

L1094387-08 WG1275813, WG1276343: Not all compounds reportable at lower dilution.

L1094387-08 WG1275813, WG1276343: Cannot be re-analyzed at lower dilution due to high levels of target analytes.

JC 5/22/19



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	05/02/2019 17:41	WG1275218
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	98.6			78.0-120		05/02/2019 17:41	WG1275218

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	
Acetone	1.22	<u>JJ4</u>	1.05	25.0	1	05/03/2019 17:00	WG1275813	
Acrylonitrile	U		0.873	5.00	1	05/03/2019 17:00	WG1275813	
Benzene	U		0.0896	0.500	1	05/03/2019 17:00	WG1275813	
Bromobenzene	U		0.133	0.500	1	05/03/2019 17:00	WG1275813	
Bromodichloromethane	U		0.0800	0.500	1	05/03/2019 17:00	WG1275813	
Bromoform	U		0.145	0.500	1	05/03/2019 17:00	WG1275813	
Bromomethane	U		0.186	0.500	1	05/03/2019 17:00	WG1275813	
n-Butylbenzene	U		0.143	0.500	1	05/03/2019 17:00	WG1275813	
sec-Butylbenzene	U		0.134	0.500	1	05/03/2019 17:00	WG1275813	
tert-Butylbenzene	U		0.183	0.500	1	05/03/2019 17:00	WG1275813	
Carbon disulfide	U		0.101	0.500	1	05/03/2019 17:00	WG1275813	
Carbon tetrachloride	U		0.159	0.500	1	05/03/2019 17:00	WG1275813	
Chlorobenzene	U		0.140	0.500	1	05/03/2019 17:00	WG1275813	
Chlorodibromomethane	U		0.128	0.500	1	05/03/2019 17:00	WG1275813	
Chloroethane	U	<u>UJ</u>	<u>JO</u>	0.141	2.50	1	05/03/2019 17:00	WG1275813
Chloroform	U		0.0860	0.500	1	05/03/2019 17:00	WG1275813	
Chloromethane	U	<u>UJ</u>	<u>JO</u>	0.153	1.25	1	05/03/2019 17:00	WG1275813
2-Chlorotoluene	U		0.111	0.500	1	05/03/2019 17:00	WG1275813	
4-Chlorotoluene	U		0.0972	0.500	1	05/03/2019 17:00	WG1275813	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/03/2019 17:00	WG1275813	
1,2-Dibromoethane	U		0.193	0.500	1	05/03/2019 17:00	WG1275813	
Dibromomethane	U		0.117	0.500	1	05/03/2019 17:00	WG1275813	
1,2-Dichlorobenzene	U		0.101	0.500	1	05/03/2019 17:00	WG1275813	
1,3-Dichlorobenzene	U		0.130	0.500	1	05/03/2019 17:00	WG1275813	
1,4-Dichlorobenzene	U		0.121	0.500	1	05/03/2019 17:00	WG1275813	
Dichlorodifluoromethane	U		0.127	2.50	1	05/03/2019 17:00	WG1275813	
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 17:00	WG1275813	
1,2-Dichloroethane	U		0.108	0.500	1	05/03/2019 17:00	WG1275813	
1,1-Dichloroethene	U		0.188	0.500	1	05/03/2019 17:00	WG1275813	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/03/2019 17:00	WG1275813	
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/03/2019 17:00	WG1275813	
1,2-Dichloropropane	U		0.190	0.500	1	05/03/2019 17:00	WG1275813	
1,1-Dichloropropene	U		0.128	0.500	1	05/03/2019 17:00	WG1275813	
1,3-Dichloropropane	U		0.147	1.00	1	05/03/2019 17:00	WG1275813	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/03/2019 17:00	WG1275813	
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/03/2019 17:00	WG1275813	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/03/2019 17:00	WG1275813	
2,2-Dichloropropane	U		0.0929	0.500	1	05/03/2019 17:00	WG1275813	
Di-isopropyl ether	U		0.0924	0.500	1	05/03/2019 17:00	WG1275813	
Ethylbenzene	U		0.158	0.500	1	05/03/2019 17:00	WG1275813	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/03/2019 17:00	WG1275813	
2-Hexanone	U		0.757	5.00	1	05/03/2019 17:00	WG1275813	
n-Hexane	U		0.305	5.00	1	05/03/2019 17:00	WG1275813	
Iodomethane	U		0.377	10.0	1	05/03/2019 17:00	WG1275813	
Isopropylbenzene	U		0.126	0.500	1	05/03/2019 17:00	WG1275813	
p-Isopropyltoluene	U		0.138	0.500	1	05/03/2019 17:00	WG1275813	
2-Butanone (MEK)	U		1.28	5.00	1	05/03/2019 17:00	WG1275813	

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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	
Methylene Chloride	U		1.07	2.50	1	05/03/2019 17:00	WG1275813	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/03/2019 17:00	WG1275813	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	05/03/2019 17:00	WG1275813	³ Ss
Naphthalene	U	UJ JO	0.174	2.50	1	05/03/2019 17:00	WG1275813	
n-Propylbenzene	U		0.162	0.500	1	05/03/2019 17:00	WG1275813	
Styrene	U		0.117	0.500	1	05/03/2019 17:00	WG1275813	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/03/2019 17:00	WG1275813	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/03/2019 17:00	WG1275813	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/03/2019 17:00	WG1275813	
Tetrachloroethene	U		0.199	0.500	1	05/03/2019 17:00	WG1275813	
Toluene	U		0.412	0.500	1	05/03/2019 17:00	WG1275813	⁶ Qc
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/03/2019 17:00	WG1275813	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/03/2019 17:00	WG1275813	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 17:00	WG1275813	
1,1,2-Trichloroethane	U		0.186	0.500	1	05/03/2019 17:00	WG1275813	
Trichloroethene	U		0.153	0.500	1	05/03/2019 17:00	WG1275813	
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	05/03/2019 17:00	WG1275813	
1,2,3-Trichloropropane	U		0.247	2.50	1	05/03/2019 17:00	WG1275813	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/03/2019 17:00	WG1275813	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/03/2019 17:00	WG1275813	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/03/2019 17:00	WG1275813	
Vinyl acetate	U	UJ JO	0.645	5.00	1	05/03/2019 17:00	WG1275813	
Vinyl chloride	U	UJ JO J4	0.118	0.500	1	05/03/2019 17:00	WG1275813	
Xylenes, Total	U		0.316	1.50	1	05/03/2019 17:00	WG1275813	
(S) Toluene-d8	98.6			80.0-120		05/03/2019 17:00	WG1275813	
(S) 4-Bromofluorobenzene	105			77.0-126		05/03/2019 17:00	WG1275813	
(S) 1,2-Dichloroethane-d4	98.3			70.0-130		05/03/2019 17:00	WG1275813	⁹ Sc

JC 5/22/19

ANALYTICAL REPORT

May 13, 2019

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

PES Environmental, Inc.- WA

Sample Delivery Group: L1094414
Samples Received: 05/02/2019
Project Number: 1413.001.05,601
Description: American Linen
Site: AMERICAN LINEN
Report To: Brian O'Neal/Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

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



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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW102-050119 L1094414-01 GW

Collected by
K. Zygas
05/01/19 09:45
Received date/time
05/02/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1276579	1	05/08/19 17:18	05/08/19 17:18	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1274986	1	05/02/19 15:46	05/02/19 15:46	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1275310	1	05/03/19 13:44	05/03/19 13:44	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1275858	1	05/07/19 10:24	05/12/19 22:21	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1275218	1	05/02/19 20:52	05/02/19 20:52	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1277421	1	05/09/19 13:12	05/09/19 13:12	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1275905	1	05/04/19 01:24	05/04/19 01:24	JAH	Mt. Juliet, TN

MW160-050119 L1094414-02 GW

Collected by
K. Zygas
05/01/19 12:20
Received date/time
05/02/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1276579	1	05/08/19 17:25	05/08/19 17:25	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1274986	1	05/02/19 16:00	05/02/19 16:00	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1275310	1	05/03/19 13:56	05/03/19 13:56	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1275858	1	05/07/19 10:24	05/12/19 22:26	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1275218	1	05/02/19 21:16	05/02/19 21:16	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1277421	1	05/09/19 13:14	05/09/19 13:14	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1275905	1	05/04/19 01:44	05/04/19 01:44	JAH	Mt. Juliet, TN

EQ-050119 L1094414-03 GW

Collected by
K. Zygas
05/01/19 14:29
Received date/time
05/02/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1276579	1	05/08/19 17:51	05/08/19 17:51	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1274986	1	05/02/19 16:43	05/02/19 16:43	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1275310	1	05/03/19 14:22	05/03/19 14:22	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1275858	1	05/07/19 10:24	05/12/19 22:32	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1275218	1	05/02/19 21:40	05/02/19 21:40	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1277421	1	05/09/19 13:17	05/09/19 13:17	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1275905	1	05/03/19 23:23	05/03/19 23:23	JAH	Mt. Juliet, TN

TRIP BLANK-050119 L1094414-04 GW

Collected by
K. Zygas
05/01/19 00:00
Received date/time
05/02/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1275218	1	05/02/19 18:04	05/02/19 18:04	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1277193	1	05/07/19 14:40	05/07/19 14:40	JHH	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Sample Handling and Receiving

The following analysis were performed from an unpreserved, insufficiently or inadequately preserved sample.

<u>Lab Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
L1094414-03	EQ-050119	9060A

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ SC



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	173000		2710	20000	1	05/08/2019 17:18	WG1276579

Sample Narrative:

L1094414-01 WG1276579: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	5390		51.9	1000	1	05/02/2019 15:46	WG1274986
Nitrate	U		22.7	100	1	05/02/2019 15:46	WG1274986
Sulfate	318	J	77.4	5000	1	05/02/2019 15:46	WG1274986

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	3750		102	1000	1	05/03/2019 13:44	WG1275310

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	11900		15.0	100	1	05/12/2019 22:21	WG1275858
Manganese	405		0.250	5.00	1	05/12/2019 22:21	WG1275858

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	05/02/2019 20:52	WG1275218
(S) a,a,a-Trifluorotoluene(FID)	98.7			78.0-120		05/02/2019 20:52	WG1275218

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	255		0.287	0.678	1	05/09/2019 13:12	WG1277421
Ethane	1.07	J	0.296	1.29	1	05/09/2019 13:12	WG1277421
Ethene	U		0.422	1.27	1	05/09/2019 13:12	WG1277421

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	1.75	B J JO	1.05	25.0	1	05/04/2019 01:24	WG1275905
Acrylonitrile	U		0.873	5.00	1	05/04/2019 01:24	WG1275905
Benzene	U		0.0896	0.500	1	05/04/2019 01:24	WG1275905
Bromobenzene	U		0.133	0.500	1	05/04/2019 01:24	WG1275905
Bromodichloromethane	U		0.0800	0.500	1	05/04/2019 01:24	WG1275905
Bromochloromethane	U		0.145	0.500	1	05/04/2019 01:24	WG1275905
Bromoform	U		0.186	0.500	1	05/04/2019 01:24	WG1275905
Bromomethane	U	JO	0.157	2.50	1	05/04/2019 01:24	WG1275905
n-Butylbenzene	U		0.143	0.500	1	05/04/2019 01:24	WG1275905
sec-Butylbenzene	U		0.134	0.500	1	05/04/2019 01:24	WG1275905
tert-Butylbenzene	U		0.183	0.500	1	05/04/2019 01:24	WG1275905
Carbon disulfide	0.158	J	0.101	0.500	1	05/04/2019 01:24	WG1275905
Carbon tetrachloride	U		0.159	0.500	1	05/04/2019 01:24	WG1275905



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	05/04/2019 01:24	WG1275905	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	05/04/2019 01:24	WG1275905	² Tc
Chloroethane	U	<u>JO</u>	0.141	2.50	1	05/04/2019 01:24	WG1275905	³ Ss
Chloroform	U		0.0860	0.500	1	05/04/2019 01:24	WG1275905	⁴ Cn
Chloromethane	U		0.153	1.25	1	05/04/2019 01:24	WG1275905	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	05/04/2019 01:24	WG1275905	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	05/04/2019 01:24	WG1275905	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/04/2019 01:24	WG1275905	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	05/04/2019 01:24	WG1275905	⁹ Sc
Dibromomethane	U		0.117	0.500	1	05/04/2019 01:24	WG1275905	
1,2-Dichlorobenzene	U		0.101	0.500	1	05/04/2019 01:24	WG1275905	
1,3-Dichlorobenzene	U		0.130	0.500	1	05/04/2019 01:24	WG1275905	
1,4-Dichlorobenzene	U		0.121	0.500	1	05/04/2019 01:24	WG1275905	
Dichlorodifluoromethane	U		0.127	2.50	1	05/04/2019 01:24	WG1275905	
1,1-Dichloroethane	U		0.114	0.500	1	05/04/2019 01:24	WG1275905	
1,2-Dichloroethane	U		0.108	0.500	1	05/04/2019 01:24	WG1275905	
1,1-Dichloroethene	U		0.188	0.500	1	05/04/2019 01:24	WG1275905	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/04/2019 01:24	WG1275905	
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/04/2019 01:24	WG1275905	
1,2-Dichloropropane	U		0.190	0.500	1	05/04/2019 01:24	WG1275905	
1,1-Dichloropropene	U		0.128	0.500	1	05/04/2019 01:24	WG1275905	
1,3-Dichloropropane	U		0.147	1.00	1	05/04/2019 01:24	WG1275905	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/04/2019 01:24	WG1275905	
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/04/2019 01:24	WG1275905	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/04/2019 01:24	WG1275905	
2,2-Dichloropropane	U		0.0929	0.500	1	05/04/2019 01:24	WG1275905	
Di-isopropyl ether	U		0.0924	0.500	1	05/04/2019 01:24	WG1275905	
Ethylbenzene	U		0.158	0.500	1	05/04/2019 01:24	WG1275905	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/04/2019 01:24	WG1275905	
2-Hexanone	U		0.757	5.00	1	05/04/2019 01:24	WG1275905	
n-Hexane	U		0.305	5.00	1	05/04/2019 01:24	WG1275905	
Iodomethane	U		0.377	10.0	1	05/04/2019 01:24	WG1275905	
Isopropylbenzene	U		0.126	0.500	1	05/04/2019 01:24	WG1275905	
p-Isopropyltoluene	U		0.138	0.500	1	05/04/2019 01:24	WG1275905	
2-Butanone (MEK)	U		1.28	5.00	1	05/04/2019 01:24	WG1275905	
Methylene Chloride	U		1.07	2.50	1	05/04/2019 01:24	WG1275905	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/04/2019 01:24	WG1275905	
Methyl tert-butyl ether	U		0.102	0.500	1	05/04/2019 01:24	WG1275905	
Naphthalene	U		0.174	2.50	1	05/04/2019 01:24	WG1275905	
n-Propylbenzene	U		0.162	0.500	1	05/04/2019 01:24	WG1275905	
Styrene	U		0.117	0.500	1	05/04/2019 01:24	WG1275905	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/04/2019 01:24	WG1275905	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/04/2019 01:24	WG1275905	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/04/2019 01:24	WG1275905	
Tetrachloroethene	U		0.199	0.500	1	05/04/2019 01:24	WG1275905	
Toluene	U		0.412	0.500	1	05/04/2019 01:24	WG1275905	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/04/2019 01:24	WG1275905	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/04/2019 01:24	WG1275905	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/04/2019 01:24	WG1275905	
1,1,2-Trichloroethane	U		0.186	0.500	1	05/04/2019 01:24	WG1275905	
Trichloroethene	U		0.153	0.500	1	05/04/2019 01:24	WG1275905	
Trichlorofluoromethane	U	<u>JO</u>	0.130	2.50	1	05/04/2019 01:24	WG1275905	
1,2,3-Trichloropropane	U		0.247	2.50	1	05/04/2019 01:24	WG1275905	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/04/2019 01:24	WG1275905	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/04/2019 01:24	WG1275905	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/04/2019 01:24	WG1275905	

MW102-050119

Collected date/time: 05/01/19 09:45

SAMPLE RESULTS - 01

L1094414

ONE LAB. NATIONWIDE.



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Vinyl acetate	U		0.645	5.00	1	05/04/2019 01:24	WG1275905	¹ Cp
Vinyl chloride	U	<u>J0</u>	0.118	0.500	1	05/04/2019 01:24	WG1275905	² Tc
Xylenes, Total	U		0.316	1.50	1	05/04/2019 01:24	WG1275905	³ Ss
(S) Toluene-d8	98.8			80.0-120		05/04/2019 01:24	WG1275905	
(S) 4-Bromofluorobenzene	104			77.0-126		05/04/2019 01:24	WG1275905	
(S) 1,2-Dichloroethane-d4	96.6			70.0-130		05/04/2019 01:24	WG1275905	



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	197000		2710	20000	1	05/08/2019 17:25	WG1276579

Sample Narrative:

L1094414-02 WG1276579: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	10500		51.9	1000	1	05/02/2019 16:00	WG1274986
Nitrate	U		22.7	100	1	05/02/2019 16:00	WG1274986
Sulfate	1260	J	77.4	5000	1	05/02/2019 16:00	WG1274986

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	3790		102	1000	1	05/03/2019 13:56	WG1275310

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	4600		15.0	100	1	05/12/2019 22:26	WG1275858
Manganese	387		0.250	5.00	1	05/12/2019 22:26	WG1275858

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	05/02/2019 21:16	WG1275218
(S) a,a,a-Trifluorotoluene(FID)	98.5			78.0-120		05/02/2019 21:16	WG1275218

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	1070		0.287	0.678	1	05/09/2019 13:14	WG1277421
Ethane	4.41		0.296	1.29	1	05/09/2019 13:14	WG1277421
Ethene	U		0.422	1.27	1	05/09/2019 13:14	WG1277421

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	4.06	B J JO	1.05	25.0	1	05/04/2019 01:44	WG1275905
Acrylonitrile	U		0.873	5.00	1	05/04/2019 01:44	WG1275905
Benzene	U		0.0896	0.500	1	05/04/2019 01:44	WG1275905
Bromobenzene	U		0.133	0.500	1	05/04/2019 01:44	WG1275905
Bromodichloromethane	U		0.0800	0.500	1	05/04/2019 01:44	WG1275905
Bromochloromethane	U		0.145	0.500	1	05/04/2019 01:44	WG1275905
Bromoform	U		0.186	0.500	1	05/04/2019 01:44	WG1275905
Bromomethane	U	JO	0.157	2.50	1	05/04/2019 01:44	WG1275905
n-Butylbenzene	U		0.143	0.500	1	05/04/2019 01:44	WG1275905
sec-Butylbenzene	U		0.134	0.500	1	05/04/2019 01:44	WG1275905
tert-Butylbenzene	U		0.183	0.500	1	05/04/2019 01:44	WG1275905
Carbon disulfide	U		0.101	0.500	1	05/04/2019 01:44	WG1275905
Carbon tetrachloride	U		0.159	0.500	1	05/04/2019 01:44	WG1275905



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	05/04/2019 01:44	WG1275905
Chlorodibromomethane	U		0.128	0.500	1	05/04/2019 01:44	WG1275905
Chloroethane	U	<u>JO</u>	0.141	2.50	1	05/04/2019 01:44	WG1275905
Chloroform	U		0.0860	0.500	1	05/04/2019 01:44	WG1275905
Chloromethane	U		0.153	1.25	1	05/04/2019 01:44	WG1275905
2-Chlorotoluene	U		0.111	0.500	1	05/04/2019 01:44	WG1275905
4-Chlorotoluene	U		0.0972	0.500	1	05/04/2019 01:44	WG1275905
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/04/2019 01:44	WG1275905
1,2-Dibromoethane	U		0.193	0.500	1	05/04/2019 01:44	WG1275905
Dibromomethane	U		0.117	0.500	1	05/04/2019 01:44	WG1275905
1,2-Dichlorobenzene	U		0.101	0.500	1	05/04/2019 01:44	WG1275905
1,3-Dichlorobenzene	U		0.130	0.500	1	05/04/2019 01:44	WG1275905
1,4-Dichlorobenzene	U		0.121	0.500	1	05/04/2019 01:44	WG1275905
Dichlorodifluoromethane	U		0.127	2.50	1	05/04/2019 01:44	WG1275905
1,1-Dichloroethane	U		0.114	0.500	1	05/04/2019 01:44	WG1275905
1,2-Dichloroethane	U		0.108	0.500	1	05/04/2019 01:44	WG1275905
1,1-Dichloroethene	U		0.188	0.500	1	05/04/2019 01:44	WG1275905
cis-1,2-Dichloroethene	2.58		0.0933	0.500	1	05/04/2019 01:44	WG1275905
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/04/2019 01:44	WG1275905
1,2-Dichloropropane	U		0.190	0.500	1	05/04/2019 01:44	WG1275905
1,1-Dichloropropene	U		0.128	0.500	1	05/04/2019 01:44	WG1275905
1,3-Dichloropropane	U		0.147	1.00	1	05/04/2019 01:44	WG1275905
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/04/2019 01:44	WG1275905
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/04/2019 01:44	WG1275905
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/04/2019 01:44	WG1275905
2,2-Dichloropropane	U		0.0929	0.500	1	05/04/2019 01:44	WG1275905
Di-isopropyl ether	U		0.0924	0.500	1	05/04/2019 01:44	WG1275905
Ethylbenzene	U		0.158	0.500	1	05/04/2019 01:44	WG1275905
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/04/2019 01:44	WG1275905
2-Hexanone	U		0.757	5.00	1	05/04/2019 01:44	WG1275905
n-Hexane	U		0.305	5.00	1	05/04/2019 01:44	WG1275905
Iodomethane	U		0.377	10.0	1	05/04/2019 01:44	WG1275905
Isopropylbenzene	U		0.126	0.500	1	05/04/2019 01:44	WG1275905
p-Isopropyltoluene	U		0.138	0.500	1	05/04/2019 01:44	WG1275905
2-Butanone (MEK)	U		1.28	5.00	1	05/04/2019 01:44	WG1275905
Methylene Chloride	U		1.07	2.50	1	05/04/2019 01:44	WG1275905
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/04/2019 01:44	WG1275905
Methyl tert-butyl ether	U		0.102	0.500	1	05/04/2019 01:44	WG1275905
Naphthalene	U		0.174	2.50	1	05/04/2019 01:44	WG1275905
n-Propylbenzene	U		0.162	0.500	1	05/04/2019 01:44	WG1275905
Styrene	U		0.117	0.500	1	05/04/2019 01:44	WG1275905
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/04/2019 01:44	WG1275905
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/04/2019 01:44	WG1275905
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/04/2019 01:44	WG1275905
Tetrachloroethene	U		0.199	0.500	1	05/04/2019 01:44	WG1275905
Toluene	U		0.412	0.500	1	05/04/2019 01:44	WG1275905
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/04/2019 01:44	WG1275905
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/04/2019 01:44	WG1275905
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/04/2019 01:44	WG1275905
1,1,2-Trichloroethane	U		0.186	0.500	1	05/04/2019 01:44	WG1275905
Trichloroethene	0.513		0.153	0.500	1	05/04/2019 01:44	WG1275905
Trichlorofluoromethane	U	<u>JO</u>	0.130	2.50	1	05/04/2019 01:44	WG1275905
1,2,3-Trichloropropane	U		0.247	2.50	1	05/04/2019 01:44	WG1275905
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/04/2019 01:44	WG1275905
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/04/2019 01:44	WG1275905
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/04/2019 01:44	WG1275905

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ SC

MW160-050119

Collected date/time: 05/01/19 12:20

SAMPLE RESULTS - 02

L1094414

ONE LAB. NATIONWIDE.



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Vinyl acetate	U		0.645	5.00	1	05/04/2019 01:44	WG1275905	¹ Cp
Vinyl chloride	U	<u>J0</u>	0.118	0.500	1	05/04/2019 01:44	WG1275905	² Tc
Xylenes, Total	U		0.316	1.50	1	05/04/2019 01:44	WG1275905	³ Ss
(S) Toluene-d8	95.9			80.0-120		05/04/2019 01:44	WG1275905	
(S) 4-Bromofluorobenzene	104			77.0-126		05/04/2019 01:44	WG1275905	
(S) 1,2-Dichloroethane-d4	98.6			70.0-130		05/04/2019 01:44	WG1275905	



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	9960	<u>B J</u>	2710	20000	1	05/08/2019 17:51	WG1276579

Sample Narrative:

L1094414-03 WG1276579: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	80.6	<u>J P1</u>	51.9	1000	1	05/02/2019 16:43	WG1274986
Nitrate	U		22.7	100	1	05/02/2019 16:43	WG1274986
Sulfate	U		77.4	5000	1	05/02/2019 16:43	WG1274986

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	299	<u>B J</u>	102	1000	1	05/03/2019 14:22	WG1275310

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	39.8	<u>J</u>	15.0	100	1	05/12/2019 22:32	WG1275858
Manganese	2.10	<u>J</u>	0.250	5.00	1	05/12/2019 22:32	WG1275858

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	05/02/2019 21:40	WG1275218
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	98.5			78.0-120		05/02/2019 21:40	WG1275218

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	U		0.287	0.678	1	05/09/2019 13:17	WG1277421
Ethane	U		0.296	1.29	1	05/09/2019 13:17	WG1277421
Ethene	U		0.422	1.27	1	05/09/2019 13:17	WG1277421

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	5.67	<u>B J JO</u>	1.05	25.0	1	05/03/2019 23:23	WG1275905
Acrylonitrile	U		0.873	5.00	1	05/03/2019 23:23	WG1275905
Benzene	U		0.0896	0.500	1	05/03/2019 23:23	WG1275905
Bromobenzene	U		0.133	0.500	1	05/03/2019 23:23	WG1275905
Bromodichloromethane	0.344	<u>J</u>	0.0800	0.500	1	05/03/2019 23:23	WG1275905
Bromochloromethane	U		0.145	0.500	1	05/03/2019 23:23	WG1275905
Bromoform	U		0.186	0.500	1	05/03/2019 23:23	WG1275905
Bromomethane	U	<u>JO</u>	0.157	2.50	1	05/03/2019 23:23	WG1275905
n-Butylbenzene	U		0.143	0.500	1	05/03/2019 23:23	WG1275905
sec-Butylbenzene	U		0.134	0.500	1	05/03/2019 23:23	WG1275905
tert-Butylbenzene	U		0.183	0.500	1	05/03/2019 23:23	WG1275905
Carbon disulfide	U		0.101	0.500	1	05/03/2019 23:23	WG1275905
Carbon tetrachloride	U		0.159	0.500	1	05/03/2019 23:23	WG1275905



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	05/03/2019 23:23	WG1275905
Chlorodibromomethane	0.200	J	0.128	0.500	1	05/03/2019 23:23	WG1275905
Chloroethane	U	JO	0.141	2.50	1	05/03/2019 23:23	WG1275905
Chloroform	0.470	J	0.0860	0.500	1	05/03/2019 23:23	WG1275905
Chloromethane	U		0.153	1.25	1	05/03/2019 23:23	WG1275905
2-Chlorotoluene	U		0.111	0.500	1	05/03/2019 23:23	WG1275905
4-Chlorotoluene	U		0.0972	0.500	1	05/03/2019 23:23	WG1275905
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/03/2019 23:23	WG1275905
1,2-Dibromoethane	U		0.193	0.500	1	05/03/2019 23:23	WG1275905
Dibromomethane	U		0.117	0.500	1	05/03/2019 23:23	WG1275905
1,2-Dichlorobenzene	U		0.101	0.500	1	05/03/2019 23:23	WG1275905
1,3-Dichlorobenzene	U		0.130	0.500	1	05/03/2019 23:23	WG1275905
1,4-Dichlorobenzene	U		0.121	0.500	1	05/03/2019 23:23	WG1275905
Dichlorodifluoromethane	U		0.127	2.50	1	05/03/2019 23:23	WG1275905
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 23:23	WG1275905
1,2-Dichloroethane	U		0.108	0.500	1	05/03/2019 23:23	WG1275905
1,1-Dichloroethene	U		0.188	0.500	1	05/03/2019 23:23	WG1275905
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/03/2019 23:23	WG1275905
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/03/2019 23:23	WG1275905
1,2-Dichloropropane	U		0.190	0.500	1	05/03/2019 23:23	WG1275905
1,1-Dichloropropene	U		0.128	0.500	1	05/03/2019 23:23	WG1275905
1,3-Dichloropropane	U		0.147	1.00	1	05/03/2019 23:23	WG1275905
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/03/2019 23:23	WG1275905
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/03/2019 23:23	WG1275905
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/03/2019 23:23	WG1275905
2,2-Dichloropropane	U		0.0929	0.500	1	05/03/2019 23:23	WG1275905
Di-isopropyl ether	U		0.0924	0.500	1	05/03/2019 23:23	WG1275905
Ethylbenzene	U		0.158	0.500	1	05/03/2019 23:23	WG1275905
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/03/2019 23:23	WG1275905
2-Hexanone	U		0.757	5.00	1	05/03/2019 23:23	WG1275905
n-Hexane	U		0.305	5.00	1	05/03/2019 23:23	WG1275905
Iodomethane	U		0.377	10.0	1	05/03/2019 23:23	WG1275905
Isopropylbenzene	U		0.126	0.500	1	05/03/2019 23:23	WG1275905
p-Isopropyltoluene	U		0.138	0.500	1	05/03/2019 23:23	WG1275905
2-Butanone (MEK)	U		1.28	5.00	1	05/03/2019 23:23	WG1275905
Methylene Chloride	U		1.07	2.50	1	05/03/2019 23:23	WG1275905
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/03/2019 23:23	WG1275905
Methyl tert-butyl ether	U		0.102	0.500	1	05/03/2019 23:23	WG1275905
Naphthalene	U		0.174	2.50	1	05/03/2019 23:23	WG1275905
n-Propylbenzene	U		0.162	0.500	1	05/03/2019 23:23	WG1275905
Styrene	U		0.117	0.500	1	05/03/2019 23:23	WG1275905
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/03/2019 23:23	WG1275905
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/03/2019 23:23	WG1275905
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/03/2019 23:23	WG1275905
Tetrachloroethene	U		0.199	0.500	1	05/03/2019 23:23	WG1275905
Toluene	U		0.412	0.500	1	05/03/2019 23:23	WG1275905
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/03/2019 23:23	WG1275905
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/03/2019 23:23	WG1275905
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 23:23	WG1275905
1,1,2-Trichloroethane	U		0.186	0.500	1	05/03/2019 23:23	WG1275905
Trichloroethene	U		0.153	0.500	1	05/03/2019 23:23	WG1275905
Trichlorofluoromethane	U	JO	0.130	2.50	1	05/03/2019 23:23	WG1275905
1,2,3-Trichloropropane	U		0.247	2.50	1	05/03/2019 23:23	WG1275905
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/03/2019 23:23	WG1275905
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/03/2019 23:23	WG1275905
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/03/2019 23:23	WG1275905

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

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	<u>Batch</u>	
Vinyl acetate	U		0.645	5.00	1	05/03/2019 23:23	WG1275905	¹ Cp
Vinyl chloride	U	<u>J0</u>	0.118	0.500	1	05/03/2019 23:23	WG1275905	² Tc
Xylenes, Total	U		0.316	1.50	1	05/03/2019 23:23	WG1275905	³ Ss
(S) Toluene-d8	98.7			80.0-120		05/03/2019 23:23	WG1275905	⁴ Cn
(S) 4-Bromofluorobenzene	106			77.0-126		05/03/2019 23:23	WG1275905	⁵ Sr
(S) 1,2-Dichloroethane-d4	94.7			70.0-130		05/03/2019 23:23	WG1275905	⁶ Qc



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	05/02/2019 18:04	WG1275218
(S)-a,a,a-Trifluorotoluene(FID)	98.6			78.0-120		05/02/2019 18:04	WG1275218

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
Acetone	1.36	J	1.05	25.0	1	05/07/2019 14:40	WG1277193
Acrylonitrile	U		0.873	5.00	1	05/07/2019 14:40	WG1277193
Benzene	U		0.0896	0.500	1	05/07/2019 14:40	WG1277193
Bromobenzene	U		0.133	0.500	1	05/07/2019 14:40	WG1277193
Bromodichloromethane	U		0.0800	0.500	1	05/07/2019 14:40	WG1277193
Bromoform	U		0.145	0.500	1	05/07/2019 14:40	WG1277193
Bromomethane	U	J0	0.157	2.50	1	05/07/2019 14:40	WG1277193
n-Butylbenzene	U		0.143	0.500	1	05/07/2019 14:40	WG1277193
sec-Butylbenzene	U		0.134	0.500	1	05/07/2019 14:40	WG1277193
tert-Butylbenzene	U		0.183	0.500	1	05/07/2019 14:40	WG1277193
Carbon disulfide	U		0.101	0.500	1	05/07/2019 14:40	WG1277193
Carbon tetrachloride	U		0.159	0.500	1	05/07/2019 14:40	WG1277193
Chlorobenzene	U		0.140	0.500	1	05/07/2019 14:40	WG1277193
Chlorodibromomethane	U		0.128	0.500	1	05/07/2019 14:40	WG1277193
Chloroethane	U	J0	0.141	2.50	1	05/07/2019 14:40	WG1277193
Chloroform	U		0.0860	0.500	1	05/07/2019 14:40	WG1277193
Chloromethane	U	J0	0.153	1.25	1	05/07/2019 14:40	WG1277193
2-Chlorotoluene	U		0.111	0.500	1	05/07/2019 14:40	WG1277193
4-Chlorotoluene	U		0.0972	0.500	1	05/07/2019 14:40	WG1277193
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/07/2019 14:40	WG1277193
1,2-Dibromoethane	U		0.193	0.500	1	05/07/2019 14:40	WG1277193
Dibromomethane	U		0.117	0.500	1	05/07/2019 14:40	WG1277193
1,2-Dichlorobenzene	U		0.101	0.500	1	05/07/2019 14:40	WG1277193
1,3-Dichlorobenzene	U		0.130	0.500	1	05/07/2019 14:40	WG1277193
1,4-Dichlorobenzene	U		0.121	0.500	1	05/07/2019 14:40	WG1277193
Dichlorodifluoromethane	U		0.127	2.50	1	05/07/2019 14:40	WG1277193
1,1-Dichloroethane	U		0.114	0.500	1	05/07/2019 14:40	WG1277193
1,2-Dichloroethane	U		0.108	0.500	1	05/07/2019 14:40	WG1277193
1,1-Dichloroethene	U		0.188	0.500	1	05/07/2019 14:40	WG1277193
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/07/2019 14:40	WG1277193
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/07/2019 14:40	WG1277193
1,2-Dichloropropane	U		0.190	0.500	1	05/07/2019 14:40	WG1277193
1,1-Dichloropropene	U		0.128	0.500	1	05/07/2019 14:40	WG1277193
1,3-Dichloropropane	U		0.147	1.00	1	05/07/2019 14:40	WG1277193
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/07/2019 14:40	WG1277193
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/07/2019 14:40	WG1277193
trans-1,4-Dichloro-2-butene	U	J0	0.257	5.00	1	05/07/2019 14:40	WG1277193
2,2-Dichloropropane	U	J0	0.0929	0.500	1	05/07/2019 14:40	WG1277193
Di-isopropyl ether	U		0.0924	0.500	1	05/07/2019 14:40	WG1277193
Ethylbenzene	U		0.158	0.500	1	05/07/2019 14:40	WG1277193
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/07/2019 14:40	WG1277193
2-Hexanone	U		0.757	5.00	1	05/07/2019 14:40	WG1277193
n-Hexane	U		0.305	5.00	1	05/07/2019 14:40	WG1277193
Iodomethane	U		0.377	10.0	1	05/07/2019 14:40	WG1277193
Isopropylbenzene	U		0.126	0.500	1	05/07/2019 14:40	WG1277193
p-Isopropyltoluene	U		0.138	0.500	1	05/07/2019 14:40	WG1277193
2-Butanone (MEK)	U		1.28	5.00	1	05/07/2019 14:40	WG1277193



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	05/07/2019 14:40	WG1277193	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/07/2019 14:40	WG1277193	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	05/07/2019 14:40	WG1277193	³ Ss
Naphthalene	U		0.174	2.50	1	05/07/2019 14:40	WG1277193	
n-Propylbenzene	U		0.162	0.500	1	05/07/2019 14:40	WG1277193	
Styrene	U		0.117	0.500	1	05/07/2019 14:40	WG1277193	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/07/2019 14:40	WG1277193	
1,1,2,2-Tetrachloroethane	U	J0	0.130	0.500	1	05/07/2019 14:40	WG1277193	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/07/2019 14:40	WG1277193	
Tetrachloroethene	U		0.199	0.500	1	05/07/2019 14:40	WG1277193	
Toluene	U		0.412	0.500	1	05/07/2019 14:40	WG1277193	⁶ Qc
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/07/2019 14:40	WG1277193	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/07/2019 14:40	WG1277193	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/07/2019 14:40	WG1277193	
1,1,2-Trichloroethane	U		0.186	0.500	1	05/07/2019 14:40	WG1277193	
Trichloroethene	U		0.153	0.500	1	05/07/2019 14:40	WG1277193	
Trichlorofluoromethane	U	J4	0.130	2.50	1	05/07/2019 14:40	WG1277193	
1,2,3-Trichloropropane	U	J0	0.247	2.50	1	05/07/2019 14:40	WG1277193	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/07/2019 14:40	WG1277193	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/07/2019 14:40	WG1277193	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/07/2019 14:40	WG1277193	
Vinyl acetate	U		0.645	5.00	1	05/07/2019 14:40	WG1277193	
Vinyl chloride	U	J0 J4	0.118	0.500	1	05/07/2019 14:40	WG1277193	
Xylenes, Total	U		0.316	1.50	1	05/07/2019 14:40	WG1277193	
(S) Toluene-d8	97.5			80.0-120		05/07/2019 14:40	WG1277193	
(S) 4-Bromofluorobenzene	111			77.0-126		05/07/2019 14:40	WG1277193	
(S) 1,2-Dichloroethane-d4	86.1			70.0-130		05/07/2019 14:40	WG1277193	



Method Blank (MB)

(MB) R3409444-1 05/08/19 15:02

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Alkalinity	3670	J	2710	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1094407-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1094407-03 05/08/19 15:09 • (DUP) R3409444-2 05/08/19 15:15

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Alkalinity	371000	370000	1	0.178		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

L1094422-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1094422-01 05/08/19 17:59 • (DUP) R3409444-5 05/08/19 18:06

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Alkalinity	61000	61000	1	0.0689		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3409444-3 05/08/19 16:13

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Alkalinity	100000	102000	102	85.0-115	

Sample Narrative:

LCS: Endpoint pH 4.5

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

WG1274986

Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.



L1094414-01,02,03

Method Blank (MB)

(MB) R3407729-1 05/02/19 09:54

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1094387-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1094387-06 05/02/19 11:27 • (DUP) R3407729-3 05/02/19 11:41

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Chloride	25500	25600	1	0.444		15
Nitrate	U	0.000	1	0.000		15
Sulfate	12200	12200	1	0.406		15

⁹Sc

L1094414-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1094414-03 05/02/19 16:43 • (DUP) R3407729-6 05/02/19 16:58

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Chloride	80.6	0.000	1	200	P1	15
Nitrate	U	0.000	1	0.000		15
Sulfate	U	0.000	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3407729-2 05/02/19 10:08

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Chloride	40000	40100	100	80.0-120	
Nitrate	8000	8050	101	80.0-120	
Sulfate	40000	40500	101	80.0-120	

ACCOUNT:

PES Environmental, Inc.- WA

PROJECT:

1413.001.05,601

SDG:

L1094414

DATE/TIME:

05/13/19 17:36

PAGE:

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WG1274986

Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.



L1094414-01,02,03

L1094387-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1094387-06 05/02/19 11:27 • (MS) R3407729-4 05/02/19 11:55 • (MSD) R3407729-5 05/02/19 12:09

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
Chloride	50000	25500	73800	73800	96.5	96.7	1	80.0-120			0.0809	15
Nitrate	5000	U	4620	4630	92.4	92.6	1	80.0-120			0.195	15
Sulfate	50000	12200	60300	60300	96.3	96.3	1	80.0-120			0.0128	15

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1094414-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1094414-03 05/02/19 16:43 • (MS) R3407729-7 05/02/19 17:12

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	80.6	49600	99.0	1	80.0-120	
Nitrate	5000	U	4830	96.5	1	80.0-120	
Sulfate	50000	U	48800	97.5	1	80.0-120	



L1094414-01,02,03

Method Blank (MB)

(MB) R3408346-1 05/03/19 11:52

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	205	J	102	1000

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1094414-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1094414-02 05/03/19 13:56 • (DUP) R3408346-3 05/03/19 14:09

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
TOC (Total Organic Carbon)	3790	3820	1	0.762		20

L1094708-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1094708-01 05/03/19 17:35 • (DUP) R3408346-6 05/03/19 17:52

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
TOC (Total Organic Carbon)	29300	29500	1	0.749		20

Laboratory Control Sample (LCS)

(LCS) R3408346-2 05/03/19 12:28

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
TOC (Total Organic Carbon)	75000	78200	104	85.0-115	

L1094646-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1094646-16 05/03/19 16:43 • (MS) R3408346-4 05/03/19 17:00 • (MSD) R3408346-5 05/03/19 17:18

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
TOC (Total Organic Carbon)	50000	10500	63500	63300	106	106	1	80.0-120			0.284	20

L1094846-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1094846-01 05/03/19 19:10 • (MS) R3408346-7 05/03/19 19:31 • (MSD) R3408346-8 05/03/19 19:48

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
TOC (Total Organic Carbon)	50000	7290	59600	59700	105	105	1	80.0-120			0.134	20



L1094414-01,02,03

Method Blank (MB)

(MB) R3410561-1 05/12/19 20:24

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Iron	U		15.0	100
Manganese	U		0.250	5.00

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3410561-2 05/12/19 20:30 • (LCSD) R3410561-3 05/12/19 20:35

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 %
Iron	500	515	470	103	94.0	80.0-120			9.08	20
Manganese	50.0	49.3	47.8	98.5	95.6	80.0-120			3.05	20

L1094065-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1094065-01 05/12/19 20:40 • (MS) R3410561-5 05/12/19 20:51 • (MSD) R3410561-6 05/12/19 20:56

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Iron	500	200000	189000	185000	0.000	0.000	1	75.0-125	V	V	2.08	20
Manganese	50.0	5360	5190	4990	0.000	0.000	1	75.0-125	V	V	3.94	20

L1094414-01,02,03,04

Method Blank (MB)

(MB) R3407657-3 05/02/19 14:16

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	98.4			78.0-120

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3407657-1 05/02/19 13:04 • (LCSD) R3407657-2 05/02/19 13:28

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 %
Gasoline Range Organics-NWTPH	5500	5280	5110	95.9	92.9	70.0-124			3.26	20
(S) a,a,a-Trifluorotoluene(FID)			104	104		78.0-120				

L1094387-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1094387-05 05/02/19 18:28 • (MS) R3407657-4 05/02/19 23:14 • (MSD) R3407657-5 05/02/19 23:38

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	U	5760	5590	105	102	1	10.0-155			2.92	21
(S) a,a,a-Trifluorotoluene(FID)				107	107			78.0-120				



L1094414-01,02,03

Method Blank (MB)

(MB) R3409706-1 05/09/19 11:19

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al

L1094039-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1094039-01 05/09/19 11:34 • (DUP) R3409706-2 05/09/19 11:36

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Methane	221	79.2	1	94.5		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

⁹Sc

L1094407-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1094407-05 05/09/19 12:59 • (DUP) R3409706-3 05/09/19 13:02

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Methane	519	536	1	3.25		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

L1095146-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1095146-01 05/09/19 13:38 • (DUP) R3409706-4 05/09/19 13:48

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Methane	4330	4280	1	1.22		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20



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

(LCS) R3409706-5 05/09/19 13:51 • (LCSD) R3409706-6 05/09/19 13:57

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 %
Methane	67.8	78.0	73.3	115	108	85.0-115			6.21	20
Ethane	129	120	115	93.0	89.2	85.0-115			4.26	20
Ethene	127	119	114	93.9	89.9	85.0-115			4.37	20

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



Method Blank (MB)

(MB) R3408790-2 05/03/19 22:42

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	
Acetone	1.29	J	1.05	25.0	¹ Cp
Acrylonitrile	U		0.873	5.00	² Tc
Benzene	U		0.0896	0.500	³ Ss
Bromobenzene	U		0.133	0.500	⁴ Cn
Bromodichloromethane	U		0.0800	0.500	⁵ Sr
Bromochloromethane	U		0.145	0.500	⁶ Qc
Bromoform	U		0.186	0.500	⁷ Gl
Bromomethane	U		0.157	2.50	⁸ Al
n-Butylbenzene	U		0.143	0.500	⁹ Sc
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	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	
1,1-Dichloropropene	U		0.128	0.500	
1,3-Dichloropropene	U		0.147	1.00	
cis-1,3-Dichloropropene	U		0.0976	0.500	
trans-1,3-Dichloropropene	U		0.222	0.500	
2,2-Dichloropropane	U		0.0929	0.500	
n-Hexane	U		0.305	5.00	



Method Blank (MB)

(MB) R3408790-2 05/03/19 22:42

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	
Di-isopropyl ether	U		0.0924	0.500	¹ Cp
Iodomethane	U		0.377	10.0	² Tc
Ethylbenzene	U		0.158	0.500	³ Ss
Hexachloro-1,3-butadiene	U		0.157	1.00	⁴ Cn
2-Hexanone	U		0.757	5.00	⁵ Sr
Isopropylbenzene	U		0.126	0.500	⁶ Qc
p-Isopropyltoluene	U		0.138	0.500	⁷ Gl
2-Butanone (MEK)	U		1.28	5.00	⁸ Al
Methylene Chloride	U		1.07	2.50	⁹ Sc
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	
Tetrachloroethene	U		0.199	0.500	
Vinyl acetate	U		0.645	5.00	
1,1,2-Trichlorotrifluoroethane	U		0.164	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	
Toluene	U		0.412	0.500	
Trichloroethene	U		0.153	0.500	
Trichlorofluoromethane	U		0.130	2.50	
1,2,3-Trichloropropane	U		0.247	2.50	
1,2,3-Trimethylbenzene	U		0.0739	0.500	
1,2,4-Trimethylbenzene	U		0.123	0.500	
1,3,5-Trimethylbenzene	U		0.124	0.500	
Vinyl chloride	U		0.118	0.500	
Xylenes, Total	U		0.316	1.50	
(S) Toluene-d8	105		80.0-120		
(S) 4-Bromofluorobenzene	103		77.0-126		
(S) 1,2-Dichloroethane-d4	101		70.0-130		



Laboratory Control Sample (LCS)

(LCS) R3408790-1 05/03/19 21:42

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Acetone	125	189	152	19.0-160	¹ Cp
Acrylonitrile	125	151	120	55.0-149	² Tc
Bromobenzene	25.0	21.5	86.0	73.0-121	³ Ss
Bromodichloromethane	25.0	22.8	91.4	75.0-120	⁴ Cn
Bromochloromethane	25.0	24.1	96.6	76.0-122	⁵ Sr
Bromoform	25.0	28.0	112	68.0-132	⁶ Qc
Bromomethane	25.0	16.9	67.6	10.0-160	⁷ Gl
trans-1,4-Dichloro-2-butene	25.0	21.1	84.2	33.0-144	⁸ Al
n-Butylbenzene	25.0	20.2	80.7	73.0-125	⁹ Sc
sec-Butylbenzene	25.0	21.2	85.0	75.0-125	
tert-Butylbenzene	25.0	22.1	88.6	76.0-124	
Carbon disulfide	25.0	26.4	106	61.0-128	
Carbon tetrachloride	25.0	25.8	103	68.0-126	
Chlorobenzene	25.0	23.6	94.5	80.0-121	
n-Hexane	25.0	25.7	103	57.0-133	
Chlorodibromomethane	25.0	24.2	96.7	77.0-125	
Iodomethane	125	137	109	33.0-147	
Chloroethane	25.0	14.6	58.5	47.0-150	
Chloroform	25.0	22.1	88.2	73.0-120	
Chloromethane	25.0	23.1	92.4	41.0-142	
2-Chlorotoluene	25.0	21.2	84.9	76.0-123	
Benzene	25.0	25.5	102	70.0-123	
4-Chlorotoluene	25.0	21.6	86.5	75.0-122	
1,2-Dibromo-3-Chloropropane	25.0	25.2	101	58.0-134	
1,2-Dibromoethane	25.0	23.3	93.4	80.0-122	
Dibromomethane	25.0	23.0	91.8	80.0-120	
1,2-Dichlorobenzene	25.0	22.8	91.3	79.0-121	
1,3-Dichlorobenzene	25.0	22.2	88.6	79.0-120	
1,4-Dichlorobenzene	25.0	21.6	86.6	79.0-120	
Dichlorodifluoromethane	25.0	23.3	93.1	51.0-149	
1,1-Dichloroethane	25.0	23.8	95.3	70.0-126	
1,2-Dichloroethane	25.0	21.6	86.3	70.0-128	
1,1-Dichloroethene	25.0	25.3	101	71.0-124	
cis-1,2-Dichloroethene	25.0	24.1	96.3	73.0-120	
trans-1,2-Dichloroethene	25.0	24.2	96.7	73.0-120	
1,2-Dichloropropane	25.0	25.9	103	77.0-125	
1,1-Dichloropropene	25.0	24.0	95.9	74.0-126	
1,3-Dichloropropane	25.0	23.7	94.9	80.0-120	
cis-1,3-Dichloropropene	25.0	23.8	95.1	80.0-123	
Vinyl acetate	125	119	94.9	11.0-160	



Laboratory Control Sample (LCS)

(LCS) R3408790-1 05/03/19 21:42

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
trans-1,3-Dichloropropene	25.0	22.3	89.3	78.0-124	¹ Cp
2,2-Dichloropropane	25.0	30.8	123	58.0-130	² Tc
Di-isopropyl ether	25.0	26.4	105	58.0-138	³ Ss
Hexachloro-1,3-butadiene	25.0	28.4	114	54.0-138	⁴ Cn
2-Hexanone	125	136	109	67.0-149	⁵ Sr
Isopropylbenzene	25.0	24.9	99.6	76.0-127	⁶ Qc
p-Isopropyltoluene	25.0	21.9	87.6	76.0-125	⁷ Gl
2-Butanone (MEK)	125	153	122	44.0-160	⁸ Al
Methylene Chloride	25.0	25.3	101	67.0-120	⁹ Sc
4-Methyl-2-pentanone (MIBK)	125	133	106	68.0-142	
Methyl tert-butyl ether	25.0	24.2	96.8	68.0-125	
Naphthalene	25.0	21.8	87.3	54.0-135	
Ethylbenzene	25.0	24.1	96.4	79.0-123	
n-Propylbenzene	25.0	20.5	82.2	77.0-124	
Styrene	25.0	26.6	106	73.0-130	
1,1,2-Tetrachloroethane	25.0	24.3	97.0	75.0-125	
1,1,2,2-Tetrachloroethane	25.0	21.0	84.0	65.0-130	
Tetrachloroethene	25.0	25.3	101	72.0-132	
1,1,2-Trichlorotrifluoroethane	25.0	24.2	96.7	69.0-132	
1,2,3-Trichlorobenzene	25.0	23.9	95.8	50.0-138	
1,2,4-Trichlorobenzene	25.0	23.9	95.4	57.0-137	
1,1,1-Trichloroethane	25.0	24.1	96.5	73.0-124	
1,1,2-Trichloroethane	25.0	22.5	89.9	80.0-120	
Trichloroethene	25.0	25.5	102	78.0-124	
Trichlorofluoromethane	25.0	15.9	63.7	59.0-147	
1,2,3-Trichloropropane	25.0	20.2	80.7	73.0-130	
1,2,3-Trimethylbenzene	25.0	20.8	83.4	77.0-120	
1,2,4-Trimethylbenzene	25.0	21.0	83.9	76.0-121	
1,3,5-Trimethylbenzene	25.0	21.5	85.9	76.0-122	
Vinyl chloride	25.0	17.0	68.0	67.0-131	
Toluene	25.0	25.0	100	79.0-120	
Xylenes, Total	75.0	73.4	97.9	79.0-123	
(S) Toluene-d8		99.4		80.0-120	
(S) 4-Bromofluorobenzene		109		77.0-126	
(S) 1,2-Dichloroethane-d4		94.0		70.0-130	



Method Blank (MB)

(MB) R3409270-2 05/07/19 12:38

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l	
Acetone	U		1.05	25.0	¹ Cp
Acrylonitrile	U		0.873	5.00	² Tc
Benzene	U		0.0896	0.500	³ Ss
Bromobenzene	U		0.133	0.500	⁴ Cn
Bromochloromethane	U		0.145	0.500	⁵ Sr
Bromodichloromethane	U		0.0800	0.500	⁶ Qc
Bromoform	U		0.186	0.500	⁷ Gl
Bromomethane	U		0.157	2.50	⁸ Al
n-Butylbenzene	U		0.143	0.500	⁹ Sc
Carbon disulfide	U		0.101	0.500	
sec-Butylbenzene	U		0.134	0.500	
tert-Butylbenzene	U		0.183	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-1,4-Dichloro-2-butene	U		0.257	5.00	
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	
n-Hexane	U		0.305	5.00	
trans-1,3-Dichloropropene	U		0.222	0.500	
2,2-Dichloropropane	U		0.0929	0.500	



Method Blank (MB)

(MB) R3409270-2 05/07/19 12:38

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	
Iodomethane	U		0.377	10.0	¹ Cp
Di-isopropyl ether	U		0.0924	0.500	² Tc
Ethylbenzene	U		0.158	0.500	³ Ss
2-Hexanone	U		0.757	5.00	⁴ Cn
Hexachloro-1,3-butadiene	U		0.157	1.00	⁵ Sr
Isopropylbenzene	U		0.126	0.500	⁶ Qc
p-Isopropyltoluene	U		0.138	0.500	⁷ Gl
2-Butanone (MEK)	U		1.28	5.00	⁸ Al
Methylene Chloride	U		1.07	2.50	⁹ Sc
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	
Vinyl acetate	U		0.645	5.00	
n-Propylbenzene	U		0.162	0.500	
Styrene	U		0.117	0.500	
1,1,2-Tetrachloroethane	U		0.120	0.500	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	
Tetrachloroethene	U		0.199	0.500	
Toluene	U		0.412	0.500	
1,1,2-Trichlorotrifluoroethane	U		0.164	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	
1,2,3-Trimethylbenzene	U		0.0739	0.500	
1,2,4-Trimethylbenzene	U		0.123	0.500	
1,3,5-Trimethylbenzene	U		0.124	0.500	
Vinyl chloride	U		0.118	0.500	
Xylenes, Total	U		0.316	1.50	
(S) Toluene-d8	97.7		80.0-120		
(S) 4-Bromofluorobenzene	112		77.0-126		
(S) 1,2-Dichloroethane-d4	86.7		70.0-130		



Laboratory Control Sample (LCS)

(LCS) R3409270-1 05/07/19 09:38

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Bromochloromethane	25.0	24.3	97.2	76.0-122	¹ Cp
trans-1,4-Dichloro-2-butene	25.0	18.4	73.6	33.0-144	² Tc
Carbon disulfide	25.0	27.6	111	61.0-128	³ Ss
n-Hexane	25.0	28.5	114	57.0-133	⁴ Cn
Iodomethane	125	136	109	33.0-147	⁵ Sr
Acetone	125	126	101	19.0-160	⁶ Qc
Acrylonitrile	125	135	108	55.0-149	⁷ Gl
Benzene	25.0	25.9	104	70.0-123	⁸ Al
Bromobenzene	25.0	21.6	86.6	73.0-121	⁹ Sc
Bromodichloromethane	25.0	22.5	90.1	75.0-120	
Bromoform	25.0	27.8	111	68.0-132	
Bromomethane	25.0	16.1	64.2	10.0-160	
n-Butylbenzene	25.0	20.5	82.0	73.0-125	
sec-Butylbenzene	25.0	21.6	86.5	75.0-125	
tert-Butylbenzene	25.0	22.6	90.3	76.0-124	
Carbon tetrachloride	25.0	24.1	96.3	68.0-126	
Chlorobenzene	25.0	24.2	96.8	80.0-121	
Chlorodibromomethane	25.0	24.4	97.6	77.0-125	
Chloroethane	25.0	13.3	53.3	47.0-150	
Chloroform	25.0	22.1	88.3	73.0-120	
Chloromethane	25.0	19.9	79.4	41.0-142	
2-Chlorotoluene	25.0	21.5	86.0	76.0-123	
Vinyl acetate	125	118	94.6	11.0-160	
4-Chlorotoluene	25.0	21.9	87.6	75.0-122	
1,2-Dibromo-3-Chloropropane	25.0	23.4	93.7	58.0-134	
1,2-Dibromoethane	25.0	23.6	94.5	80.0-122	
Dibromomethane	25.0	22.9	91.5	80.0-120	
1,2-Dichlorobenzene	25.0	22.5	90.0	79.0-121	
1,3-Dichlorobenzene	25.0	22.3	89.3	79.0-120	
1,4-Dichlorobenzene	25.0	21.7	86.7	79.0-120	
2-Hexanone	125	133	106	67.0-149	
Dichlorodifluoromethane	25.0	23.5	94.0	51.0-149	
1,1-Dichloroethane	25.0	23.5	94.0	70.0-126	
1,2-Dichloroethane	25.0	20.2	80.9	70.0-128	
1,1-Dichloroethene	25.0	24.7	98.7	71.0-124	
cis-1,2-Dichloroethene	25.0	24.2	96.9	73.0-120	
trans-1,2-Dichloroethene	25.0	24.7	99.0	73.0-120	
1,2-Dichloropropane	25.0	25.5	102	77.0-125	
1,1-Dichloropropene	25.0	24.4	97.5	74.0-126	
1,3-Dichloropropane	25.0	23.7	94.7	80.0-120	



Laboratory Control Sample (LCS)

(LCS) R3409270-1 05/07/19 09:38

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
cis-1,3-Dichloropropene	25.0	24.1	96.4	80.0-123	
trans-1,3-Dichloropropene	25.0	22.6	90.5	78.0-124	
2,2-Dichloropropane	25.0	30.6	123	58.0-130	
Di-isopropyl ether	25.0	25.8	103	58.0-138	
Ethylbenzene	25.0	24.8	99.2	79.0-123	
Hexachloro-1,3-butadiene	25.0	28.1	112	54.0-138	
Isopropylbenzene	25.0	25.5	102	76.0-127	
p-Isopropyltoluene	25.0	21.8	87.1	76.0-125	
2-Butanone (MEK)	125	138	111	44.0-160	
Methylene Chloride	25.0	24.5	97.9	67.0-120	
4-Methyl-2-pentanone (MIBK)	125	124	99.6	68.0-142	
Methyl tert-butyl ether	25.0	23.4	93.4	68.0-125	
Naphthalene	25.0	20.4	81.5	54.0-135	
n-Propylbenzene	25.0	21.2	84.8	77.0-124	
Styrene	25.0	27.7	111	73.0-130	
1,1,2-Tetrachloroethane	25.0	24.0	95.8	75.0-125	
1,1,2,2-Tetrachloroethane	25.0	20.6	82.3	65.0-130	
Tetrachloroethene	25.0	27.0	108	72.0-132	
Toluene	25.0	26.2	105	79.0-120	
1,1,2-Trichlorotrifluoroethane	25.0	24.1	96.2	69.0-132	
1,2,3-Trichlorobenzene	25.0	20.9	83.7	50.0-138	
1,2,4-Trichlorobenzene	25.0	22.3	89.0	57.0-137	
1,1,1-Trichloroethane	25.0	23.7	94.6	73.0-124	
1,1,2-Trichloroethane	25.0	23.0	91.9	80.0-120	
Trichloroethene	25.0	26.1	105	78.0-124	
Trichlorofluoromethane	25.0	14.7	58.7	59.0-147	J4
1,2,3-Trichloropropane	25.0	19.2	76.9	73.0-130	
1,2,3-Trimethylbenzene	25.0	20.6	82.3	77.0-120	
1,2,4-Trimethylbenzene	25.0	21.2	84.9	76.0-121	
1,3,5-Trimethylbenzene	25.0	21.6	86.4	76.0-122	
Vinyl chloride	25.0	14.3	57.3	67.0-131	J4
Xylenes, Total	75.0	76.0	101	79.0-123	
(S) Toluene-d8		101		80.0-120	
(S) 4-Bromofluorobenzene		113		77.0-126	
(S) 1,2-Dichloroethane-d4		83.8		70.0-130	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



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.	¹ Cp
ND	Not detected at the Reporting Limit (or MDL where applicable).	² Tc
RDL	Reported Detection Limit.	³ Ss
Rec.	Recovery.	⁴ Cn
RPD	Relative Percent Difference.	⁵ Sr
SDG	Sample Delivery Group.	⁶ Qc
(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.	⁷ GI
U	Not detected at the Reporting Limit (or MDL where applicable).	⁸ AI
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	⁹ SC
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 met method criteria.
J4	The associated batch QC was outside the established quality control range for accuracy.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
V	The sample concentration is too high to evaluate accurate spike recoveries.



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
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia ¹	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky ^{1,6}	90010
Kentucky ²	16
Louisiana	AI30792
Louisiana ¹	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LA000356
South Carolina	84004
South Dakota	n/a
Tennessee ^{1,4}	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

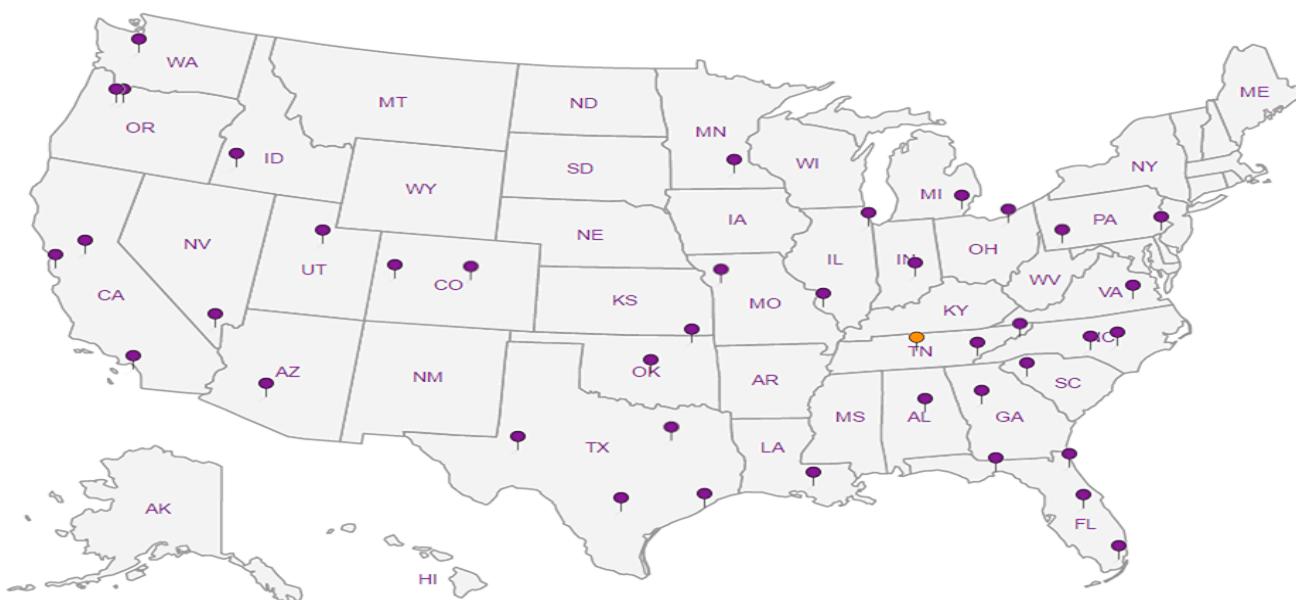
A2LA – ISO 17025	1461.01
A2LA – ISO 17025 ⁵	1461.02
Canada	1461.01
EPA-Crypto	TN00003

AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

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.



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

PES Environmental, Inc. -WA
1215 4th Avenue STE 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 4th Ave STE 1350
Seattle, WA 98161

Report to:
Brian O'Neal/Bill Haldeman

Project **American Linen**

Description:

Phone: **206-529-3980**

Fax: **206-529-3985**

Collected by (print):
L. Zygas

Collected by (signature):
K. Sjoberg

Immediately
Packed on Ice N Y

Client Project #
1413.001.05.601

City/State
Collected: **Seattle, WA**

Lab Project #
PESENVSWA-ALP

Site/Facility ID #
American Linen

P.O. #

Rush? (Lab MUST Be Notified)

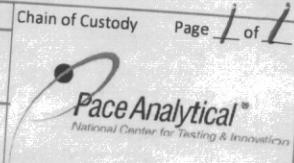
Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #

Date Results Needed

Standard TAT

Pres Chk	Analysis / Container / Preservative					



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



L # **L1094414**
Ta **B083**

Acctnum:

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Remarks	Sample # (lab only)
---------	---------------------

-01

-02

-03

-04

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO3,SO4,Cl* 125mlHDPE-NoPres	Alkalinity 125mlHDPE-NoPres	EEM (RSK175LL) 40mlAmb-HCl	TOC 250mlAmb-HCl	Total Fe Mn 6020 250mlHDPE-HNO3	VOC (8260)	GRO (NWTPH-Gx)
MW102-050119	Grab	GW	120	5/1/19	0945	12	X	X	X	X	X	X	
MW102-050119	Grab	GW	125		1220	12	X	X	X	X	X	X	
EQ-050119	Grab	GW	—		1429	12	X	X	X	X	X	X	
Trip Blank - 050119	Grab	GW	—		—	1	X	X	X	X	X	X	
	Grab	GW	—		—								
	Grab	GW	—		—								
	Grab	GW	—		—								
	Grab	GW	—		—								
	Grab	GW	—		—								
	Grab	GW	—		—								

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

Remarks:

Tier 2 lab QA/QC

Samples returned via:

UPS FedEx Courier

Tracking # **4269 9216 3070**

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

If preservation required by Login: Date/Time

Relinquished by : (Signature)

Relinquished by : (Signature)

Relinquished by : (Signature)

Date: **05-01-19** Time: **1600**

Received by: (Signature)

Trip Blank Received: Yes No

HCl MeOH

TBR

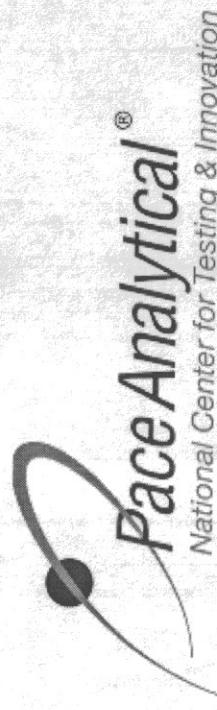
Temp: **13.8F °C** Bottles Received:
2.3±0=2.3 **36**

Date: **5/2/19** Time: **0830**

Received for lab by: (Signature)

Hold:

Condition: **NCF / OK** **TO**



Login #: L1094414	Client: PESENVSWA	Date: 5/2/19	Evaluated by: Troy Dunlap
--------------------------	--------------------------	---------------------	----------------------------------

Non-Conformance (check applicable items)

Sample Integrity	Chain of Custody Clarification	If Broken Container:
Parameter(s) past holding time	Login Clarification Needed	
Temperature not in range	Chain of custody is incomplete	Insufficient packing material around container
Improper container type	Please specify Metals requested	Insufficient packing material inside cooler
X pH not in range.	Please specify TCLP requested.	Improper handling by carrier (FedEx / UPS / Courier
Insufficient sample volume.	Received additional samples not listed on coc.	Sample was frozen
Sample is biphasic.	Sample ids on containers do not match ids on coc	Container lid not intact
Vials received with headspace.	Trip Blank not received.	
Broken container	Client did not "X" analysis.	Received by:
Broken container:	Chain of Custody is missing	Date/Time:
Sufficient sample remains		Temp./Cont. Rec./pH:
		Carrier:
		Tracking#

Login Comments: Metals container for EO-050119 received unpreserved.

Client informed by:	Call	Email	Voice Mail	Date:	Time:
TSR Initials:bjf	Client Contact:				

Login Instructions:

Adjust pH and note time/date of adjustment.



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity	173000		2710	20000	1	05/08/2019 17:18	WG1276579

Sample Narrative:

L1094414-01 WG1276579: Endpoint pH 4.5 headspace

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	5390		51.9	1000	1	05/02/2019 15:46	WG1274986
Nitrate	U		22.7	100	1	05/02/2019 15:46	WG1274986
Sulfate	318	J	77.4	5000	1	05/02/2019 15:46	WG1274986

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	3750		102	1000	1	05/03/2019 13:44	WG1275310

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Iron	11900		15.0	100	1	05/12/2019 22:21	WG1275858
Manganese	405		0.250	5.00	1	05/12/2019 22:21	WG1275858

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	05/02/2019 20:52	WG1275218
(S) a,a,a-Trifluorotoluene(FID)	98.7			78.0-120		05/02/2019 20:52	WG1275218

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methane	255		0.287	0.678	1	05/09/2019 13:12	WG1277421
Ethane	1.07	J	J	0.296	1.29	05/09/2019 13:12	WG1277421
Ethene	U		0.422	1.27	1	05/09/2019 13:12	WG1277421

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	1.75	U	B J J O	1.05	25.0	1	05/04/2019 01:24	WG1275905
Acrylonitrile	U			0.873	5.00	1	05/04/2019 01:24	WG1275905
Benzene	U			0.0896	0.500	1	05/04/2019 01:24	WG1275905
Bromobenzene	U			0.133	0.500	1	05/04/2019 01:24	WG1275905
Bromodichloromethane	U			0.0800	0.500	1	05/04/2019 01:24	WG1275905
Bromochloromethane	U			0.145	0.500	1	05/04/2019 01:24	WG1275905
Bromoform	U			0.186	0.500	1	05/04/2019 01:24	WG1275905
Bromomethane	U	UJ	J O	0.157	2.50	1	05/04/2019 01:24	WG1275905
n-Butylbenzene	U			0.143	0.500	1	05/04/2019 01:24	WG1275905
sec-Butylbenzene	U			0.134	0.500	1	05/04/2019 01:24	WG1275905
tert-Butylbenzene	U			0.183	0.500	1	05/04/2019 01:24	WG1275905
Carbon disulfide	0.158	J	J	0.101	0.500	1	05/04/2019 01:24	WG1275905
Carbon tetrachloride	U			0.159	0.500	1	05/04/2019 01:24	WG1275905

JC 5/16/19



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	05/04/2019 01:24	WG1275905	1 Cp
Chlorodibromomethane	U		0.128	0.500	1	05/04/2019 01:24	WG1275905	2 Tc
Chloroethane	U	UJ JO	0.141	2.50	1	05/04/2019 01:24	WG1275905	3 Ss
Chloroform	U		0.0860	0.500	1	05/04/2019 01:24	WG1275905	4 Cn
Chloromethane	U		0.153	1.25	1	05/04/2019 01:24	WG1275905	5 Sr
2-Chlorotoluene	U		0.111	0.500	1	05/04/2019 01:24	WG1275905	6 Qc
4-Chlorotoluene	U		0.0972	0.500	1	05/04/2019 01:24	WG1275905	7 GI
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/04/2019 01:24	WG1275905	8 Al
1,2-Dibromoethane	U		0.193	0.500	1	05/04/2019 01:24	WG1275905	9 Sc
Dibromomethane	U		0.117	0.500	1	05/04/2019 01:24	WG1275905	
1,2-Dichlorobenzene	U		0.101	0.500	1	05/04/2019 01:24	WG1275905	
1,3-Dichlorobenzene	U		0.130	0.500	1	05/04/2019 01:24	WG1275905	
1,4-Dichlorobenzene	U		0.121	0.500	1	05/04/2019 01:24	WG1275905	
Dichlorodifluoromethane	U		0.127	2.50	1	05/04/2019 01:24	WG1275905	
1,1-Dichloroethane	U		0.114	0.500	1	05/04/2019 01:24	WG1275905	
1,2-Dichloroethane	U		0.108	0.500	1	05/04/2019 01:24	WG1275905	
1,1-Dichloroethene	U		0.188	0.500	1	05/04/2019 01:24	WG1275905	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/04/2019 01:24	WG1275905	
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/04/2019 01:24	WG1275905	
1,2-Dichloropropane	U		0.190	0.500	1	05/04/2019 01:24	WG1275905	
1,1-Dichloropropene	U		0.128	0.500	1	05/04/2019 01:24	WG1275905	
1,3-Dichloropropane	U		0.147	1.00	1	05/04/2019 01:24	WG1275905	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/04/2019 01:24	WG1275905	
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/04/2019 01:24	WG1275905	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/04/2019 01:24	WG1275905	
2,2-Dichloropropane	U		0.0929	0.500	1	05/04/2019 01:24	WG1275905	
Di-isopropyl ether	U		0.0924	0.500	1	05/04/2019 01:24	WG1275905	
Ethylbenzene	U		0.158	0.500	1	05/04/2019 01:24	WG1275905	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/04/2019 01:24	WG1275905	
2-Hexanone	U		0.757	5.00	1	05/04/2019 01:24	WG1275905	
n-Hexane	U		0.305	5.00	1	05/04/2019 01:24	WG1275905	
Iodomethane	U		0.377	10.0	1	05/04/2019 01:24	WG1275905	
Isopropylbenzene	U		0.126	0.500	1	05/04/2019 01:24	WG1275905	
p-Isopropyltoluene	U		0.138	0.500	1	05/04/2019 01:24	WG1275905	
2-Butanone (MEK)	U		1.28	5.00	1	05/04/2019 01:24	WG1275905	
Methylene Chloride	U		1.07	2.50	1	05/04/2019 01:24	WG1275905	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/04/2019 01:24	WG1275905	
Methyl tert-butyl ether	U		0.102	0.500	1	05/04/2019 01:24	WG1275905	
Naphthalene	U		0.174	2.50	1	05/04/2019 01:24	WG1275905	
n-Propylbenzene	U		0.162	0.500	1	05/04/2019 01:24	WG1275905	
Styrene	U		0.117	0.500	1	05/04/2019 01:24	WG1275905	JC 5/16/19
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/04/2019 01:24	WG1275905	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/04/2019 01:24	WG1275905	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/04/2019 01:24	WG1275905	
Tetrachloroethene	U		0.199	0.500	1	05/04/2019 01:24	WG1275905	
Toluene	U		0.412	0.500	1	05/04/2019 01:24	WG1275905	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/04/2019 01:24	WG1275905	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/04/2019 01:24	WG1275905	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/04/2019 01:24	WG1275905	
1,1,2-Trichloroethane	U		0.186	0.500	1	05/04/2019 01:24	WG1275905	
Trichloroethene	U		0.153	0.500	1	05/04/2019 01:24	WG1275905	
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	05/04/2019 01:24	WG1275905	
1,2,3-Trichloropropane	U		0.247	2.50	1	05/04/2019 01:24	WG1275905	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/04/2019 01:24	WG1275905	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/04/2019 01:24	WG1275905	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/04/2019 01:24	WG1275905	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch		
Vinyl acetate	U		0.645	5.00	1	05/04/2019 01:24	WG1275905	¹ Cp	
Vinyl chloride	U	UJ	<u>J0</u>	0.118	0.500	1	05/04/2019 01:24	WG1275905	² Tc
Xylenes, Total	U		0.316	1.50	1	05/04/2019 01:24	WG1275905	³ Ss	
(S) Toluene-d8	98.8			80.0-120		05/04/2019 01:24	WG1275905	⁴ Cn	
(S) 4-Bromofluorobenzene	104			77.0-126		05/04/2019 01:24	WG1275905	⁵ Sr	
(S) 1,2-Dichloroethane-d4	96.6			70.0-130		05/04/2019 01:24	WG1275905	⁶ Qc	

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⁷Gl

⁸Al

⁹Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity	197000		2710	20000	1	05/08/2019 17:25	WG1276579

Sample Narrative:

L1094414-02 WG1276579: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	10500		51.9	1000	1	05/02/2019 16:00	WG1274986
Nitrate	U		22.7	100	1	05/02/2019 16:00	WG1274986
Sulfate	1260	J	77.4	5000	1	05/02/2019 16:00	WG1274986

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	3790		102	1000	1	05/03/2019 13:56	WG1275310

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Iron	4600		15.0	100	1	05/12/2019 22:26	WG1275858
Manganese	387		0.250	5.00	1	05/12/2019 22:26	WG1275858

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	05/02/2019 21:16	WG1275218
(S) a,a,a-Trifluorotoluene(FID)	98.5			78.0-120		05/02/2019 21:16	WG1275218

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methane	1070		0.287	0.678	1	05/09/2019 13:14	WG1277421
Ethane	4.41		0.296	1.29	1	05/09/2019 13:14	WG1277421
Ethene	U		0.422	1.27	1	05/09/2019 13:14	WG1277421

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	4.06	U	B J JO	1.05	25.0	1	05/04/2019 01:44	WG1275905
Acrylonitrile	U			0.873	5.00	1	05/04/2019 01:44	WG1275905
Benzene	U			0.0896	0.500	1	05/04/2019 01:44	WG1275905
Bromobenzene	U			0.133	0.500	1	05/04/2019 01:44	WG1275905
Bromodichloromethane	U			0.0800	0.500	1	05/04/2019 01:44	WG1275905
Bromochloromethane	U			0.145	0.500	1	05/04/2019 01:44	WG1275905
Bromoform	U			0.186	0.500	1	05/04/2019 01:44	WG1275905
Bromomethane	U	UJ	JO	0.157	2.50	1	05/04/2019 01:44	WG1275905
n-Butylbenzene	U			0.143	0.500	1	05/04/2019 01:44	WG1275905
sec-Butylbenzene	U			0.134	0.500	1	05/04/2019 01:44	WG1275905
tert-Butylbenzene	U			0.183	0.500	1	05/04/2019 01:44	WG1275905
Carbon disulfide	U			0.101	0.500	1	05/04/2019 01:44	WG1275905
Carbon tetrachloride	U			0.159	0.500	1	05/04/2019 01:44	WG1275905

JC 5/16/19



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	05/04/2019 01:44	WG1275905	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	05/04/2019 01:44	WG1275905	² Tc
Chloroethane	U	UJ JO	0.141	2.50	1	05/04/2019 01:44	WG1275905	³ Ss
Chloroform	U		0.0860	0.500	1	05/04/2019 01:44	WG1275905	⁴ Cn
Chloromethane	U		0.153	1.25	1	05/04/2019 01:44	WG1275905	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	05/04/2019 01:44	WG1275905	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	05/04/2019 01:44	WG1275905	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/04/2019 01:44	WG1275905	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	05/04/2019 01:44	WG1275905	⁹ Sc
Dibromomethane	U		0.117	0.500	1	05/04/2019 01:44	WG1275905	
1,2-Dichlorobenzene	U		0.101	0.500	1	05/04/2019 01:44	WG1275905	
1,3-Dichlorobenzene	U		0.130	0.500	1	05/04/2019 01:44	WG1275905	
1,4-Dichlorobenzene	U		0.121	0.500	1	05/04/2019 01:44	WG1275905	
Dichlorodifluoromethane	U		0.127	2.50	1	05/04/2019 01:44	WG1275905	
1,1-Dichloroethane	U		0.114	0.500	1	05/04/2019 01:44	WG1275905	
1,2-Dichloroethane	U		0.108	0.500	1	05/04/2019 01:44	WG1275905	
1,1-Dichloroethene	U		0.188	0.500	1	05/04/2019 01:44	WG1275905	
cis-1,2-Dichloroethene	2.58		0.0933	0.500	1	05/04/2019 01:44	WG1275905	
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/04/2019 01:44	WG1275905	
1,2-Dichloropropane	U		0.190	0.500	1	05/04/2019 01:44	WG1275905	
1,1-Dichloropropene	U		0.128	0.500	1	05/04/2019 01:44	WG1275905	
1,3-Dichloropropane	U		0.147	1.00	1	05/04/2019 01:44	WG1275905	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/04/2019 01:44	WG1275905	
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/04/2019 01:44	WG1275905	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/04/2019 01:44	WG1275905	
2,2-Dichloropropane	U		0.0929	0.500	1	05/04/2019 01:44	WG1275905	
Di-isopropyl ether	U		0.0924	0.500	1	05/04/2019 01:44	WG1275905	
Ethylbenzene	U		0.158	0.500	1	05/04/2019 01:44	WG1275905	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/04/2019 01:44	WG1275905	
2-Hexanone	U		0.757	5.00	1	05/04/2019 01:44	WG1275905	
n-Hexane	U		0.305	5.00	1	05/04/2019 01:44	WG1275905	
Iodomethane	U		0.377	10.0	1	05/04/2019 01:44	WG1275905	
Isopropylbenzene	U		0.126	0.500	1	05/04/2019 01:44	WG1275905	
p-Isopropyltoluene	U		0.138	0.500	1	05/04/2019 01:44	WG1275905	
2-Butanone (MEK)	U		1.28	5.00	1	05/04/2019 01:44	WG1275905	JC 5/16/19
Methylene Chloride	U		1.07	2.50	1	05/04/2019 01:44	WG1275905	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/04/2019 01:44	WG1275905	
Methyl tert-butyl ether	U		0.102	0.500	1	05/04/2019 01:44	WG1275905	
Naphthalene	U		0.174	2.50	1	05/04/2019 01:44	WG1275905	
n-Propylbenzene	U		0.162	0.500	1	05/04/2019 01:44	WG1275905	
Styrene	U		0.117	0.500	1	05/04/2019 01:44	WG1275905	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/04/2019 01:44	WG1275905	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/04/2019 01:44	WG1275905	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/04/2019 01:44	WG1275905	
Tetrachloroethene	U		0.199	0.500	1	05/04/2019 01:44	WG1275905	
Toluene	U		0.412	0.500	1	05/04/2019 01:44	WG1275905	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/04/2019 01:44	WG1275905	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/04/2019 01:44	WG1275905	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/04/2019 01:44	WG1275905	
1,1,2-Trichloroethane	U		0.186	0.500	1	05/04/2019 01:44	WG1275905	
Trichloroethene	0.513		0.153	0.500	1	05/04/2019 01:44	WG1275905	
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	05/04/2019 01:44	WG1275905	
1,2,3-Trichloropropane	U		0.247	2.50	1	05/04/2019 01:44	WG1275905	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/04/2019 01:44	WG1275905	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/04/2019 01:44	WG1275905	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/04/2019 01:44	WG1275905	

MW160-050119

Collected date/time: 05/01/19 12:20

SAMPLE RESULTS - 02

L1094414

ONE LAB. NATIONWIDE.



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch		
Vinyl acetate	U		0.645	5.00	1	05/04/2019 01:44	WG1275905	¹ Cp	
Vinyl chloride	U	UJ	<u>J0</u>	0.118	0.500	1	05/04/2019 01:44	WG1275905	² Tc
Xylenes, Total	U		0.316	1.50	1	05/04/2019 01:44	WG1275905	³ Ss	
(S) Toluene-d8	95.9			80.0-120		05/04/2019 01:44	WG1275905		
(S) 4-Bromofluorobenzene	104			77.0-126		05/04/2019 01:44	WG1275905		
(S) 1,2-Dichloroethane-d4	98.6			70.0-130		05/04/2019 01:44	WG1275905		

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

JC 5/16/19



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	9960	<u>B J</u>	2710	20000	1	05/08/2019 17:51	WG1276579

Sample Narrative:

L1094414-03 WG1276579: Endpoint pH 4.5 headspace

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	80.6	<u>J P1</u>	51.9	1000	1	05/02/2019 16:43	WG1274986
Nitrate	U		22.7	100	1	05/02/2019 16:43	WG1274986
Sulfate	U		77.4	5000	1	05/02/2019 16:43	WG1274986

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	299	<u>B J</u>	102	1000	1	05/03/2019 14:22	WG1275310

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
Iron	39.8	<u>J</u>	<u>J</u>	15.0	100	1	05/12/2019 22:32	WG1275858
Manganese	2.10	<u>J</u>	<u>J</u>	0.250	5.00	1	05/12/2019 22:32	WG1275858

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	U		31.6	100	1	05/02/2019 21:40	WG1275218
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	98.5			78.0-120		05/02/2019 21:40	WG1275218

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	U		0.287	0.678	1	05/09/2019 13:17	WG1277421
Ethane	U		0.296	1.29	1	05/09/2019 13:17	WG1277421
Ethene	U		0.422	1.27	1	05/09/2019 13:17	WG1277421

JC 5/16/19

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
Acetone	5.67	<u>B J JO</u>	1.05	25.0	1	05/03/2019 23:23	WG1275905	
Acrylonitrile	U		0.873	5.00	1	05/03/2019 23:23	WG1275905	
Benzene	U		0.0896	0.500	1	05/03/2019 23:23	WG1275905	
Bromobenzene	U		0.133	0.500	1	05/03/2019 23:23	WG1275905	
Bromodichloromethane	0.344	<u>J</u>	<u>J</u>	0.0800	0.500	1	05/03/2019 23:23	WG1275905
Bromochloromethane	U		0.145	0.500	1	05/03/2019 23:23	WG1275905	
Bromoform	U		0.186	0.500	1	05/03/2019 23:23	WG1275905	
Bromomethane	U	<u>UJ</u>	<u>JO</u>	0.157	2.50	1	05/03/2019 23:23	WG1275905
n-Butylbenzene	U		0.143	0.500	1	05/03/2019 23:23	WG1275905	
sec-Butylbenzene	U		0.134	0.500	1	05/03/2019 23:23	WG1275905	
tert-Butylbenzene	U		0.183	0.500	1	05/03/2019 23:23	WG1275905	
Carbon disulfide	U		0.101	0.500	1	05/03/2019 23:23	WG1275905	
Carbon tetrachloride	U		0.159	0.500	1	05/03/2019 23:23	WG1275905	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	05/03/2019 23:23	WG1275905
Chlorodibromomethane	0.200	J J	0.128	0.500	1	05/03/2019 23:23	WG1275905
Chloroethane	U	UJ JO	0.141	2.50	1	05/03/2019 23:23	WG1275905
Chloroform	0.470	J J	0.0860	0.500	1	05/03/2019 23:23	WG1275905
Chloromethane	U		0.153	1.25	1	05/03/2019 23:23	WG1275905
2-Chlorotoluene	U		0.111	0.500	1	05/03/2019 23:23	WG1275905
4-Chlorotoluene	U		0.0972	0.500	1	05/03/2019 23:23	WG1275905
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/03/2019 23:23	WG1275905
1,2-Dibromoethane	U		0.193	0.500	1	05/03/2019 23:23	WG1275905
Dibromomethane	U		0.117	0.500	1	05/03/2019 23:23	WG1275905
1,2-Dichlorobenzene	U		0.101	0.500	1	05/03/2019 23:23	WG1275905
1,3-Dichlorobenzene	U		0.130	0.500	1	05/03/2019 23:23	WG1275905
1,4-Dichlorobenzene	U		0.121	0.500	1	05/03/2019 23:23	WG1275905
Dichlorodifluoromethane	U		0.127	2.50	1	05/03/2019 23:23	WG1275905
1,1-Dichloroethane	U		0.114	0.500	1	05/03/2019 23:23	WG1275905
1,2-Dichloroethane	U		0.108	0.500	1	05/03/2019 23:23	WG1275905
1,1-Dichloroethene	U		0.188	0.500	1	05/03/2019 23:23	WG1275905
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/03/2019 23:23	WG1275905
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/03/2019 23:23	WG1275905
1,2-Dichloropropane	U		0.190	0.500	1	05/03/2019 23:23	WG1275905
1,1-Dichloropropene	U		0.128	0.500	1	05/03/2019 23:23	WG1275905
1,3-Dichloropropane	U		0.147	1.00	1	05/03/2019 23:23	WG1275905
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/03/2019 23:23	WG1275905
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/03/2019 23:23	WG1275905
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/03/2019 23:23	WG1275905
2,2-Dichloropropane	U		0.0929	0.500	1	05/03/2019 23:23	WG1275905
Di-isopropyl ether	U		0.0924	0.500	1	05/03/2019 23:23	WG1275905
Ethylbenzene	U		0.158	0.500	1	05/03/2019 23:23	WG1275905
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/03/2019 23:23	WG1275905
2-Hexanone	U		0.757	5.00	1	05/03/2019 23:23	WG1275905
n-Hexane	U		0.305	5.00	1	05/03/2019 23:23	WG1275905
Iodomethane	U		0.377	10.0	1	05/03/2019 23:23	WG1275905
Isopropylbenzene	U		0.126	0.500	1	05/03/2019 23:23	WG1275905
p-Isopropyltoluene	U		0.138	0.500	1	05/03/2019 23:23	WG1275905
2-Butanone (MEK)	U		1.28	5.00	1	05/03/2019 23:23	WG1275905
Methylene Chloride	U		1.07	2.50	1	05/03/2019 23:23	WG1275905
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/03/2019 23:23	WG1275905
Methyl tert-butyl ether	U		0.102	0.500	1	05/03/2019 23:23	WG1275905
Naphthalene	U		0.174	2.50	1	05/03/2019 23:23	WG1275905
n-Propylbenzene	U		0.162	0.500	1	05/03/2019 23:23	WG1275905
Styrene	U		0.117	0.500	1	05/03/2019 23:23	WG1275905
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/03/2019 23:23	WG1275905
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/03/2019 23:23	WG1275905
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/03/2019 23:23	WG1275905
Tetrachloroethene	U		0.199	0.500	1	05/03/2019 23:23	WG1275905
Toluene	U		0.412	0.500	1	05/03/2019 23:23	WG1275905
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/03/2019 23:23	WG1275905
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/03/2019 23:23	WG1275905
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/03/2019 23:23	WG1275905
1,1,2-Trichloroethane	U		0.186	0.500	1	05/03/2019 23:23	WG1275905
Trichloroethene	U		0.153	0.500	1	05/03/2019 23:23	WG1275905
Trichlorofluoromethane	U	UJ JO	0.130	2.50	1	05/03/2019 23:23	WG1275905
1,2,3-Trichloropropane	U		0.247	2.50	1	05/03/2019 23:23	WG1275905
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/03/2019 23:23	WG1275905
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/03/2019 23:23	WG1275905
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/03/2019 23:23	WG1275905





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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch		
Vinyl acetate	U		0.645	5.00	1	05/03/2019 23:23	WG1275905	¹ Cp	
Vinyl chloride	U	UJ	JO	0.118	0.500	1	05/03/2019 23:23	WG1275905	² Tc
Xylenes, Total	U		0.316	1.50	1	05/03/2019 23:23	WG1275905	³ Ss	
(S) Toluene-d8	98.7			80.0-120		05/03/2019 23:23	WG1275905	⁴ Cn	
(S) 4-Bromofluorobenzene	106			77.0-126		05/03/2019 23:23	WG1275905	⁵ Sr	
(S) 1,2-Dichloroethane-d4	94.7			70.0-130		05/03/2019 23:23	WG1275905	⁶ Qc	

JC 5/16/19

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	05/02/2019 18:04	WG1275218
(S)-a,a,a-Trifluorotoluene(FID)	98.6			78.0-120		05/02/2019 18:04	WG1275218

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
Acetone	1.36	J	1.05	25.0	1	05/07/2019 14:40	WG1277193
Acrylonitrile	U		0.873	5.00	1	05/07/2019 14:40	WG1277193
Benzene	U		0.0896	0.500	1	05/07/2019 14:40	WG1277193
Bromobenzene	U		0.133	0.500	1	05/07/2019 14:40	WG1277193
Bromodichloromethane	U		0.0800	0.500	1	05/07/2019 14:40	WG1277193
Bromoform	U		0.145	0.500	1	05/07/2019 14:40	WG1277193
Bromomethane	U	J0	0.157	2.50	1	05/07/2019 14:40	WG1277193
n-Butylbenzene	U		0.143	0.500	1	05/07/2019 14:40	WG1277193
sec-Butylbenzene	U		0.134	0.500	1	05/07/2019 14:40	WG1277193
tert-Butylbenzene	U		0.183	0.500	1	05/07/2019 14:40	WG1277193
Carbon disulfide	U		0.101	0.500	1	05/07/2019 14:40	WG1277193
Carbon tetrachloride	U		0.159	0.500	1	05/07/2019 14:40	WG1277193
Chlorobenzene	U		0.140	0.500	1	05/07/2019 14:40	WG1277193
Chlorodibromomethane	U		0.128	0.500	1	05/07/2019 14:40	WG1277193
Chloroethane	U	J0	0.141	2.50	1	05/07/2019 14:40	WG1277193
Chloroform	U		0.0860	0.500	1	05/07/2019 14:40	WG1277193
Chloromethane	U	J0	0.153	1.25	1	05/07/2019 14:40	WG1277193
2-Chlorotoluene	U		0.111	0.500	1	05/07/2019 14:40	WG1277193
4-Chlorotoluene	U		0.0972	0.500	1	05/07/2019 14:40	WG1277193
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/07/2019 14:40	WG1277193
1,2-Dibromoethane	U		0.193	0.500	1	05/07/2019 14:40	WG1277193
Dibromomethane	U		0.117	0.500	1	05/07/2019 14:40	WG1277193
1,2-Dichlorobenzene	U		0.101	0.500	1	05/07/2019 14:40	WG1277193
1,3-Dichlorobenzene	U		0.130	0.500	1	05/07/2019 14:40	WG1277193
1,4-Dichlorobenzene	U		0.121	0.500	1	05/07/2019 14:40	WG1277193
Dichlorodifluoromethane	U		0.127	2.50	1	05/07/2019 14:40	WG1277193
1,1-Dichloroethane	U		0.114	0.500	1	05/07/2019 14:40	WG1277193
1,2-Dichloroethane	U		0.108	0.500	1	05/07/2019 14:40	WG1277193
1,1-Dichloroethene	U		0.188	0.500	1	05/07/2019 14:40	WG1277193
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/07/2019 14:40	WG1277193
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/07/2019 14:40	WG1277193
1,2-Dichloropropane	U		0.190	0.500	1	05/07/2019 14:40	WG1277193
1,1-Dichloropropene	U		0.128	0.500	1	05/07/2019 14:40	WG1277193
1,3-Dichloropropane	U		0.147	1.00	1	05/07/2019 14:40	WG1277193
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/07/2019 14:40	WG1277193
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/07/2019 14:40	WG1277193
trans-1,4-Dichloro-2-butene	U	J0	0.257	5.00	1	05/07/2019 14:40	WG1277193
2,2-Dichloropropane	U	J0	0.0929	0.500	1	05/07/2019 14:40	WG1277193
Di-isopropyl ether	U		0.0924	0.500	1	05/07/2019 14:40	WG1277193
Ethylbenzene	U		0.158	0.500	1	05/07/2019 14:40	WG1277193
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/07/2019 14:40	WG1277193
2-Hexanone	U		0.757	5.00	1	05/07/2019 14:40	WG1277193
n-Hexane	U		0.305	5.00	1	05/07/2019 14:40	WG1277193
Iodomethane	U		0.377	10.0	1	05/07/2019 14:40	WG1277193
Isopropylbenzene	U		0.126	0.500	1	05/07/2019 14:40	WG1277193
p-Isopropyltoluene	U		0.138	0.500	1	05/07/2019 14:40	WG1277193
2-Butanone (MEK)	U		1.28	5.00	1	05/07/2019 14:40	WG1277193

JC 5/16/19



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	05/07/2019 14:40	WG1277193	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/07/2019 14:40	WG1277193	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	05/07/2019 14:40	WG1277193	³ Ss
Naphthalene	U		0.174	2.50	1	05/07/2019 14:40	WG1277193	
n-Propylbenzene	U		0.162	0.500	1	05/07/2019 14:40	WG1277193	
Styrene	U		0.117	0.500	1	05/07/2019 14:40	WG1277193	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/07/2019 14:40	WG1277193	
1,1,2,2-Tetrachloroethane	U	J0	0.130	0.500	1	05/07/2019 14:40	WG1277193	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/07/2019 14:40	WG1277193	
Tetrachloroethene	U		0.199	0.500	1	05/07/2019 14:40	WG1277193	
Toluene	U		0.412	0.500	1	05/07/2019 14:40	WG1277193	⁶ Qc
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/07/2019 14:40	WG1277193	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/07/2019 14:40	WG1277193	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/07/2019 14:40	WG1277193	
1,1,2-Trichloroethane	U		0.186	0.500	1	05/07/2019 14:40	WG1277193	
Trichloroethene	U		0.153	0.500	1	05/07/2019 14:40	WG1277193	
Trichlorofluoromethane	U	J4	0.130	2.50	1	05/07/2019 14:40	WG1277193	
1,2,3-Trichloropropane	U	J0	0.247	2.50	1	05/07/2019 14:40	WG1277193	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/07/2019 14:40	WG1277193	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/07/2019 14:40	WG1277193	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/07/2019 14:40	WG1277193	
Vinyl acetate	U		0.645	5.00	1	05/07/2019 14:40	WG1277193	
Vinyl chloride	U	J0 J4	0.118	0.500	1	05/07/2019 14:40	WG1277193	
Xylenes, Total	U		0.316	1.50	1	05/07/2019 14:40	WG1277193	
(S) Toluene-d8	97.5			80.0-120		05/07/2019 14:40	WG1277193	
(S) 4-Bromofluorobenzene	111			77.0-126		05/07/2019 14:40	WG1277193	JC 5/16/19
(S) 1,2-Dichloroethane-d4	86.1			70.0-130		05/07/2019 14:40	WG1277193	

ANALYTICAL REPORT

May 13, 2019

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

PES Environmental, Inc.- WA

Sample Delivery Group: L1095166

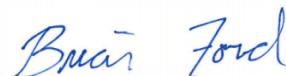
Samples Received: 05/03/2019

Project Number:

Description:

Report To: Brian O'Neal/Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

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

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ONE LAB. NATIONWIDE.



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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



SV01-042919 L1095166-01 Air	Collected by C.D.	Collected date/time 04/29/19 10:25	Received date/time 05/03/19 08:45
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Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1278777	2	05/10/19 18:55	05/10/19 18:55	AMC	Mt. Juliet, TN

SV01-042919-D L1095166-02 Air	Collected by C.D.	Collected date/time 04/29/19 10:30	Received date/time 05/03/19 08:45
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Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1278777	2	05/10/19 19:38	05/10/19 19:38	AMC	Mt. Juliet, TN

SV02-042919 L1095166-03 Air	Collected by C.D.	Collected date/time 04/29/19 11:40	Received date/time 05/03/19 08:45
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Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1278777	2	05/10/19 20:21	05/10/19 20:21	AMC	Mt. Juliet, TN

SV03-042919 L1095166-04 Air	Collected by C.D.	Collected date/time 04/29/19 12:50	Received date/time 05/03/19 08:45
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Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1278777	2	05/10/19 21:03	05/10/19 21:03	AMC	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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 GI
- ⁸ AI
- ⁹ SC



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	4.74	11.3		2	WG1278777
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG1278777
Benzene	71-43-2	78.10	0.400	1.28	ND	ND		2	WG1278777
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG1278777
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG1278777
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG1278777
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG1278777
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG1278777
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG1278777
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG1278777
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG1278777
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG1278777
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG1278777
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG1278777
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG1278777
Cyclohexane	110-82-7	84.20	0.400	1.38	ND	ND		2	WG1278777
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG1278777
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG1278777
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG1278777
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG1278777
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG1278777
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG1278777
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG1278777
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG1278777
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG1278777
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG1278777
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG1278777
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG1278777
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG1278777
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG1278777
Ethanol	64-17-5	46.10	1.26	2.38	13.1	24.6		2	WG1278777
Ethylbenzene	100-41-4	106	0.400	1.73	ND	ND		2	WG1278777
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG1278777
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG1278777
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.428	2.11		2	WG1278777
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG1278777
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG1278777
Heptane	142-82-5	100	0.400	1.64	ND	ND		2	WG1278777
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG1278777
n-Hexane	110-54-3	86.20	0.400	1.41	0.415	1.46		2	WG1278777
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG1278777
Methylene Chloride	75-09-2	84.90	0.400	1.39	2.01	7.00		2	WG1278777
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG1278777
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	ND	ND		2	WG1278777
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG1278777
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG1278777
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG1278777
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG1278777
2-Propanol	67-63-0	60.10	2.50	6.15	ND	ND		2	WG1278777
Propene	115-07-1	42.10	0.800	1.38	ND	ND		2	WG1278777
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG1278777
1,1,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG1278777
Tetrachloroethylene	127-18-4	166	0.400	2.72	ND	ND		2	WG1278777
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG1278777
Toluene	108-88-3	92.10	0.400	1.51	1.70	6.41		2	WG1278777
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG1278777

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

SV01-042919

Collected date/time: 04/29/19 10:25

SAMPLE RESULTS - 01

L1095166

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	<u>Qualifier</u>	Dilution	<u>Batch</u>
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	2.02	11.0		2	WG1278777
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG1278777
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG1278777
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	ND	ND		2	WG1278777
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG1278777
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG1278777
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG1278777
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG1278777
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG1278777
m&p-Xylene	1330-20-7	106	0.800	3.47	0.831	3.60		2	WG1278777
o-Xylene	95-47-6	106	0.400	1.73	ND	ND		2	WG1278777
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		104				WG1278777

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	5.74	13.6		2	WG1278777
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG1278777
Benzene	71-43-2	78.10	0.400	1.28	ND	ND		2	WG1278777
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG1278777
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG1278777
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG1278777
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG1278777
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG1278777
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG1278777
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG1278777
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG1278777
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG1278777
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG1278777
Chloromethane	74-87-3	50.50	0.400	0.826	0.417	0.861		2	WG1278777
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG1278777
Cyclohexane	110-82-7	84.20	0.400	1.38	ND	ND		2	WG1278777
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG1278777
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG1278777
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG1278777
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG1278777
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG1278777
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG1278777
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG1278777
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG1278777
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG1278777
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG1278777
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG1278777
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG1278777
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG1278777
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG1278777
Ethanol	64-17-5	46.10	1.26	2.38	15.2	28.7		2	WG1278777
Ethylbenzene	100-41-4	106	0.400	1.73	ND	ND		2	WG1278777
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG1278777
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG1278777
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.413	2.04		2	WG1278777
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG1278777
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG1278777
Heptane	142-82-5	100	0.400	1.64	ND	ND		2	WG1278777
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG1278777
n-Hexane	110-54-3	86.20	0.400	1.41	0.530	1.87		2	WG1278777
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG1278777
Methylene Chloride	75-09-2	84.90	0.400	1.39	3.21	11.1		2	WG1278777
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG1278777
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	ND	ND		2	WG1278777
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG1278777
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG1278777
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG1278777
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG1278777
2-Propanol	67-63-0	60.10	2.50	6.15	ND	ND		2	WG1278777
Propene	115-07-1	42.10	0.800	1.38	0.903	1.55		2	WG1278777
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG1278777
1,1,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG1278777
Tetrachloroethylene	127-18-4	166	0.400	2.72	ND	ND		2	WG1278777
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG1278777
Toluene	108-88-3	92.10	0.400	1.51	1.79	6.74		2	WG1278777
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG1278777

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1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	<u>Qualifier</u>	Dilution	<u>Batch</u>
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	2.32	12.6		2	WG1278777
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG1278777
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG1278777
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	ND	ND		2	WG1278777
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG1278777
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG1278777
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG1278777
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG1278777
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG1278777
m&p-Xylene	1330-20-7	106	0.800	3.47	0.929	4.03		2	WG1278777
o-Xylene	95-47-6	106	0.400	1.73	ND	ND		2	WG1278777
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		105				WG1278777

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	5.89	14.0		2	WG1278777
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG1278777
Benzene	71-43-2	78.10	0.400	1.28	ND	ND		2	WG1278777
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG1278777
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG1278777
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG1278777
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG1278777
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG1278777
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG1278777
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG1278777
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG1278777
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG1278777
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG1278777
Chloromethane	74-87-3	50.50	0.400	0.826	0.412	0.851		2	WG1278777
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG1278777
Cyclohexane	110-82-7	84.20	0.400	1.38	ND	ND		2	WG1278777
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG1278777
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG1278777
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG1278777
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG1278777
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG1278777
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG1278777
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG1278777
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG1278777
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG1278777
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG1278777
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG1278777
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG1278777
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG1278777
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG1278777
Ethanol	64-17-5	46.10	1.26	2.38	13.8	26.0		2	WG1278777
Ethylbenzene	100-41-4	106	0.400	1.73	ND	ND		2	WG1278777
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG1278777
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG1278777
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.489	2.42		2	WG1278777
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG1278777
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG1278777
Heptane	142-82-5	100	0.400	1.64	ND	ND		2	WG1278777
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG1278777
n-Hexane	110-54-3	86.20	0.400	1.41	0.485	1.71		2	WG1278777
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG1278777
Methylene Chloride	75-09-2	84.90	0.400	1.39	2.76	9.58		2	WG1278777
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG1278777
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	ND	ND		2	WG1278777
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG1278777
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG1278777
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG1278777
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG1278777
2-Propanol	67-63-0	60.10	2.50	6.15	2.69	6.60		2	WG1278777
Propene	115-07-1	42.10	0.800	1.38	0.852	1.47		2	WG1278777
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG1278777
1,1,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG1278777
Tetrachloroethylene	127-18-4	166	0.400	2.72	ND	ND		2	WG1278777
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG1278777
Toluene	108-88-3	92.10	0.400	1.51	1.08	4.08		2	WG1278777
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG1278777

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1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc

SV02-042919

Collected date/time: 04/29/19 11:40

SAMPLE RESULTS - 03

L1095166

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	<u>Qualifier</u>	Dilution	<u>Batch</u>	1 Cp
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG1278777	2 Tc
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG1278777	
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG1278777	3 Ss
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	ND	ND		2	WG1278777	4 Cn
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG1278777	5 Sr
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG1278777	
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG1278777	6 Qc
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG1278777	7 GI
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG1278777	8 Al
m&p-Xylene	1330-20-7	106	0.800	3.47	ND	ND		2	WG1278777	9 Sc
o-Xylene	95-47-6	106	0.400	1.73	ND	ND		2	WG1278777	
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		103				WG1278777	



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	10.0	23.9		2	WG1278777
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG1278777
Benzene	71-43-2	78.10	0.400	1.28	ND	ND		2	WG1278777
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG1278777
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG1278777
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG1278777
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG1278777
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG1278777
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG1278777
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG1278777
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG1278777
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG1278777
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG1278777
Chloromethane	74-87-3	50.50	0.400	0.826	0.695	1.44		2	WG1278777
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG1278777
Cyclohexane	110-82-7	84.20	0.400	1.38	ND	ND		2	WG1278777
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG1278777
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG1278777
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG1278777
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG1278777
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG1278777
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG1278777
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG1278777
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG1278777
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG1278777
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG1278777
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG1278777
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG1278777
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG1278777
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG1278777
Ethanol	64-17-5	46.10	1.26	2.38	21.0	39.6		2	WG1278777
Ethylbenzene	100-41-4	106	0.400	1.73	ND	ND		2	WG1278777
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG1278777
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG1278777
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.455	2.25		2	WG1278777
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG1278777
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG1278777
Heptane	142-82-5	100	0.400	1.64	ND	ND		2	WG1278777
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG1278777
n-Hexane	110-54-3	86.20	0.400	1.41	ND	ND		2	WG1278777
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG1278777
Methylene Chloride	75-09-2	84.90	0.400	1.39	0.776	2.69		2	WG1278777
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG1278777
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	ND	ND		2	WG1278777
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG1278777
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG1278777
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG1278777
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG1278777
2-Propanol	67-63-0	60.10	2.50	6.15	ND	ND		2	WG1278777
Propene	115-07-1	42.10	0.800	1.38	ND	ND		2	WG1278777
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG1278777
1,1,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG1278777
Tetrachloroethylene	127-18-4	166	0.400	2.72	ND	ND		2	WG1278777
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG1278777
Toluene	108-88-3	92.10	0.400	1.51	0.540	2.03		2	WG1278777
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG1278777

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

SV03-042919

Collected date/time: 04/29/19 12:50

SAMPLE RESULTS - 04

L1095166

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	<u>Qualifier</u>	Dilution	<u>Batch</u>
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG1278777
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG1278777
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG1278777
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.937	4.60		2	WG1278777
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG1278777
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG1278777
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG1278777
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG1278777
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG1278777
m&p-Xylene	1330-20-7	106	0.800	3.47	1.01	4.36		2	WG1278777
o-Xylene	95-47-6	106	0.400	1.73	0.438	1.90		2	WG1278777
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		117				WG1278777

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

L1095166-01,02,03,04

Method Blank (MB)

(MB) R3410225-3 05/10/19 11:24

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	
Acetone	U		0.0569	1.25	¹ Cp
Allyl Chloride	U		0.0546	0.200	² Tc
Benzene	U		0.0460	0.200	³ Ss
Benzyl Chloride	U		0.0598	0.200	⁴ Cn
Bromodichloromethane	U		0.0436	0.200	⁵ Sr
Bromoform	U		0.0786	0.600	⁶ Qc
Bromomethane	U		0.0609	0.200	⁷ Gl
1,3-Butadiene	U		0.0563	2.00	⁸ Al
Carbon disulfide	U		0.0544	0.200	⁹ Sc
Carbon tetrachloride	U		0.0585	0.200	
Chlorobenzene	U		0.0601	0.200	
Chloroethane	U		0.0489	0.200	
Chloroform	U		0.0574	0.200	
Chloromethane	U		0.0544	0.200	
2-Chlorotoluene	U		0.0605	0.200	
Cyclohexane	U		0.0534	0.200	
Dibromochloromethane	U		0.0494	0.200	
1,2-Dibromoethane	U		0.0185	0.200	
1,2-Dichlorobenzene	U		0.0603	0.200	
1,3-Dichlorobenzene	U		0.0597	0.200	
1,4-Dichlorobenzene	U		0.0557	0.200	
1,2-Dichloroethane	U		0.0616	0.200	
1,1-Dichloroethane	U		0.0514	0.200	
1,1-Dichloroethene	U		0.0490	0.200	
cis-1,2-Dichloroethene	U		0.0389	0.200	
trans-1,2-Dichloroethene	U		0.0464	0.200	
1,2-Dichloropropane	U		0.0599	0.200	
cis-1,3-Dichloropropene	U		0.0588	0.200	
trans-1,3-Dichloropropene	U		0.0435	0.200	
1,4-Dioxane	U		0.0554	0.200	
Ethylbenzene	U		0.0506	0.200	
4-Ethyltoluene	U		0.0666	0.200	
Trichlorofluoromethane	U		0.0673	0.200	
Dichlorodifluoromethane	U		0.0601	0.200	
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.200	
1,2-Dichlorotetrafluoroethane	U		0.0458	0.200	
Heptane	U		0.0626	0.200	
Hexachloro-1,3-butadiene	U		0.0656	0.630	
n-Hexane	U		0.0457	0.200	
Isopropylbenzene	U		0.0563	0.200	

ACCOUNT:

PES Environmental, Inc.- WA

PROJECT:

SDG:

DATE/TIME:

PAGE:

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05/13/19 17:37

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L1095166-01,02,03,04

Method Blank (MB)

(MB) R3410225-3 05/10/19 11:24

Analyte	MB Result ppbv	<u>MB Qualifier</u>	MB MDL ppbv	MB RDL ppbv	¹ Cp
Methylene Chloride	U		0.0465	0.200	² Tc
Methyl Butyl Ketone	U		0.0682	1.25	³ Ss
2-Butanone (MEK)	U		0.0493	1.25	⁴ Cn
4-Methyl-2-pentanone (MIBK)	U		0.0650	1.25	⁵ Sr
Methyl Methacrylate	U		0.0773	0.200	⁶ Qc
MTBE	U		0.0505	0.200	⁷ Gl
Naphthalene	U		0.154	0.630	⁸ Al
2-Propanol	U		0.0882	1.25	⁹ Sc
Propene	U		0.0932	0.400	
Styrene	U		0.0465	0.200	
1,1,2,2-Tetrachloroethane	U		0.0576	0.200	
Tetrachloroethylene	U		0.0497	0.200	
Tetrahydrofuran	U		0.0508	0.200	
Toluene	U		0.0499	0.200	
1,2,4-Trichlorobenzene	U		0.148	0.630	
1,1,1-Trichloroethane	U		0.0665	0.200	
1,1,2-Trichloroethane	U		0.0287	0.200	
Trichloroethylene	U		0.0545	0.200	
1,2,4-Trimethylbenzene	U		0.0483	0.200	
1,3,5-Trimethylbenzene	U		0.0631	0.200	
2,2,4-Trimethylpentane	U		0.0456	0.200	
Vinyl chloride	U		0.0457	0.200	
Vinyl Bromide	U		0.0727	0.200	
Vinyl acetate	U		0.0639	0.200	
m&p-Xylene	U		0.0946	0.400	
o-Xylene	U		0.0633	0.200	
Ethanol	U		0.0832	0.630	
(S) 1,4-Bromofluorobenzene	104		60.0-140		

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

(LCS) R3410225-1 05/10/19 09:52 • (LCSD) R3410225-2 05/10/19 10:38

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Ethanol	3.75	3.53	3.38	94.2	90.2	55.0-148			4.36	25
Propene	3.75	3.83	3.81	102	102	64.0-144			0.450	25
Dichlorodifluoromethane	3.75	3.86	3.83	103	102	64.0-139			0.686	25
1,2-Dichlorotetrafluoroethane	3.75	3.81	3.81	102	102	70.0-130			0.0152	25
Chloromethane	3.75	3.71	3.71	98.9	98.8	70.0-130			0.118	25



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

(LCS) R3410225-1 05/10/19 09:52 • (LCSD) R3410225-2 05/10/19 10:38

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Vinyl chloride	3.75	3.38	3.33	90.2	88.7	70.0-130			1.69	25
1,3-Butadiene	3.75	3.26	3.29	87.0	87.7	70.0-130			0.789	25
Bromomethane	3.75	3.17	3.15	84.5	84.0	70.0-130			0.563	25
Chloroethane	3.75	3.19	3.17	85.0	84.6	70.0-130			0.544	25
Trichlorofluoromethane	3.75	3.39	3.34	90.3	89.1	70.0-130			1.41	25
1,1,2-Trichlorotrifluoroethane	3.75	3.74	3.73	99.8	99.5	70.0-130			0.376	25
1,1-Dichloroethene	3.75	3.71	3.69	98.9	98.3	70.0-130			0.668	25
1,1-Dichloroethane	3.75	3.69	3.72	98.4	99.1	70.0-130			0.698	25
Acetone	3.75	3.47	3.47	92.6	92.6	70.0-130			0.0499	25
2-Propanol	3.75	3.58	3.60	95.5	96.0	70.0-139			0.496	25
Carbon disulfide	3.75	3.65	3.71	97.3	99.0	70.0-130			1.68	25
Methylene Chloride	3.75	3.41	3.46	91.0	92.3	70.0-130			1.42	25
MTBE	3.75	3.84	3.87	102	103	70.0-130			0.759	25
trans-1,2-Dichloroethene	3.75	3.73	3.76	99.4	100	70.0-130			0.787	25
n-Hexane	3.75	3.80	3.80	101	101	70.0-130			0.165	25
Vinyl acetate	3.75	3.85	3.84	103	102	70.0-130			0.402	25
Methyl Ethyl Ketone	3.75	3.75	3.77	100	101	70.0-130			0.584	25
cis-1,2-Dichloroethene	3.75	3.74	3.78	99.7	101	70.0-130			1.05	25
Chloroform	3.75	3.65	3.64	97.3	97.1	70.0-130			0.214	25
Cyclohexane	3.75	3.76	3.82	100	102	70.0-130			1.50	25
1,1,1-Trichloroethane	3.75	3.72	3.74	99.2	99.7	70.0-130			0.481	25
Carbon tetrachloride	3.75	3.74	3.75	99.7	100	70.0-130			0.419	25
Benzene	3.75	3.67	3.66	97.7	97.6	70.0-130			0.145	25
1,2-Dichloroethane	3.75	3.69	3.70	98.3	98.6	70.0-130			0.261	25
Heptane	3.75	3.78	3.79	101	101	70.0-130			0.328	25
Trichloroethylene	3.75	3.76	3.74	100	99.8	70.0-130			0.519	25
1,2-Dichloropropane	3.75	3.64	3.60	97.0	96.0	70.0-130			1.08	25
1,4-Dioxane	3.75	3.79	3.84	101	102	70.0-140			1.45	25
Bromodichloromethane	3.75	3.65	3.64	97.3	97.0	70.0-130			0.320	25
cis-1,3-Dichloropropene	3.75	3.78	3.79	101	101	70.0-130			0.309	25
4-Methyl-2-pentanone (MIBK)	3.75	3.73	3.78	99.5	101	70.0-139			1.43	25
Toluene	3.75	3.81	3.82	102	102	70.0-130			0.334	25
trans-1,3-Dichloropropene	3.75	3.78	3.82	101	102	70.0-130			0.877	25
1,1,2-Trichloroethane	3.75	3.66	3.67	97.5	97.8	70.0-130			0.311	25
Tetrachloroethylene	3.75	3.95	4.00	105	107	70.0-130			1.23	25
Methyl Butyl Ketone	3.75	3.81	3.87	102	103	70.0-149			1.66	25
Dibromochloromethane	3.75	3.82	3.82	102	102	70.0-130			0.0196	25
1,2-Dibromoethane	3.75	3.81	3.80	102	101	70.0-130			0.302	25
Chlorobenzene	3.75	3.72	3.68	99.1	98.1	70.0-130			0.941	25
Ethylbenzene	3.75	3.80	3.83	101	102	70.0-130			0.850	25

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L1095166-01,02,03,04

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

(LCS) R3410225-1 05/10/19 09:52 • (LCSD) R3410225-2 05/10/19 10:38

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
m&p-Xylene	7.50	7.91	7.90	105	105	70.0-130			0.130	25
o-Xylene	3.75	4.06	4.04	108	108	70.0-130			0.552	25
Styrene	3.75	4.06	4.04	108	108	70.0-130			0.560	25
Bromoform	3.75	4.29	4.11	114	110	70.0-130			4.32	25
1,1,2,2-Tetrachloroethane	3.75	3.81	3.66	102	97.7	70.0-130			3.97	25
4-Ethyltoluene	3.75	4.14	4.02	111	107	70.0-130			3.01	25
1,3,5-Trimethylbenzene	3.75	4.02	4.03	107	108	70.0-130			0.422	25
1,2,4-Trimethylbenzene	3.75	4.09	3.97	109	106	70.0-130			2.96	25
1,3-Dichlorobenzene	3.75	4.10	3.95	109	105	70.0-130			3.55	25
1,4-Dichlorobenzene	3.75	4.09	3.98	109	106	70.0-130			2.76	25
Benzyl Chloride	3.75	4.07	3.88	108	103	70.0-152			4.68	25
1,2-Dichlorobenzene	3.75	4.03	3.88	108	103	70.0-130			3.96	25
1,2,4-Trichlorobenzene	3.75	4.45	4.24	119	113	70.0-160			4.81	25
Hexachloro-1,3-butadiene	3.75	4.37	4.24	116	113	70.0-151			2.85	25
Naphthalene	3.75	4.24	4.16	113	111	70.0-159			2.00	25
Allyl Chloride	3.75	3.87	3.83	103	102	70.0-130			1.04	25
2-Chlorotoluene	3.75	4.02	3.97	107	106	70.0-130			1.25	25
Methyl Methacrylate	3.75	3.67	3.69	97.8	98.4	70.0-130			0.663	25
Tetrahydrofuran	3.75	3.70	3.73	98.7	99.5	70.0-137			0.721	25
2,2,4-Trimethylpentane	3.75	3.84	3.86	102	103	70.0-130			0.592	25
Vinyl Bromide	3.75	3.37	3.30	89.9	87.9	70.0-130			2.17	25
Isopropylbenzene	3.75	4.12	4.06	110	108	70.0-130			1.39	25
(S) 1,4-Bromofluorobenzene				106	104	60.0-140				

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



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.	¹ Cp
ND	Not detected at the Reporting Limit (or MDL where applicable).	² Tc
RDL	Reported Detection Limit.	³ Ss
Rec.	Recovery.	⁴ Cn
RPD	Relative Percent Difference.	⁵ Sr
SDG	Sample Delivery Group.	⁶ Qc
(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.	⁷ GI
U	Not detected at the Reporting Limit (or MDL where applicable).	⁸ AI
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	⁹ SC
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.	
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

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



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- * 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.

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Georgia ¹	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky ^{1,6}	90010
Kentucky ²	16
Louisiana	AI30792
Louisiana ¹	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LA000356
South Carolina	84004
South Dakota	n/a
Tennessee ^{1,4}	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

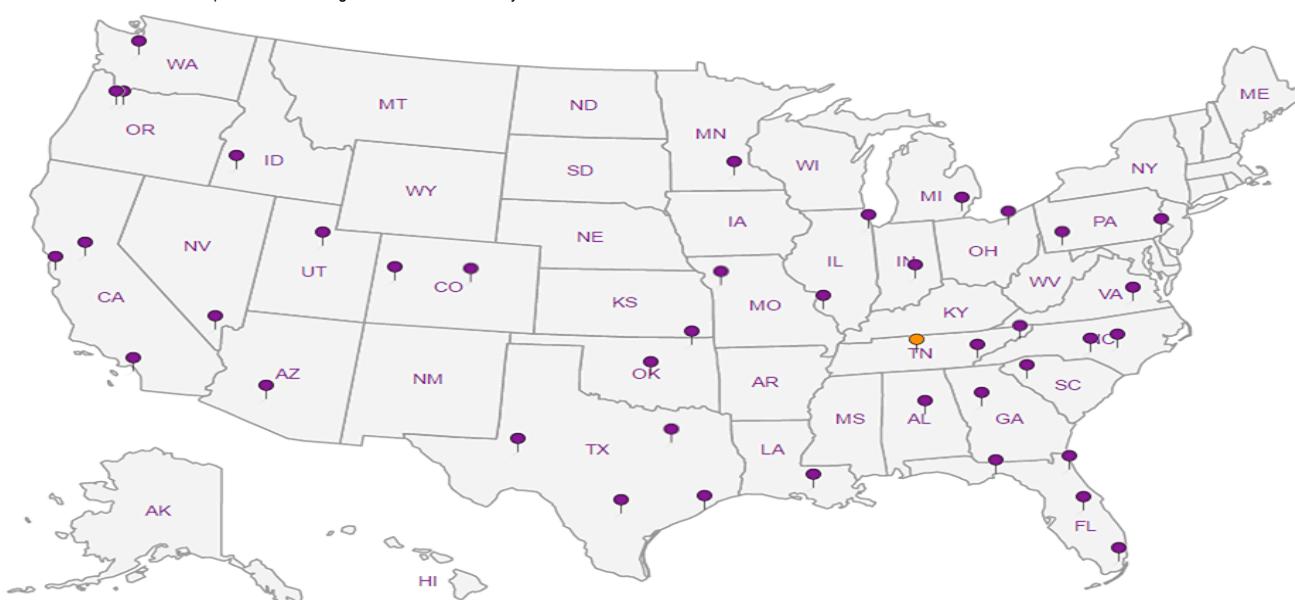
A2LA – ISO 17025	1461.01
A2LA – ISO 17025 ⁵	1461.02
Canada	1461.01
EPA-Crypto	TN00003

AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

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.



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



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



L# L1095166

Table #

Acctnum: PESENVSWA

Template: T148412

Prelogin: P701387

TSR: 110 - Brian Ford

PB: BF 4/3/19

Shipped Via: FedEx Ground

Remarks | Sample # (lab only)

PES Environmental, Inc.- WA		Billing Information:		Pres Chk	Analysis / Container / Preservative								
		Attn: Accounts Payable 1215 Fourth Ave., Ste. 1350 Seattle, WA 98161											
1215 Fourth Ave., Suite 1350 Seattle, WA 98161		Report to: Brian O'Neal/Bill Haldeman		Email To: boneal@pesenv.com; bhaldeman@pesenv.com;									
Project Description: American Linen		City/State Collected: Seattle, WA		Lab Project # PESENVSWA-ALP									
Phone: 206-529-3980	Client Project # T148412	Site/Facility ID #		P.O. #									
Fax: 206-529-3985													
Collected by (print): <i>C. DeBoer</i>	Collected by (signature): <i>Chris DeBoer</i>	Rush? (Lab MUST Be Notified)		Quote #									
Immediately Packed on Ice N <input checked="" type="checkbox"/> Y <input type="checkbox"/>		<input type="checkbox"/> Same Day <input type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day		Date Results Needed		No. of Cntrs							
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time								
SV01-042919	Crab	Air	~12	4/29/19	1025	TO-15 Summary							
SV01-042919-D		Air	~13		1030								
SV02-042919		Air	~13		1140								
SV03-042919		Air	~13		1250								
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other _____	Remarks:				pH _____ Temp _____								
					Flow _____ Other _____								
Samples returned via: UPS FedEx Courier _____		Tracking # 479188362250											

Relinquished by : (Signature) <i>Chris DeBoer</i>		Date: 4/29/19	Time: 1000	Received by: (Signature)	Trip Blank Received: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> HCL / MeOH TBR							
Relinquished by : (Signature)		Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: Amb 4	If preservation required by Login: Date/Time						
Relinquished by : (Signature)		Date:	Time:	Received for lab by: (Signature) <i>Chris DeBoer</i>	Date: 5/3/19 Time: 8:45	Hold: Condition: NCF / OK						

Sample Receipt Checklist	
COC Seal Present/Intact: <input checked="" type="checkbox"/> NP	Y <input type="checkbox"/> N
COC Signed/Accurate: <input checked="" type="checkbox"/>	Y <input type="checkbox"/> N
Bottles arrive intact: <input checked="" type="checkbox"/>	Y <input type="checkbox"/> N
Correct bottles used: <input checked="" type="checkbox"/>	Y <input type="checkbox"/> N
Sufficient volume sent: <input checked="" type="checkbox"/>	Y <input type="checkbox"/> N
If Applicable	
VOA Zero Headspace: <input checked="" type="checkbox"/>	Y <input type="checkbox"/> N
Preservation Correct/Checked: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

ANALYTICAL REPORT

May 13, 2019

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

PES Environmental, Inc.- WA

Sample Delivery Group: L1095349
Samples Received: 05/04/2019
Project Number: 1413.001.05.601
Description: American Linen
Site: AMERICAN LINEN
Report To: Brian O'Neal/Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

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



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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW120-050319 L1095349-01 GW

Collected by
K. Zygas
05/03/19 09:00
Received date/time
05/04/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1278682	1	05/10/19 16:24	05/10/19 16:24	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1276067	1	05/04/19 16:56	05/04/19 16:56	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1276616	1	05/06/19 17:49	05/06/19 17:49	AKA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1275860	5	05/06/19 15:23	05/07/19 22:02	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1277188	1	05/07/19 17:48	05/07/19 17:48	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1277421	1	05/09/19 13:42	05/09/19 13:42	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1277852	1	05/08/19 16:44	05/08/19 16:44	ADM	Mt. Juliet, TN

MW911-050319 L1095349-02 GW

Collected by
K. Zygas
05/03/19 10:10
Received date/time
05/04/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1278682	1	05/10/19 16:31	05/10/19 16:31	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1276067	1	05/04/19 17:11	05/04/19 17:11	ST	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1276616	1	05/06/19 18:04	05/06/19 18:04	AKA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1275860	1	05/06/19 15:23	05/07/19 14:18	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1275860	2	05/06/19 15:23	05/07/19 21:48	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1277738	1	05/08/19 15:33	05/08/19 15:33	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1277421	1	05/09/19 13:45	05/09/19 13:45	DAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1277852	1	05/08/19 17:03	05/08/19 17:03	ADM	Mt. Juliet, TN

TRIP BLANK-050319 L1095349-03 GW

Collected by
K. Zygas
05/03/19 00:00
Received date/time
05/04/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1277738	1	05/08/19 14:45	05/08/19 14:45	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1277852	1	05/08/19 14:27	05/08/19 14:27	ADM	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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 GI
- ⁸ AI
- ⁹ SC



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	217000		2710	20000	1	05/10/2019 16:24	WG1278682

Sample Narrative:

L1095349-01 WG1278682: Endpoint pH 4.5

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	20500		51.9	1000	1	05/04/2019 16:56	WG1276067
Nitrate	2010		22.7	100	1	05/04/2019 16:56	WG1276067
Sulfate	66200		77.4	5000	1	05/04/2019 16:56	WG1276067

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	1660	<u>B</u>	102	1000	1	05/06/2019 17:49	WG1276616

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	2310		75.0	500	5	05/07/2019 22:02	WG1275860
Manganese	384		1.25	25.0	5	05/07/2019 22:02	WG1275860

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	111	<u>B</u>	31.6	100	1	05/07/2019 17:48	WG1277188
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	85.3			78.0-120		05/07/2019 17:48	WG1277188

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	157		0.287	0.678	1	05/09/2019 13:42	WG1277421
Ethane	U		0.296	1.29	1	05/09/2019 13:42	WG1277421
Ethene	U		0.422	1.27	1	05/09/2019 13:42	WG1277421

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U		1.05	25.0	1	05/08/2019 16:44	WG1277852
Acrylonitrile	U		0.873	5.00	1	05/08/2019 16:44	WG1277852
Benzene	U		0.0896	0.500	1	05/08/2019 16:44	WG1277852
Bromobenzene	U		0.133	0.500	1	05/08/2019 16:44	WG1277852
Bromodichloromethane	U		0.0800	0.500	1	05/08/2019 16:44	WG1277852
Bromochloromethane	U		0.145	0.500	1	05/08/2019 16:44	WG1277852
Bromoform	U		0.186	0.500	1	05/08/2019 16:44	WG1277852
Bromomethane	U		0.157	2.50	1	05/08/2019 16:44	WG1277852
n-Butylbenzene	U		0.143	0.500	1	05/08/2019 16:44	WG1277852
sec-Butylbenzene	U		0.134	0.500	1	05/08/2019 16:44	WG1277852
tert-Butylbenzene	U		0.183	0.500	1	05/08/2019 16:44	WG1277852
Carbon disulfide	U		0.101	0.500	1	05/08/2019 16:44	WG1277852
Carbon tetrachloride	U		0.159	0.500	1	05/08/2019 16:44	WG1277852



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	05/08/2019 16:44	WG1277852
Chlorodibromomethane	U		0.128	0.500	1	05/08/2019 16:44	WG1277852
Chloroethane	U		0.141	2.50	1	05/08/2019 16:44	WG1277852
Chloroform	U		0.0860	0.500	1	05/08/2019 16:44	WG1277852
Chloromethane	U		0.153	1.25	1	05/08/2019 16:44	WG1277852
2-Chlorotoluene	U		0.111	0.500	1	05/08/2019 16:44	WG1277852
4-Chlorotoluene	U		0.0972	0.500	1	05/08/2019 16:44	WG1277852
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/08/2019 16:44	WG1277852
1,2-Dibromoethane	U		0.193	0.500	1	05/08/2019 16:44	WG1277852
Dibromomethane	U		0.117	0.500	1	05/08/2019 16:44	WG1277852
1,2-Dichlorobenzene	U		0.101	0.500	1	05/08/2019 16:44	WG1277852
1,3-Dichlorobenzene	U		0.130	0.500	1	05/08/2019 16:44	WG1277852
1,4-Dichlorobenzene	U		0.121	0.500	1	05/08/2019 16:44	WG1277852
Dichlorodifluoromethane	U		0.127	2.50	1	05/08/2019 16:44	WG1277852
1,1-Dichloroethane	1.70		0.114	0.500	1	05/08/2019 16:44	WG1277852
1,2-Dichloroethane	U		0.108	0.500	1	05/08/2019 16:44	WG1277852
1,1-Dichloroethene	0.812		0.188	0.500	1	05/08/2019 16:44	WG1277852
cis-1,2-Dichloroethene	87.2		0.0933	0.500	1	05/08/2019 16:44	WG1277852
trans-1,2-Dichloroethene	0.258	J	0.152	0.500	1	05/08/2019 16:44	WG1277852
1,2-Dichloropropane	U		0.190	0.500	1	05/08/2019 16:44	WG1277852
1,1-Dichloropropene	U		0.128	0.500	1	05/08/2019 16:44	WG1277852
1,3-Dichloropropane	U		0.147	1.00	1	05/08/2019 16:44	WG1277852
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/08/2019 16:44	WG1277852
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/08/2019 16:44	WG1277852
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/08/2019 16:44	WG1277852
2,2-Dichloropropane	U		0.0929	0.500	1	05/08/2019 16:44	WG1277852
Di-isopropyl ether	U		0.0924	0.500	1	05/08/2019 16:44	WG1277852
Ethylbenzene	U		0.158	0.500	1	05/08/2019 16:44	WG1277852
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/08/2019 16:44	WG1277852
2-Hexanone	U		0.757	5.00	1	05/08/2019 16:44	WG1277852
n-Hexane	U		0.305	5.00	1	05/08/2019 16:44	WG1277852
Iodomethane	U		0.377	10.0	1	05/08/2019 16:44	WG1277852
Isopropylbenzene	U		0.126	0.500	1	05/08/2019 16:44	WG1277852
p-Isopropyltoluene	U		0.138	0.500	1	05/08/2019 16:44	WG1277852
2-Butanone (MEK)	U		1.28	5.00	1	05/08/2019 16:44	WG1277852
Methylene Chloride	U		1.07	2.50	1	05/08/2019 16:44	WG1277852
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/08/2019 16:44	WG1277852
Methyl tert-butyl ether	U		0.102	0.500	1	05/08/2019 16:44	WG1277852
Naphthalene	U		0.174	2.50	1	05/08/2019 16:44	WG1277852
n-Propylbenzene	U		0.162	0.500	1	05/08/2019 16:44	WG1277852
Styrene	U		0.117	0.500	1	05/08/2019 16:44	WG1277852
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/08/2019 16:44	WG1277852
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/08/2019 16:44	WG1277852
1,1,2-Trichlorotrifluoroethane	0.477	J	0.164	0.500	1	05/08/2019 16:44	WG1277852
Tetrachloroethene	155		0.199	0.500	1	05/08/2019 16:44	WG1277852
Toluene	U		0.412	0.500	1	05/08/2019 16:44	WG1277852
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/08/2019 16:44	WG1277852
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/08/2019 16:44	WG1277852
1,1,1-Trichloroethane	0.261	J	0.0940	0.500	1	05/08/2019 16:44	WG1277852
1,1,2-Trichloroethane	U		0.186	0.500	1	05/08/2019 16:44	WG1277852
Trichloroethene	46.9		0.153	0.500	1	05/08/2019 16:44	WG1277852
Trichlorofluoromethane	U		0.130	2.50	1	05/08/2019 16:44	WG1277852
1,2,3-Trichloropropane	U		0.247	2.50	1	05/08/2019 16:44	WG1277852
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/08/2019 16:44	WG1277852
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/08/2019 16:44	WG1277852
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/08/2019 16:44	WG1277852

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW120-050319

Collected date/time: 05/03/19 09:00

SAMPLE RESULTS - 01

L1095349

ONE LAB. NATIONWIDE.



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
Vinyl acetate	U		0.645	5.00	1	05/08/2019 16:44	WG1277852	¹ Cp
Vinyl chloride	1.28		0.118	0.500	1	05/08/2019 16:44	WG1277852	² Tc
Xylenes, Total	U		0.316	1.50	1	05/08/2019 16:44	WG1277852	³ Ss
(S) Toluene-d8	92.8			80.0-120		05/08/2019 16:44	WG1277852	
(S) 4-Bromofluorobenzene	93.5			77.0-126		05/08/2019 16:44	WG1277852	
(S) 1,2-Dichloroethane-d4	103			70.0-130		05/08/2019 16:44	WG1277852	



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	217000		2710	20000	1	05/10/2019 16:31	WG1278682

Sample Narrative:

L1095349-02 WG1278682: Endpoint pH 4.5

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	20300		51.9	1000	1	05/04/2019 17:11	WG1276067
Nitrate	1960		22.7	100	1	05/04/2019 17:11	WG1276067
Sulfate	65900		77.4	5000	1	05/04/2019 17:11	WG1276067

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	1580	<u>B</u>	102	1000	1	05/06/2019 18:04	WG1276616

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	1120	<u>O1</u>	15.0	100	1	05/07/2019 14:18	WG1275860
Manganese	346		0.500	10.0	2	05/07/2019 21:48	WG1275860
Manganese	321	<u>O1</u>	0.250	5.00	1	05/07/2019 14:18	WG1275860

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	138	<u>B</u>	31.6	100	1	05/08/2019 15:33	WG1277738
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	85.2			78.0-120		05/08/2019 15:33	WG1277738

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	115		0.287	0.678	1	05/09/2019 13:45	WG1277421
Ethane	U		0.296	1.29	1	05/09/2019 13:45	WG1277421
Ethene	U		0.422	1.27	1	05/09/2019 13:45	WG1277421

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U		1.05	25.0	1	05/08/2019 17:03	WG1277852
Acrylonitrile	U		0.873	5.00	1	05/08/2019 17:03	WG1277852
Benzene	U		0.0896	0.500	1	05/08/2019 17:03	WG1277852
Bromobenzene	U		0.133	0.500	1	05/08/2019 17:03	WG1277852
Bromodichloromethane	U		0.0800	0.500	1	05/08/2019 17:03	WG1277852
Bromoform	U		0.145	0.500	1	05/08/2019 17:03	WG1277852
Bromomethane	U		0.157	2.50	1	05/08/2019 17:03	WG1277852
n-Butylbenzene	U		0.143	0.500	1	05/08/2019 17:03	WG1277852
sec-Butylbenzene	U		0.134	0.500	1	05/08/2019 17:03	WG1277852
tert-Butylbenzene	U		0.183	0.500	1	05/08/2019 17:03	WG1277852
Carbon disulfide	U		0.101	0.500	1	05/08/2019 17:03	WG1277852



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Carbon tetrachloride	U		0.159	0.500	1	05/08/2019 17:03	WG1277852	¹ Cp
Chlorobenzene	U		0.140	0.500	1	05/08/2019 17:03	WG1277852	² Tc
Chlorodibromomethane	U		0.128	0.500	1	05/08/2019 17:03	WG1277852	³ Ss
Chloroethane	U		0.141	2.50	1	05/08/2019 17:03	WG1277852	⁴ Cn
Chloroform	0.142	J	0.0860	0.500	1	05/08/2019 17:03	WG1277852	⁵ Sr
Chloromethane	U		0.153	1.25	1	05/08/2019 17:03	WG1277852	⁶ Qc
2-Chlorotoluene	U		0.111	0.500	1	05/08/2019 17:03	WG1277852	⁷ Gl
4-Chlorotoluene	U		0.0972	0.500	1	05/08/2019 17:03	WG1277852	⁸ Al
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/08/2019 17:03	WG1277852	⁹ Sc
1,2-Dibromoethane	U		0.193	0.500	1	05/08/2019 17:03	WG1277852	
Dibromomethane	U		0.117	0.500	1	05/08/2019 17:03	WG1277852	
1,2-Dichlorobenzene	U		0.101	0.500	1	05/08/2019 17:03	WG1277852	
1,3-Dichlorobenzene	U		0.130	0.500	1	05/08/2019 17:03	WG1277852	
1,4-Dichlorobenzene	U		0.121	0.500	1	05/08/2019 17:03	WG1277852	
Dichlorodifluoromethane	U		0.127	2.50	1	05/08/2019 17:03	WG1277852	
1,1-Dichloroethane	1.76		0.114	0.500	1	05/08/2019 17:03	WG1277852	
1,2-Dichloroethane	U		0.108	0.500	1	05/08/2019 17:03	WG1277852	
1,1-Dichloroethene	0.866		0.188	0.500	1	05/08/2019 17:03	WG1277852	
cis-1,2-Dichloroethene	89.0		0.0933	0.500	1	05/08/2019 17:03	WG1277852	
trans-1,2-Dichloroethene	0.227	J	0.152	0.500	1	05/08/2019 17:03	WG1277852	
1,2-Dichloropropane	U		0.190	0.500	1	05/08/2019 17:03	WG1277852	
1,1-Dichloropropene	U		0.128	0.500	1	05/08/2019 17:03	WG1277852	
1,3-Dichloropropane	U		0.147	1.00	1	05/08/2019 17:03	WG1277852	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/08/2019 17:03	WG1277852	
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/08/2019 17:03	WG1277852	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/08/2019 17:03	WG1277852	
2,2-Dichloropropane	U		0.0929	0.500	1	05/08/2019 17:03	WG1277852	
Di-isopropyl ether	U		0.0924	0.500	1	05/08/2019 17:03	WG1277852	
Ethylbenzene	U		0.158	0.500	1	05/08/2019 17:03	WG1277852	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/08/2019 17:03	WG1277852	
2-Hexanone	U		0.757	5.00	1	05/08/2019 17:03	WG1277852	
n-Hexane	U		0.305	5.00	1	05/08/2019 17:03	WG1277852	
Iodomethane	U		0.377	10.0	1	05/08/2019 17:03	WG1277852	
Isopropylbenzene	U		0.126	0.500	1	05/08/2019 17:03	WG1277852	
p-Isopropyltoluene	U		0.138	0.500	1	05/08/2019 17:03	WG1277852	
2-Butanone (MEK)	U		1.28	5.00	1	05/08/2019 17:03	WG1277852	
Methylene Chloride	U		1.07	2.50	1	05/08/2019 17:03	WG1277852	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/08/2019 17:03	WG1277852	
Methyl tert-butyl ether	U		0.102	0.500	1	05/08/2019 17:03	WG1277852	
Naphthalene	U		0.174	2.50	1	05/08/2019 17:03	WG1277852	
n-Propylbenzene	U		0.162	0.500	1	05/08/2019 17:03	WG1277852	
Styrene	U		0.117	0.500	1	05/08/2019 17:03	WG1277852	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/08/2019 17:03	WG1277852	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/08/2019 17:03	WG1277852	
1,1,2-Trichlorotrifluoroethane	0.412	J	0.164	0.500	1	05/08/2019 17:03	WG1277852	
Tetrachloroethene	182		0.199	0.500	1	05/08/2019 17:03	WG1277852	
Toluene	U		0.412	0.500	1	05/08/2019 17:03	WG1277852	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/08/2019 17:03	WG1277852	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/08/2019 17:03	WG1277852	
1,1,1-Trichloroethane	0.290	J	0.0940	0.500	1	05/08/2019 17:03	WG1277852	
1,1,2-Trichloroethane	U		0.186	0.500	1	05/08/2019 17:03	WG1277852	
Trichloroethene	51.1		0.153	0.500	1	05/08/2019 17:03	WG1277852	
Trichlorofluoromethane	U		0.130	2.50	1	05/08/2019 17:03	WG1277852	
1,2,3-Trichloropropane	U		0.247	2.50	1	05/08/2019 17:03	WG1277852	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/08/2019 17:03	WG1277852	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/08/2019 17:03	WG1277852	

MW911-050319

Collected date/time: 05/03/19 10:10

SAMPLE RESULTS - 02

L1095349

ONE LAB. NATIONWIDE.



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/08/2019 17:03	WG1277852	¹ Cp
Vinyl acetate	U		0.645	5.00	1	05/08/2019 17:03	WG1277852	² Tc
Vinyl chloride	1.30		0.118	0.500	1	05/08/2019 17:03	WG1277852	³ Ss
Xylenes, Total	U		0.316	1.50	1	05/08/2019 17:03	WG1277852	
(S) Toluene-d8	95.2			80.0-120		05/08/2019 17:03	WG1277852	⁴ Cn
(S) 4-Bromofluorobenzene	94.1			77.0-126		05/08/2019 17:03	WG1277852	
(S) 1,2-Dichloroethane-d4	102			70.0-130		05/08/2019 17:03	WG1277852	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	05/08/2019 14:45	WG1277738
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	85.2			78.0-120		05/08/2019 14:45	WG1277738

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
Acetone	U		1.05	25.0	1	05/08/2019 14:27	WG1277852
Acrylonitrile	U		0.873	5.00	1	05/08/2019 14:27	WG1277852
Benzene	U		0.0896	0.500	1	05/08/2019 14:27	WG1277852
Bromobenzene	U		0.133	0.500	1	05/08/2019 14:27	WG1277852
Bromodichloromethane	U		0.0800	0.500	1	05/08/2019 14:27	WG1277852
Bromoform	U		0.145	0.500	1	05/08/2019 14:27	WG1277852
Bromomethane	U		0.186	0.500	1	05/08/2019 14:27	WG1277852
n-Butylbenzene	U		0.143	0.500	1	05/08/2019 14:27	WG1277852
sec-Butylbenzene	U		0.134	0.500	1	05/08/2019 14:27	WG1277852
tert-Butylbenzene	U		0.183	0.500	1	05/08/2019 14:27	WG1277852
Carbon disulfide	U		0.101	0.500	1	05/08/2019 14:27	WG1277852
Carbon tetrachloride	U		0.159	0.500	1	05/08/2019 14:27	WG1277852
Chlorobenzene	U		0.140	0.500	1	05/08/2019 14:27	WG1277852
Chlorodibromomethane	U		0.128	0.500	1	05/08/2019 14:27	WG1277852
Chloroethane	U		0.141	2.50	1	05/08/2019 14:27	WG1277852
Chloroform	U		0.0860	0.500	1	05/08/2019 14:27	WG1277852
Chloromethane	U		0.153	1.25	1	05/08/2019 14:27	WG1277852
2-Chlorotoluene	U		0.111	0.500	1	05/08/2019 14:27	WG1277852
4-Chlorotoluene	U		0.0972	0.500	1	05/08/2019 14:27	WG1277852
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/08/2019 14:27	WG1277852
1,2-Dibromoethane	U		0.193	0.500	1	05/08/2019 14:27	WG1277852
Dibromomethane	U		0.117	0.500	1	05/08/2019 14:27	WG1277852
1,2-Dichlorobenzene	U		0.101	0.500	1	05/08/2019 14:27	WG1277852
1,3-Dichlorobenzene	U		0.130	0.500	1	05/08/2019 14:27	WG1277852
1,4-Dichlorobenzene	U		0.121	0.500	1	05/08/2019 14:27	WG1277852
Dichlorodifluoromethane	U		0.127	2.50	1	05/08/2019 14:27	WG1277852
1,1-Dichloroethane	U		0.114	0.500	1	05/08/2019 14:27	WG1277852
1,2-Dichloroethane	U		0.108	0.500	1	05/08/2019 14:27	WG1277852
1,1-Dichloroethene	U		0.188	0.500	1	05/08/2019 14:27	WG1277852
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/08/2019 14:27	WG1277852
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/08/2019 14:27	WG1277852
1,2-Dichloropropane	U		0.190	0.500	1	05/08/2019 14:27	WG1277852
1,1-Dichloropropene	U		0.128	0.500	1	05/08/2019 14:27	WG1277852
1,3-Dichloropropane	U		0.147	1.00	1	05/08/2019 14:27	WG1277852
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/08/2019 14:27	WG1277852
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/08/2019 14:27	WG1277852
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/08/2019 14:27	WG1277852
2,2-Dichloropropane	U		0.0929	0.500	1	05/08/2019 14:27	WG1277852
Di-isopropyl ether	U		0.0924	0.500	1	05/08/2019 14:27	WG1277852
Ethylbenzene	U		0.158	0.500	1	05/08/2019 14:27	WG1277852
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/08/2019 14:27	WG1277852
2-Hexanone	U		0.757	5.00	1	05/08/2019 14:27	WG1277852
n-Hexane	U		0.305	5.00	1	05/08/2019 14:27	WG1277852
Iodomethane	U		0.377	10.0	1	05/08/2019 14:27	WG1277852
Isopropylbenzene	U		0.126	0.500	1	05/08/2019 14:27	WG1277852
p-Isopropyltoluene	U		0.138	0.500	1	05/08/2019 14:27	WG1277852
2-Butanone (MEK)	U		1.28	5.00	1	05/08/2019 14:27	WG1277852



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	05/08/2019 14:27	WG1277852	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/08/2019 14:27	WG1277852	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	05/08/2019 14:27	WG1277852	³ Ss
Naphthalene	U		0.174	2.50	1	05/08/2019 14:27	WG1277852	
n-Propylbenzene	U		0.162	0.500	1	05/08/2019 14:27	WG1277852	
Styrene	U		0.117	0.500	1	05/08/2019 14:27	WG1277852	⁴ Cn
1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/08/2019 14:27	WG1277852	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/08/2019 14:27	WG1277852	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/08/2019 14:27	WG1277852	
Tetrachloroethene	U		0.199	0.500	1	05/08/2019 14:27	WG1277852	
Toluene	U		0.412	0.500	1	05/08/2019 14:27	WG1277852	⁵ Sr
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/08/2019 14:27	WG1277852	⁶ Qc
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/08/2019 14:27	WG1277852	⁷ Gl
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/08/2019 14:27	WG1277852	
1,1,2-Trichloroethane	U		0.186	0.500	1	05/08/2019 14:27	WG1277852	
Trichloroethene	U		0.153	0.500	1	05/08/2019 14:27	WG1277852	
Trichlorofluoromethane	U		0.130	2.50	1	05/08/2019 14:27	WG1277852	
1,2,3-Trichloropropane	U		0.247	2.50	1	05/08/2019 14:27	WG1277852	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/08/2019 14:27	WG1277852	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/08/2019 14:27	WG1277852	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/08/2019 14:27	WG1277852	
Vinyl acetate	U		0.645	5.00	1	05/08/2019 14:27	WG1277852	
Vinyl chloride	U		0.118	0.500	1	05/08/2019 14:27	WG1277852	
Xylenes, Total	U		0.316	1.50	1	05/08/2019 14:27	WG1277852	
(S) Toluene-d8	94.0			80.0-120		05/08/2019 14:27	WG1277852	
(S) 4-Bromofluorobenzene	94.3			77.0-126		05/08/2019 14:27	WG1277852	
(S) 1,2-Dichloroethane-d4	105			70.0-130		05/08/2019 14:27	WG1277852	⁸ Al
								⁹ Sc

L1095349-01,02

Method Blank (MB)

(MB) R3410255-1 05/10/19 16:17

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Alkalinity	3040	J	2710	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1095917-14 Original Sample (OS) • Duplicate (DUP)

(OS) L1095917-14 05/10/19 19:01 • (DUP) R3410255-4 05/10/19 19:07

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Alkalinity	507000	507000	1	0.0225		20

Sample Narrative:

OS: Endpoint pH 4.5 HEADSPACE

DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3410255-3 05/10/19 17:28

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Alkalinity	100000	103000	103	85.0-115	

Sample Narrative:

LCS: Endpoint pH 4.5



Method Blank (MB)

(MB) R3408280-1 05/04/19 09:11

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1094872-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1094872-01 05/04/19 12:58 • (DUP) R3408280-3 05/04/19 13:13

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Chloride	5320	5320	1	0.0639		15
Nitrate	1970	1970	1	0.350		15
Sulfate	ND	3770	1	0.000		15

⁹Sc

L1095349-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1095349-02 05/04/19 17:11 • (DUP) R3408280-6 05/04/19 17:26

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Chloride	20300	20300	1	0.277		15
Nitrate	1960	1990	1	1.45		15
Sulfate	65900	66000	1	0.225		15

Laboratory Control Sample (LCS)

(LCS) R3408280-2 05/04/19 09:26

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Chloride	40000	40400	101	80.0-120	
Nitrate	8000	8330	104	80.0-120	
Sulfate	40000	41100	103	80.0-120	



L1095349-01,02

L1094872-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1094872-01 05/04/19 12:58 • (MS) R3408280-4 05/04/19 13:28 • (MSD) R3408280-5 05/04/19 13:43

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
Chloride	50000	5320	55400	55400	100	100	1	80.0-120			0.141	15
Nitrate	5000	1970	6920	6950	99.1	99.7	1	80.0-120			0.405	15
Sulfate	50000	ND	54300	54500	101	101	1	80.0-120			0.369	15

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1095349-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1095349-02 05/04/19 17:11 • (MS) R3408280-7 05/04/19 17:41

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	20300	69600	98.6	1	80.0-120	
Nitrate	5000	1960	6940	99.6	1	80.0-120	
Sulfate	50000	65900	114000	95.8	1	80.0-120	E



L1095349-01,02

Method Blank (MB)

(MB) R3408691-1 05/06/19 12:54

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	349	J	102	1000

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1095197-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1095197-03 05/06/19 14:58 • (DUP) R3408691-3 05/06/19 15:14

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
TOC (Total Organic Carbon)	ND	576	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3408691-2 05/06/19 13:33

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
TOC (Total Organic Carbon)	75000	78500	105	85.0-115	

⁷Gl⁸Al

L1095315-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1095315-01 05/06/19 16:48 • (MS) R3408691-4 05/06/19 17:07 • (MSD) R3408691-5 05/06/19 17:34

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
TOC (Total Organic Carbon)	50000	4770	77800	76800	146	144	1	80.0-120	J5	J5	1.36	20

⁸Al⁹Sc

QUALITY CONTROL SUMMARY

L1095349-01,02

Method Blank (MB)

(MB) R3409028-1 05/07/19 13:34

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Iron	U		15.0	100
Manganese	U		0.250	5.00

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3409028-2 05/07/19 13:38 • (LCSD) R3409028-3 05/07/19 13:43

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 %
Iron	500	461	479	92.2	95.9	80.0-120			3.86	20
Manganese	50.0	45.6	46.8	91.2	93.6	80.0-120			2.63	20

L1095349-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1095349-02 05/07/19 14:18 • (MS) R3409028-5 05/07/19 15:28 • (MSD) R3409028-6 05/07/19 15:33

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Iron	500	1120	1560	1600	87.3	95.2	1	75.0-125			2.50	20
Manganese	50.0	321	363	369	84.2	96.7	1	75.0-125			1.70	20

L1095349-01

Method Blank (MB)

(MB) R3409240-2 05/07/19 11:58

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	66.7	J	31.6	100
(S) a,a,a-Trifluorotoluene(FID)	84.5			78.0-120

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3409240-1 05/07/19 11:11

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Gasoline Range Organics-NWTPH	5500	4850	88.1	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)		89.4		78.0-120	

L1095349-02,03

Method Blank (MB)

(MB) R3409543-4 05/08/19 11:29

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	59.7	J	31.6	100
(S) a,a,a-Trifluorotoluene(FID)	85.1			78.0-120

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3409543-1 05/08/19 09:55 • (LCSD) R3409543-3 05/08/19 10:42

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 %
Gasoline Range Organics-NWTPH	5500	4960	4900	90.1	89.0	70.0-124			1.19	20
(S) a,a,a-Trifluorotoluene(FID)				89.7	89.6	78.0-120				

L1095349-01,02

Method Blank (MB)

(MB) R3409706-1 05/09/19 11:19

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al

L1094039-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1094039-01 05/09/19 11:34 • (DUP) R3409706-2 05/09/19 11:36

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Methane	221	79.2	1	94.5		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

⁹Sc

L1094407-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1094407-05 05/09/19 12:59 • (DUP) R3409706-3 05/09/19 13:02

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Methane	519	536	1	3.25		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

L1095146-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1095146-01 05/09/19 13:38 • (DUP) R3409706-4 05/09/19 13:48

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Methane	4330	4280	1	1.22		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20



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

(LCS) R3409706-5 05/09/19 13:51 • (LCSD) R3409706-6 05/09/19 13:57

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 %
Methane	67.8	78.0	73.3	115	108	85.0-115			6.21	20
Ethane	129	120	115	93.0	89.2	85.0-115			4.26	20
Ethene	127	119	114	93.9	89.9	85.0-115			4.37	20

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



Method Blank (MB)

(MB) R3409512-4 05/08/19 12:23

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	
Acetone	U		1.05	25.0	¹ Cp
Acrylonitrile	U		0.873	5.00	² Tc
Benzene	U		0.0896	0.500	³ Ss
Bromobenzene	U		0.133	0.500	⁴ Cn
Bromochloromethane	U		0.145	0.500	⁵ Sr
Bromodichloromethane	U		0.0800	0.500	⁶ Qc
Bromoform	U		0.186	0.500	⁷ Gl
Bromomethane	U		0.157	2.50	⁸ Al
n-Butylbenzene	U		0.143	0.500	⁹ Sc
Carbon disulfide	U		0.101	0.500	
sec-Butylbenzene	U		0.134	0.500	
Carbon tetrachloride	U		0.159	0.500	
tert-Butylbenzene	U		0.183	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	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	
2-Chlorotoluene	U		0.111	0.500	
1,2-Dibromoethane	U		0.193	0.500	
4-Chlorotoluene	U		0.0972	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	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	
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	
cis-1,3-Dichloropropene	U		0.0976	0.500	
1,3-Dichloropropane	U		0.147	1.00	
trans-1,3-Dichloropropene	U		0.222	0.500	
n-Hexane	U		0.305	5.00	
2,2-Dichloropropane	U		0.0929	0.500	



L1095349-01,02,03

Method Blank (MB)

(MB) R3409512-4 05/08/19 12:23

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	
Di-isopropyl ether	U		0.0924	0.500	¹ Cp
Ethylbenzene	U		0.158	0.500	² Tc
2-Hexanone	U		0.757	5.00	³ Ss
Hexachloro-1,3-butadiene	U		0.157	1.00	⁴ Cn
Iodomethane	U		0.377	10.0	⁵ Sr
2-Butanone (MEK)	U		1.28	5.00	⁶ Qc
Isopropylbenzene	U		0.126	0.500	⁷ Gl
p-Isopropyltoluene	U		0.138	0.500	⁸ Al
Methylene Chloride	U		1.07	2.50	⁹ Sc
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	
Styrene	U		0.117	0.500	
1,1,2-Tetrachloroethane	U		0.120	0.500	
n-Propylbenzene	U		0.162	0.500	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	
Tetrachloroethene	U		0.199	0.500	
Toluene	U		0.412	0.500	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	
1,1,1-Trichloroethane	U		0.0940	0.500	
1,2,3-Trichlorobenzene	U		0.164	0.500	
1,1,2-Trichloroethane	U		0.186	0.500	
1,2,4-Trichlorobenzene	U		0.355	0.500	
Trichloroethene	U		0.153	0.500	
Trichlorofluoromethane	U		0.130	2.50	
1,2,3-Trichloropropane	U		0.247	2.50	
1,2,3-Trimethylbenzene	U		0.0739	0.500	
1,2,4-Trimethylbenzene	U		0.123	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	
(S) Toluene-d8	95.5		80.0-120		
(S) 4-Bromofluorobenzene	91.1		77.0-126		
(S) 1,2-Dichloroethane-d4	101		70.0-130		



Laboratory Control Sample (LCS)

(LCS) R3409512-1 05/08/19 10:46

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Bromochloromethane	25.0	24.3	97.3	76.0-122	¹ Cp
Acetone	125	128	102	19.0-160	² Tc
Acrylonitrile	125	111	88.5	55.0-149	³ Ss
Benzene	25.0	22.5	89.8	70.0-123	⁴ Cn
Bromodichloromethane	25.0	22.8	91.3	75.0-120	⁵ Sr
Bromoform	25.0	23.0	92.2	68.0-132	⁶ Qc
Bromomethane	25.0	20.6	82.5	10.0-160	⁷ Gl
n-Hexane	25.0	23.1	92.6	57.0-133	⁸ Al
Carbon disulfide	25.0	19.3	77.3	61.0-128	⁹ Sc
Carbon tetrachloride	25.0	22.9	91.5	68.0-126	
Chlorobenzene	25.0	23.5	94.0	80.0-121	
Bromobenzene	25.0	22.8	91.4	73.0-121	
Chlorodibromomethane	25.0	23.7	94.7	77.0-125	
Chloroethane	25.0	23.9	95.7	47.0-150	
Chloroform	25.0	23.7	94.8	73.0-120	
Chloromethane	25.0	21.5	86.1	41.0-142	
n-Butylbenzene	25.0	22.9	91.6	73.0-125	
1,2-Dibromo-3-Chloropropane	25.0	18.3	73.4	58.0-134	
sec-Butylbenzene	25.0	22.7	90.8	75.0-125	
1,2-Dibromoethane	25.0	23.3	93.3	80.0-122	
tert-Butylbenzene	25.0	24.3	97.1	76.0-124	
Dibromomethane	25.0	23.7	94.8	80.0-120	
1,2-Dichlorobenzene	25.0	22.1	88.5	79.0-121	
1,3-Dichlorobenzene	25.0	22.4	89.7	79.0-120	
1,4-Dichlorobenzene	25.0	21.8	87.1	79.0-120	
trans-1,4-Dichloro-2-butene	25.0	21.2	84.6	33.0-144	
Dichlorodifluoromethane	25.0	22.7	90.7	51.0-149	
1,1-Dichloroethane	25.0	24.4	97.5	70.0-126	
1,2-Dichloroethane	25.0	23.1	92.5	70.0-128	
1,1-Dichloroethene	25.0	22.8	91.3	71.0-124	
2-Chlorotoluene	25.0	24.3	97.2	76.0-123	
4-Chlorotoluene	25.0	23.8	95.2	75.0-122	
cis-1,2-Dichloroethene	25.0	24.0	96.0	73.0-120	
trans-1,2-Dichloroethene	25.0	24.4	97.6	73.0-120	
1,2-Dichloropropane	25.0	25.1	101	77.0-125	
cis-1,3-Dichloropropene	25.0	23.4	93.7	80.0-123	
trans-1,3-Dichloropropene	25.0	22.7	90.8	78.0-124	
Di-isopropyl ether	25.0	23.0	91.8	58.0-138	
Ethylbenzene	25.0	23.5	93.9	79.0-123	
2-Hexanone	125	119	94.9	67.0-149	



Laboratory Control Sample (LCS)

(LCS) R3409512-1 05/08/19 10:46

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
1,1-Dichloropropene	25.0	22.7	90.7	74.0-126	¹ Cp
Iodomethane	125	119	95.0	33.0-147	² Tc
1,3-Dichloropropane	25.0	22.8	91.1	80.0-120	³ Ss
2-Butanone (MEK)	125	119	95.6	44.0-160	⁴ Cn
2,2-Dichloropropane	25.0	26.3	105	58.0-130	⁵ Sr
Methylene Chloride	25.0	24.7	98.9	67.0-120	⁶ Qc
4-Methyl-2-pentanone (MIBK)	125	113	90.1	68.0-142	⁷ Gl
Methyl tert-butyl ether	25.0	22.1	88.6	68.0-125	⁸ Al
Naphthalene	25.0	19.4	77.6	54.0-135	⁹ Sc
Hexachloro-1,3-butadiene	25.0	25.6	102	54.0-138	
Styrene	25.0	22.6	90.5	73.0-130	
1,1,1,2-Tetrachloroethane	25.0	23.6	94.5	75.0-125	
1,1,2,2-Tetrachloroethane	25.0	24.3	97.1	65.0-130	
Isopropylbenzene	25.0	22.4	89.7	76.0-127	
p-Isopropyltoluene	25.0	23.7	94.9	76.0-125	
Tetrachloroethene	25.0	24.4	97.6	72.0-132	
Toluene	25.0	21.4	85.5	79.0-120	
1,1,1-Trichloroethane	25.0	22.8	91.1	73.0-124	
1,1,2-Trichloroethane	25.0	23.7	94.7	80.0-120	
Trichloroethene	25.0	22.6	90.2	78.0-124	
Trichlorofluoromethane	25.0	23.3	93.3	59.0-147	
1,2,3-Trichloropropane	25.0	24.6	98.6	73.0-130	
n-Propylbenzene	25.0	24.1	96.3	77.0-124	
Vinyl acetate	125	138	110	11.0-160	
Vinyl chloride	25.0	24.3	97.2	67.0-131	
Xylenes, Total	75.0	70.0	93.3	79.0-123	
1,1,2-Trichlorotrifluoroethane	25.0	24.3	97.3	69.0-132	
1,2,3-Trichlorobenzene	25.0	23.5	93.9	50.0-138	
1,2,4-Trichlorobenzene	25.0	23.3	93.2	57.0-137	
1,2,3-Trimethylbenzene	25.0	21.1	84.3	77.0-120	
1,2,4-Trimethylbenzene	25.0	23.1	92.3	76.0-121	
1,3,5-Trimethylbenzene	25.0	23.2	92.6	76.0-122	
(S) Toluene-d8		95.6		80.0-120	
(S) 4-Bromofluorobenzene		96.6		77.0-126	
(S) 1,2-Dichloroethane-d4		101		70.0-130	



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.	¹ Cp
ND	Not detected at the Reporting Limit (or MDL where applicable).	² Tc
RDL	Reported Detection Limit.	³ Ss
Rec.	Recovery.	⁴ Cn
RPD	Relative Percent Difference.	⁵ Sr
SDG	Sample Delivery Group.	⁶ Qc
(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.	⁷ GI
U	Not detected at the Reporting Limit (or MDL where applicable).	⁸ AI
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	⁹ SC
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.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.



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- * 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
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia ¹	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky ^{1,6}	90010
Kentucky ²	16
Louisiana	AI30792
Louisiana ¹	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LA000356
South Carolina	84004
South Dakota	n/a
Tennessee ^{1,4}	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

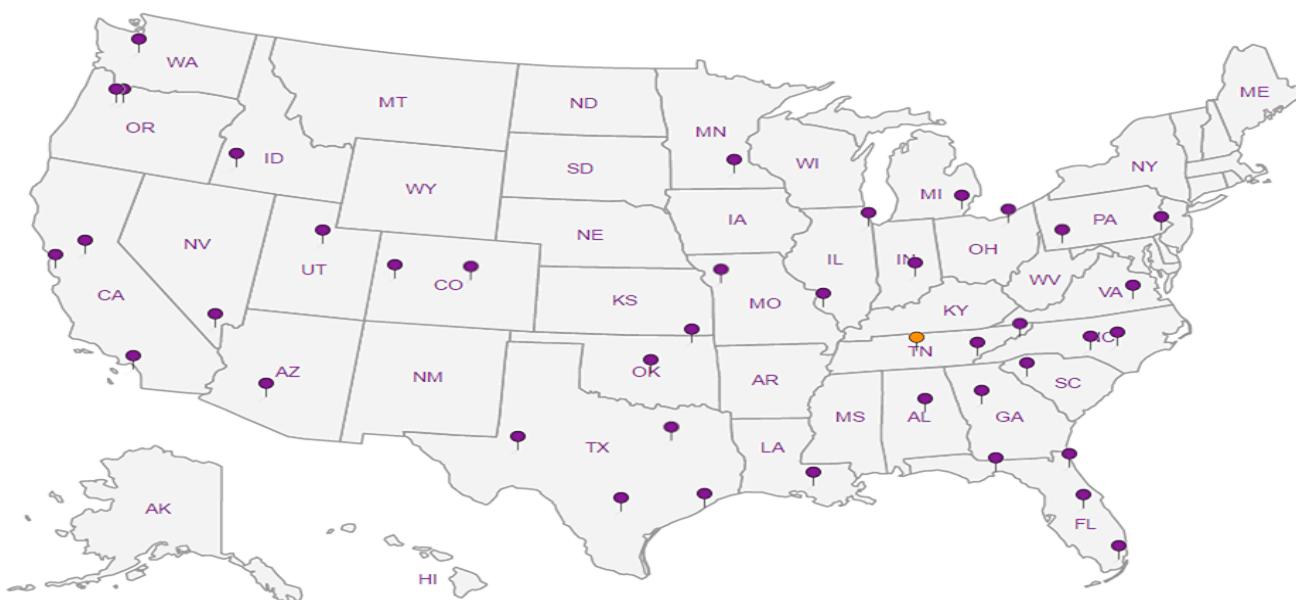
A2LA – ISO 17025	1461.01
A2LA – ISO 17025 ⁵	1461.02
Canada	1461.01
EPA-Crypto	TN00003

AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

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.



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

PES Environmental, Inc. -WA
1215 4th Avenue STE 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 4th Ave STE 1350
Seattle, WA 98161

Report to:
Brian O'Neal/Bill Haldeman

Project **American Linen**
Description:

Phone: **206-529-3980**
Fax: **206-529-3985**

Client Project #
1413.001.05.601

City/State **Seattle, WA**
Preserv: **PESEN**

Collected:
PESEN

Lab Project #
PESENVSWA-ALP

P.O. #

Quote #

Date Results Needed

Standard T.A.T.

No. of
Cntrs

Collected by (print):
K. Zysas

Site/Facility ID #
American Linen

Collected by (signature):
K. Zysas

Rush? (Lab MUST Be Notified)

Same Day Five Day
Next Day 5 Day (Rad Only)
Two Day 10 Day (Rad Only)
Three Day

Immediately
Packed on Ice N Y

P.O. #

Quote #

Date Results Needed

Standard T.A.T.

No. of
Cntrs

Sample ID

Comp/Grab

Matrix *

Depth

Date

Time

MW120-050319

Grab

GW

45

5/3/19

0900

12

MW911-050319

Grab

GW

45

5/3/19

1010

12

TRIP BLANK-050319

Grab

GW

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* Matrix:

SS - Soil AIR - Air F - Filter

GW - Groundwater B - Bioassay

WW - WasteWater

DW - Drinking Water

OT - Other

Remarks:

Tier 2 QA/QC

Samples returned via:

UPS FedEx Courier

Tracking # **4492 6220 4430**

pH _____ Temp _____

Flow _____ Other _____

Relinquished by : (Signature)

K. Zysas

Date: **5/3/19**

Time: **1130**

Received by: (Signature)

Relinquished by : (Signature)

Date: _____

Time: _____

Received by: (Signature)

Relinquished by : (Signature)

Date: _____

Time: _____

Received for lab by: (Signature)

Pres Chk

Analysis / Container / Preservative

L2

L2

Chain of Custody Page **1 of 1**

Pace Analytical®
National Center for Testing & Innovation

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



L# **11095349**
B146

Acctnum:

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Remarks Sample # (lab only)

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**

If preservation required by Login: Date/Time

Condition: **NCF / OK**

Temp: **45.8°F** °C Bottles Received: **5.2 + 1 = 5.3** 24
HCl MeOH TBR
5/4/19 0245

Hold:

MW120-050319

SAMPLE RESULTS - 01

ONE LAB. NATIONWIDE.

Collected date/time: 05/03/19 09:00



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	217000		2710	20000	1	05/10/2019 16:24	WG1278682

Sample Narrative:

L1095349-01 WG1278682: Endpoint pH 4.5

1 Cp

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	20500		51.9	1000	1	05/04/2019 16:56	WG1276067
Nitrate	2010		22.7	100	1	05/04/2019 16:56	WG1276067
Sulfate	66200		77.4	5000	1	05/04/2019 16:56	WG1276067

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	1660	B	102	1000	1	05/06/2019 17:49	WG1276616

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Iron	2310	J	75.0	500	5	05/07/2019 22:02	WG1275860
Manganese	384		1.25	25.0	5	05/07/2019 22:02	WG1275860

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Gasoline Range Organics-NWTPH	111	J+ B	31.6	100	1	05/07/2019 17:48	WG1277188
(S) a,a,a-Trifluorotoluene(FID)	85.3			78.0-120		05/07/2019 17:48	WG1277188

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	157	J	0.287	0.678	1	05/09/2019 13:42	WG1277421
Ethane	U		0.296	1.29	1	05/09/2019 13:42	WG1277421
Ethene	U		0.422	1.27	1	05/09/2019 13:42	WG1277421

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U		1.05	25.0	1	05/08/2019 16:44	WG1277852
Acrylonitrile	U		0.873	5.00	1	05/08/2019 16:44	WG1277852
Benzene	U		0.0896	0.500	1	05/08/2019 16:44	WG1277852
Bromobenzene	U		0.133	0.500	1	05/08/2019 16:44	WG1277852
Bromodichloromethane	U		0.0800	0.500	1	05/08/2019 16:44	WG1277852
Bromochloromethane	U		0.145	0.500	1	05/08/2019 16:44	WG1277852
Bromoform	U		0.186	0.500	1	05/08/2019 16:44	WG1277852
Bromomethane	U		0.157	2.50	1	05/08/2019 16:44	WG1277852
n-Butylbenzene	U		0.143	0.500	1	05/08/2019 16:44	WG1277852
sec-Butylbenzene	U		0.134	0.500	1	05/08/2019 16:44	WG1277852
tert-Butylbenzene	U		0.183	0.500	1	05/08/2019 16:44	WG1277852
Carbon disulfide	U		0.101	0.500	1	05/08/2019 16:44	WG1277852
Carbon tetrachloride	U		0.159	0.500	1	05/08/2019 16:44	WG1277852

JC 5/16/19



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Chlorobenzene	U		0.140	0.500	1	05/08/2019 16:44	WG1277852	¹ Cp
Chlorodibromomethane	U		0.128	0.500	1	05/08/2019 16:44	WG1277852	² Tc
Chloroethane	U		0.141	2.50	1	05/08/2019 16:44	WG1277852	³ Ss
Chloroform	U		0.0860	0.500	1	05/08/2019 16:44	WG1277852	⁴ Cn
Chloromethane	U		0.153	1.25	1	05/08/2019 16:44	WG1277852	⁵ Sr
2-Chlorotoluene	U		0.111	0.500	1	05/08/2019 16:44	WG1277852	⁶ Qc
4-Chlorotoluene	U		0.0972	0.500	1	05/08/2019 16:44	WG1277852	⁷ Gl
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/08/2019 16:44	WG1277852	⁸ Al
1,2-Dibromoethane	U		0.193	0.500	1	05/08/2019 16:44	WG1277852	⁹ Sc
Dibromomethane	U		0.117	0.500	1	05/08/2019 16:44	WG1277852	
1,2-Dichlorobenzene	U		0.101	0.500	1	05/08/2019 16:44	WG1277852	
1,3-Dichlorobenzene	U		0.130	0.500	1	05/08/2019 16:44	WG1277852	
1,4-Dichlorobenzene	U		0.121	0.500	1	05/08/2019 16:44	WG1277852	
Dichlorodifluoromethane	U		0.127	2.50	1	05/08/2019 16:44	WG1277852	
1,1-Dichloroethane	1.70		0.114	0.500	1	05/08/2019 16:44	WG1277852	
1,2-Dichloroethane	U		0.108	0.500	1	05/08/2019 16:44	WG1277852	
1,1-Dichloroethene	0.812		0.188	0.500	1	05/08/2019 16:44	WG1277852	
cis-1,2-Dichloroethene	87.2		0.0933	0.500	1	05/08/2019 16:44	WG1277852	
trans-1,2-Dichloroethene	0.258	J J	0.152	0.500	1	05/08/2019 16:44	WG1277852	
1,2-Dichloropropane	U		0.190	0.500	1	05/08/2019 16:44	WG1277852	
1,1-Dichloropropene	U		0.128	0.500	1	05/08/2019 16:44	WG1277852	
1,3-Dichloropropane	U		0.147	1.00	1	05/08/2019 16:44	WG1277852	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/08/2019 16:44	WG1277852	
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/08/2019 16:44	WG1277852	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/08/2019 16:44	WG1277852	
2,2-Dichloropropane	U		0.0929	0.500	1	05/08/2019 16:44	WG1277852	
Di-isopropyl ether	U		0.0924	0.500	1	05/08/2019 16:44	WG1277852	
Ethylbenzene	U		0.158	0.500	1	05/08/2019 16:44	WG1277852	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/08/2019 16:44	WG1277852	
2-Hexanone	U		0.757	5.00	1	05/08/2019 16:44	WG1277852	
n-Hexane	U		0.305	5.00	1	05/08/2019 16:44	WG1277852	
Iodomethane	U		0.377	10.0	1	05/08/2019 16:44	WG1277852	
Isopropylbenzene	U		0.126	0.500	1	05/08/2019 16:44	WG1277852	
p-Isopropyltoluene	U		0.138	0.500	1	05/08/2019 16:44	WG1277852	
2-Butanone (MEK)	U		1.28	5.00	1	05/08/2019 16:44	WG1277852	
Methylene Chloride	U		1.07	2.50	1	05/08/2019 16:44	WG1277852	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/08/2019 16:44	WG1277852	
Methyl tert-butyl ether	U		0.102	0.500	1	05/08/2019 16:44	WG1277852	
Naphthalene	U		0.174	2.50	1	05/08/2019 16:44	WG1277852	
n-Propylbenzene	U		0.162	0.500	1	05/08/2019 16:44	WG1277852	
Styrene	U		0.117	0.500	1	05/08/2019 16:44	WG1277852	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/08/2019 16:44	WG1277852	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/08/2019 16:44	WG1277852	
1,1,2-Trichlorotrifluoroethane	0.477	J J	0.164	0.500	1	05/08/2019 16:44	WG1277852	
Tetrachloroethene	155		0.199	0.500	1	05/08/2019 16:44	WG1277852	
Toluene	U		0.412	0.500	1	05/08/2019 16:44	WG1277852	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/08/2019 16:44	WG1277852	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/08/2019 16:44	WG1277852	
1,1,1-Trichloroethane	0.261	J J	0.0940	0.500	1	05/08/2019 16:44	WG1277852	JC 5/16/19
1,1,2-Trichloroethane	U		0.186	0.500	1	05/08/2019 16:44	WG1277852	
Trichloroethene	46.9		0.153	0.500	1	05/08/2019 16:44	WG1277852	
Trichlorofluoromethane	U		0.130	2.50	1	05/08/2019 16:44	WG1277852	
1,2,3-Trichloropropane	U		0.247	2.50	1	05/08/2019 16:44	WG1277852	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/08/2019 16:44	WG1277852	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/08/2019 16:44	WG1277852	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/08/2019 16:44	WG1277852	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Vinyl acetate	U		0.645	5.00	1	05/08/2019 16:44	WG1277852	¹ Cp
Vinyl chloride	1.28		0.118	0.500	1	05/08/2019 16:44	WG1277852	² Tc
Xylenes, Total	U		0.316	1.50	1	05/08/2019 16:44	WG1277852	³ Ss
(S) Toluene-d8	92.8			80.0-120		05/08/2019 16:44	WG1277852	
(S) 4-Bromofluorobenzene	93.5			77.0-126		05/08/2019 16:44	WG1277852	
(S) 1,2-Dichloroethane-d4	103			70.0-130		05/08/2019 16:44	WG1277852	

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

JC 5/16/19



Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Alkalinity	217000		2710	20000	1	05/10/2019 16:31	WG1278682

Sample Narrative:

L1095349-02 WG1278682: Endpoint pH 4.5

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	20300		51.9	1000	1	05/04/2019 17:11	WG1276067
Nitrate	1960		22.7	100	1	05/04/2019 17:11	WG1276067
Sulfate	65900		77.4	5000	1	05/04/2019 17:11	WG1276067

Wet Chemistry by Method 9060A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
TOC (Total Organic Carbon)	1580	B	102	1000	1	05/06/2019 18:04	WG1276616

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
Iron	1120	J	O1	15.0	100	1	05/07/2019 14:18	WG1275860
Manganese	346		0.500	10.0	2	05/07/2019 21:48	WG1275860	
Manganese	321	R	O1	0.250	5.00	1	05/07/2019 14:18	WG1275860

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>	
Gasoline Range Organics-NWTPH	138	J+	E	31.6	100	1	05/08/2019 15:33	WG1277738
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	85.2			78.0-120		05/08/2019 15:33	WG1277738	

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Methane	115	J	0.287	0.678	1	05/09/2019 13:45	WG1277421
Ethane	U		0.296	1.29	1	05/09/2019 13:45	WG1277421
Ethene	U		0.422	1.27	1	05/09/2019 13:45	WG1277421

JC 5/16/19

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

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U		1.05	25.0	1	05/08/2019 17:03	WG1277852
Acrylonitrile	U		0.873	5.00	1	05/08/2019 17:03	WG1277852
Benzene	U		0.0896	0.500	1	05/08/2019 17:03	WG1277852
Bromobenzene	U		0.133	0.500	1	05/08/2019 17:03	WG1277852
Bromodichloromethane	U		0.0800	0.500	1	05/08/2019 17:03	WG1277852
Bromoform	U		0.145	0.500	1	05/08/2019 17:03	WG1277852
Bromomethane	U		0.157	2.50	1	05/08/2019 17:03	WG1277852
n-Butylbenzene	U		0.143	0.500	1	05/08/2019 17:03	WG1277852
sec-Butylbenzene	U		0.134	0.500	1	05/08/2019 17:03	WG1277852
tert-Butylbenzene	U		0.183	0.500	1	05/08/2019 17:03	WG1277852
Carbon disulfide	U		0.101	0.500	1	05/08/2019 17:03	WG1277852



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Carbon tetrachloride	U		0.159	0.500	1	05/08/2019 17:03	WG1277852	¹ Cp
Chlorobenzene	U		0.140	0.500	1	05/08/2019 17:03	WG1277852	² Tc
Chlorodibromomethane	U		0.128	0.500	1	05/08/2019 17:03	WG1277852	³ Ss
Chloroethane	U		0.141	2.50	1	05/08/2019 17:03	WG1277852	⁴ Cn
Chloroform	0.142	J J	0.0860	0.500	1	05/08/2019 17:03	WG1277852	⁵ Sr
Chloromethane	U		0.153	1.25	1	05/08/2019 17:03	WG1277852	⁶ Qc
2-Chlorotoluene	U		0.111	0.500	1	05/08/2019 17:03	WG1277852	⁷ Gl
4-Chlorotoluene	U		0.0972	0.500	1	05/08/2019 17:03	WG1277852	⁸ Al
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/08/2019 17:03	WG1277852	⁹ Sc
1,2-Dibromoethane	U		0.193	0.500	1	05/08/2019 17:03	WG1277852	
Dibromomethane	U		0.117	0.500	1	05/08/2019 17:03	WG1277852	
1,2-Dichlorobenzene	U		0.101	0.500	1	05/08/2019 17:03	WG1277852	
1,3-Dichlorobenzene	U		0.130	0.500	1	05/08/2019 17:03	WG1277852	
1,4-Dichlorobenzene	U		0.121	0.500	1	05/08/2019 17:03	WG1277852	
Dichlorodifluoromethane	U		0.127	2.50	1	05/08/2019 17:03	WG1277852	
1,1-Dichloroethane	1.76		0.114	0.500	1	05/08/2019 17:03	WG1277852	
1,2-Dichloroethane	U		0.108	0.500	1	05/08/2019 17:03	WG1277852	
1,1-Dichloroethene	0.866		0.188	0.500	1	05/08/2019 17:03	WG1277852	
cis-1,2-Dichloroethene	89.0		0.0933	0.500	1	05/08/2019 17:03	WG1277852	
trans-1,2-Dichloroethene	0.227	J J	0.152	0.500	1	05/08/2019 17:03	WG1277852	
1,2-Dichloropropane	U		0.190	0.500	1	05/08/2019 17:03	WG1277852	
1,1-Dichloropropene	U		0.128	0.500	1	05/08/2019 17:03	WG1277852	
1,3-Dichloropropene	U		0.147	1.00	1	05/08/2019 17:03	WG1277852	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/08/2019 17:03	WG1277852	
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/08/2019 17:03	WG1277852	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/08/2019 17:03	WG1277852	
2,2-Dichloropropane	U		0.0929	0.500	1	05/08/2019 17:03	WG1277852	
Di-isopropyl ether	U		0.0924	0.500	1	05/08/2019 17:03	WG1277852	
Ethylbenzene	U		0.158	0.500	1	05/08/2019 17:03	WG1277852	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/08/2019 17:03	WG1277852	
2-Hexanone	U		0.757	5.00	1	05/08/2019 17:03	WG1277852	
n-Hexane	U		0.305	5.00	1	05/08/2019 17:03	WG1277852	
Iodomethane	U		0.377	10.0	1	05/08/2019 17:03	WG1277852	JC 5/16/19
Isopropylbenzene	U		0.126	0.500	1	05/08/2019 17:03	WG1277852	
p-Isopropyltoluene	U		0.138	0.500	1	05/08/2019 17:03	WG1277852	
2-Butanone (MEK)	U		1.28	5.00	1	05/08/2019 17:03	WG1277852	
Methylene Chloride	U		1.07	2.50	1	05/08/2019 17:03	WG1277852	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/08/2019 17:03	WG1277852	
Methyl tert-butyl ether	U		0.102	0.500	1	05/08/2019 17:03	WG1277852	
Naphthalene	U		0.174	2.50	1	05/08/2019 17:03	WG1277852	
n-Propylbenzene	U		0.162	0.500	1	05/08/2019 17:03	WG1277852	
Styrene	U		0.117	0.500	1	05/08/2019 17:03	WG1277852	
1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/08/2019 17:03	WG1277852	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/08/2019 17:03	WG1277852	
1,1,2-Trichlorotrifluoroethane	0.412	J J	0.164	0.500	1	05/08/2019 17:03	WG1277852	
Tetrachloroethene	182		0.199	0.500	1	05/08/2019 17:03	WG1277852	
Toluene	U		0.412	0.500	1	05/08/2019 17:03	WG1277852	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/08/2019 17:03	WG1277852	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/08/2019 17:03	WG1277852	
1,1,1-Trichloroethane	0.290	J J	0.0940	0.500	1	05/08/2019 17:03	WG1277852	
1,1,2-Trichloroethane	U		0.186	0.500	1	05/08/2019 17:03	WG1277852	
Trichloroethene	51.1		0.153	0.500	1	05/08/2019 17:03	WG1277852	
Trichlorofluoromethane	U		0.130	2.50	1	05/08/2019 17:03	WG1277852	
1,2,3-Trichloropropane	U		0.247	2.50	1	05/08/2019 17:03	WG1277852	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/08/2019 17:03	WG1277852	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/08/2019 17:03	WG1277852	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/08/2019 17:03	WG1277852	¹ Cp
Vinyl acetate	U		0.645	5.00	1	05/08/2019 17:03	WG1277852	² Tc
Vinyl chloride	1.30		0.118	0.500	1	05/08/2019 17:03	WG1277852	³ Ss
Xylenes, Total	U		0.316	1.50	1	05/08/2019 17:03	WG1277852	
(S) Toluene-d8	95.2			80.0-120		05/08/2019 17:03	WG1277852	⁴ Cn
(S) 4-Bromofluorobenzene	94.1			77.0-126		05/08/2019 17:03	WG1277852	⁵ Sr
(S) 1,2-Dichloroethane-d4	102			70.0-130		05/08/2019 17:03	WG1277852	⁶ Qc
								⁷ Gl
								⁸ Al
								⁹ Sc
							JC 5/16/19	



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	05/08/2019 14:45	WG1277738
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	85.2			78.0-120		05/08/2019 14:45	WG1277738

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
Acetone	U		1.05	25.0	1	05/08/2019 14:27	WG1277852
Acrylonitrile	U		0.873	5.00	1	05/08/2019 14:27	WG1277852
Benzene	U		0.0896	0.500	1	05/08/2019 14:27	WG1277852
Bromobenzene	U		0.133	0.500	1	05/08/2019 14:27	WG1277852
Bromodichloromethane	U		0.0800	0.500	1	05/08/2019 14:27	WG1277852
Bromoform	U		0.145	0.500	1	05/08/2019 14:27	WG1277852
Bromomethane	U		0.186	0.500	1	05/08/2019 14:27	WG1277852
n-Butylbenzene	U		0.143	0.500	1	05/08/2019 14:27	WG1277852
sec-Butylbenzene	U		0.134	0.500	1	05/08/2019 14:27	WG1277852
tert-Butylbenzene	U		0.183	0.500	1	05/08/2019 14:27	WG1277852
Carbon disulfide	U		0.101	0.500	1	05/08/2019 14:27	WG1277852
Carbon tetrachloride	U		0.159	0.500	1	05/08/2019 14:27	WG1277852
Chlorobenzene	U		0.140	0.500	1	05/08/2019 14:27	WG1277852
Chlorodibromomethane	U		0.128	0.500	1	05/08/2019 14:27	WG1277852
Chloroethane	U		0.141	2.50	1	05/08/2019 14:27	WG1277852
Chloroform	U		0.0860	0.500	1	05/08/2019 14:27	WG1277852
Chloromethane	U		0.153	1.25	1	05/08/2019 14:27	WG1277852
2-Chlorotoluene	U		0.111	0.500	1	05/08/2019 14:27	WG1277852
4-Chlorotoluene	U		0.0972	0.500	1	05/08/2019 14:27	WG1277852
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/08/2019 14:27	WG1277852
1,2-Dibromoethane	U		0.193	0.500	1	05/08/2019 14:27	WG1277852
Dibromomethane	U		0.117	0.500	1	05/08/2019 14:27	WG1277852
1,2-Dichlorobenzene	U		0.101	0.500	1	05/08/2019 14:27	WG1277852
1,3-Dichlorobenzene	U		0.130	0.500	1	05/08/2019 14:27	WG1277852
1,4-Dichlorobenzene	U		0.121	0.500	1	05/08/2019 14:27	WG1277852
Dichlorodifluoromethane	U		0.127	2.50	1	05/08/2019 14:27	WG1277852
1,1-Dichloroethane	U		0.114	0.500	1	05/08/2019 14:27	WG1277852
1,2-Dichloroethane	U		0.108	0.500	1	05/08/2019 14:27	WG1277852
1,1-Dichloroethene	U		0.188	0.500	1	05/08/2019 14:27	WG1277852
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/08/2019 14:27	WG1277852
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/08/2019 14:27	WG1277852
1,2-Dichloropropane	U		0.190	0.500	1	05/08/2019 14:27	WG1277852
1,1-Dichloropropene	U		0.128	0.500	1	05/08/2019 14:27	WG1277852
1,3-Dichloropropane	U		0.147	1.00	1	05/08/2019 14:27	WG1277852
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/08/2019 14:27	WG1277852
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/08/2019 14:27	WG1277852
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/08/2019 14:27	WG1277852
2,2-Dichloropropane	U		0.0929	0.500	1	05/08/2019 14:27	WG1277852
Di-isopropyl ether	U		0.0924	0.500	1	05/08/2019 14:27	WG1277852
Ethylbenzene	U		0.158	0.500	1	05/08/2019 14:27	WG1277852
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/08/2019 14:27	WG1277852
2-Hexanone	U		0.757	5.00	1	05/08/2019 14:27	WG1277852
n-Hexane	U		0.305	5.00	1	05/08/2019 14:27	WG1277852
Iodomethane	U		0.377	10.0	1	05/08/2019 14:27	WG1277852
Isopropylbenzene	U		0.126	0.500	1	05/08/2019 14:27	WG1277852
p-Isopropyltoluene	U		0.138	0.500	1	05/08/2019 14:27	WG1277852
2-Butanone (MEK)	U		1.28	5.00	1	05/08/2019 14:27	WG1277852

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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	
Methylene Chloride	U		1.07	2.50	1	05/08/2019 14:27	WG1277852	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/08/2019 14:27	WG1277852	² Tc
Methyl tert-butyl ether	U		0.102	0.500	1	05/08/2019 14:27	WG1277852	³ Ss
Naphthalene	U		0.174	2.50	1	05/08/2019 14:27	WG1277852	
n-Propylbenzene	U		0.162	0.500	1	05/08/2019 14:27	WG1277852	
Styrene	U		0.117	0.500	1	05/08/2019 14:27	WG1277852	⁴ Cn
1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/08/2019 14:27	WG1277852	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/08/2019 14:27	WG1277852	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/08/2019 14:27	WG1277852	⁵ Sr
Tetrachloroethene	U		0.199	0.500	1	05/08/2019 14:27	WG1277852	
Toluene	U		0.412	0.500	1	05/08/2019 14:27	WG1277852	⁶ Qc
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/08/2019 14:27	WG1277852	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/08/2019 14:27	WG1277852	
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/08/2019 14:27	WG1277852	
1,1,2-Trichloroethane	U		0.186	0.500	1	05/08/2019 14:27	WG1277852	
Trichloroethene	U		0.153	0.500	1	05/08/2019 14:27	WG1277852	
Trichlorofluoromethane	U		0.130	2.50	1	05/08/2019 14:27	WG1277852	
1,2,3-Trichloropropane	U		0.247	2.50	1	05/08/2019 14:27	WG1277852	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/08/2019 14:27	WG1277852	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/08/2019 14:27	WG1277852	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/08/2019 14:27	WG1277852	
Vinyl acetate	U		0.645	5.00	1	05/08/2019 14:27	WG1277852	
Vinyl chloride	U		0.118	0.500	1	05/08/2019 14:27	WG1277852	
Xylenes, Total	U		0.316	1.50	1	05/08/2019 14:27	WG1277852	JC 5/16/19
(S) Toluene-d8	94.0			80.0-120		05/08/2019 14:27	WG1277852	
(S) 4-Bromofluorobenzene	94.3			77.0-126		05/08/2019 14:27	WG1277852	
(S) 1,2-Dichloroethane-d4	105			70.0-130		05/08/2019 14:27	WG1277852	