



August 19, 2021

TO: Cris Matthews (Ecology)
FROM: Karen Mixon (AECOM)

CC: Nisha Jones (Trans Mountain), Dale McClary (Trans Mountain), Cary Brown (AECOM),
Demetrio Cabanillas (AECOM), Dan Heimbigner (Whatcom Environmental)

RE: AECOM Progress Report – January 1 to June 30, 2021
PROJECT: Cleanup Action
Consent Decree No. 14-2-01294-9 (effective 6-5-2014)
Laurel Station
1009 E. Smith Road, Bellingham, Washington

TRANS MOUNTAIN PM: Nisha Jones
ECOLOGY CASE MGR: Cris Matthews
AECOM PM: Karen Mixon
AECOM PROJECT NO: 60651171

Introduction:

This progress report is presented in accordance with Consent Decree 14-2-01294-9 (effective 6-5-2014) and is intended to present the information as noted under Section XI PROGRESS REPORTS in the Consent Decree.

Work Accomplished During Reporting Period:

DPE System Operation

From January 1 to July 1, 2021, the DPE system operated in DPE and SVE mode as noted in the table below. The DPE well locations are shown on attached **Figure 1 Pump Station Area**. Wells were turned on or off based on current site conditions to maximize contaminant recovery. The system operation approach continued in a “pulsed” operation mode during this reporting period. Pulsed operation means that active extraction occurs in intervals separated by periods of no extraction which allows time for diffusion of mass to re-enter permeable pathways. This maximizes contaminant recovery with reduced operational costs and allows assessment of the current removal efficiency of the system as it reaches a point of diminishing returns. Operational changes were made based on monitoring data collected weekly if the system was not shutdown. System downtime was generally short duration related to quarterly groundwater sampling and routine maintenance with longer shutdowns specifically related to pulsed operation. Through July 1, 2021, the system has operated 85 percent of the time over nearly 6 years since startup on July 17, 2015. The operational efficiency was 87 percent when pulsed operation commenced in September 2020.

Month 2021	System Mode	Wells On-line
January	SVE	January 1 - 31, DPE 1, -2, -3, -4, -6, -7, and -8
February	Shutdown	February 1 – 28, Shutdown as part of pulsed operation
March	Shutdown	March 1 – 7, System shutdown continued as part of pulsed operations
	DPE	March 8 – 31, DPE-3, -4, -5, and -7
April	DPE	April 1 – 13, DPE-3, -4, -5, and -7
	Shutdown	April 13 - 30, Shutdown as part of pulsed operations
May	Shutdown	May 1 – 3, Shutdown as part of pulsed operations
	DPE	May 3 – 9, DPE-4, -5, and -7
	DPE	May 10 – 20, DPE-3, -4, -5, and -7
	SVE	May 21 -31, DPE-1, -2, -3, and -4
June	SVE	June 1 – 17, DPE-1, -2, -3, and -4
	Shutdown	June 18 – 22, Shutdown for quarterly groundwater event
	SVE	June 23 - 26, DPE-1, -2, -3, and -4
	Shutdown	June 26 – 30, Shutdown due to high heat exchanger temperature that automatically shut the system down.

When flow occurs, treated groundwater from the system was sampled weekly by Whatcom Environmental as required by the Administrative Order to the facility NPDES permit. There were no exceedances of indicator levels specified in the permit for treated groundwater samples collected during this period. As of July 1, 2021, approximately 209,276 gallons of water have been removed from the subsurface since the system was started in July 2015. A graph showing monthly groundwater volumes removed is attached. No measurable product has been observed or recovered by the system to date.

As of July 1, 2021, approximately 8,129 pounds (27.7 barrels) of constituents of concern (COCs) have been removed from the vapor phase since the system started operating in July 2015. Graphs showing the cumulative removal of COCs from vapor by the system through July 1, 2021 are attached. Two mass removal calculations are completed using different input data that is collected on a regular basis. The primary mass removal estimate (8,129 pounds) is based on calculations made using PID and flow measurements at the combined vapor monitoring point prior to the vapor GAC vessels (system cumulative). The second estimate calculates the mass removal based on individual well measurements which are summed together. The cumulative mass removal estimate based on summation of measurements for each well is 8,401 pounds which is approximately 3.4 percent higher than the estimate using data from one combined sample location prior to GAC treatment.

Vapor-phase monitoring of the extracted air using a PID was conducted by Whatcom Environmental weekly during system operation to monitor the vapor GAC treatment system. The GAC is changed out when PID measurements at the mid-treatment location exceed 50 ppm; during this reporting period, the GAC was changed out on April 19, 2021.

Groundwater Monitoring

The well locations are shown on **Figure 1 Pump Station Area**. Wells MW-4, MW-6, MW-15, MW-16, and DPE-4 are intended to be sampled quarterly as referenced in the Compliance Monitoring Plan and updated during discussion with Ecology on October 1, 2015 (CMP, URS 2015).

AECOM conducted quarterly groundwater monitoring on March 8 and June 22, 2021. Only well MW-6 was sampled on these dates as the remaining wells were dry or did not have sufficient water to sample. Water level data for the monitoring well network is provided in **Table 1** attached to this progress report.

AECOM completed the data review for both groundwater sampling events and the summary data table (**Table 2**), data validation memos, and laboratory reports are attached. Petroleum hydrocarbons (gasoline-, diesel-, and motor oil range), and BTEX were not detected in samples collected during the two events. PAHs were not detected in the sample collected in March. PAHs were detected in the June sample at concentrations below groundwater cleanup levels for the site.

Submittals/Agency Contacts:

- January 4 through April 2021 – several communications between Ecology and Trans Mountain by email and phone regarding final completion of the environmental covenant and preparation for signature.
- January 14, 2021 – A Final As-Built Report was submitted to Ecology for approval.
- January 22, 2021 – AECOM submitted a progress report to Ecology for the period July 1 – December 31, 2020.
- March 10, 2021 – The electronic data submittal to Ecology’s EIM database for the 2020 groundwater sample data was approved by Ecology’s EIM coordinator.
- April 26, 2021 – Trans Mountain emailed notification to Ecology of change of Trans Mountain project coordinator from Mike Droppo to Nisha Jones.

Deviations to Approved Plans Not Previously Documented:

None

Deviation to Scope of Work and Schedule as Presented in the Cleanup Action Plan (Exhibit A of Consent Decree):

There were no changes from previous progress reports to the overall Scope of Work described in the Cleanup Action Plan (CAP).

Data Received During Reporting Period: Groundwater monitoring data collected on March 8, 2021. The groundwater data collected on June 22, 2021 was received from the laboratory on July 10, 2021 and is included in this progress report.

Plans for the Next Reporting Period:

The following are planned activities for the period from July 1 to December 31, 2021.

- Continue to operate and maintain the DPE system.
- Submit report summarizing additional groundwater data collection and evaluation based on the March 29, 2019 memorandum to assess perched groundwater conditions.
- Complete the execution of the Environmental Covenant associated with the site Cleanup Action and file with Whatcom County.
- Confirm approval by Ecology of the Final As-Built Report documenting the construction phase of the Cleanup Action.
- Collect 3rd and 4th quarter groundwater monitoring samples. Complete validation of the quarterly groundwater data and submit to Ecology with Progress Report on January 10, 2022.

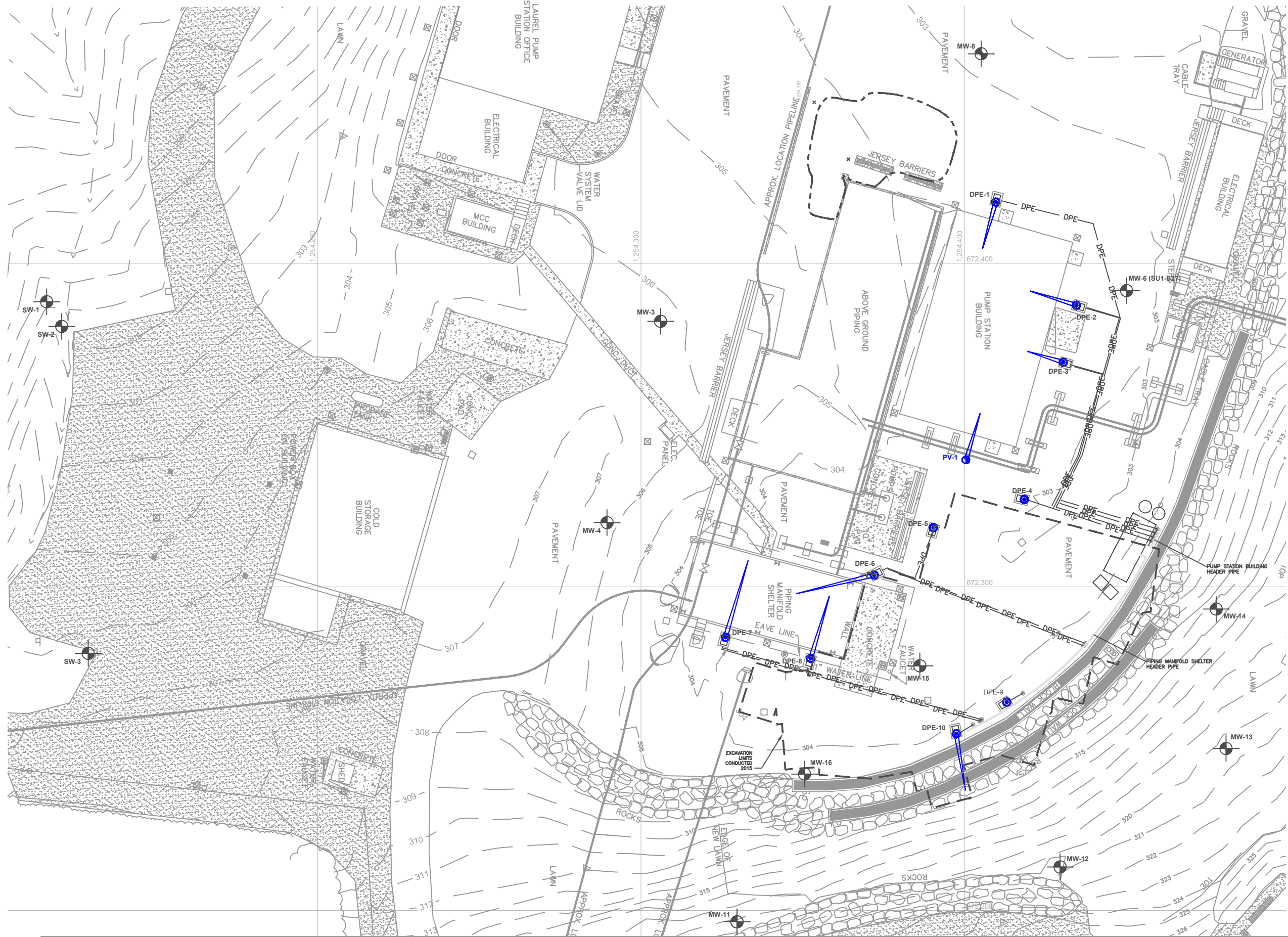
Please contact Karen Mixon at (206) 438-2234 if you have any questions or comments regarding this progress report.

References:

URS Corporation, 2015. Final Compliance Monitoring Plan, Laurel Station, 1009 East Smith Road, Bellingham, Washington, January 16.

Attachments:

- Figure 1 – Pump Station Area
- DPE System Performance Graphs
- Table 1 – Monitoring Well Groundwater Elevation Data Summary
- Table 2 – Groundwater Monitoring Results
- Data Validation and ARI Lab Report (21C0139) – Quarterly Groundwater Samples – March 2021
- Data Validation and ARI Lab Report (21F0362) – Quarterly Groundwater Samples – June 2021



- Legend**
- DPE Container
 - Liquid-Phase Carbon Vessels
 - Vapor-Phase Carbon Vessels
 - Dual Phase Extraction Well Vault
 - Excavation Limits (2014-2015)
 - Excavation Limits (2019 SU1-B11)
 - Installed at Angle Shown With Horizontal Extent
 - Dual-Phase Extraction (DPE) Well
 - Monitoring Well
 - Passive Vent Well
 - Segmented Concrete Block (Retaining Wall)
 - Underground DPE Lateral Pipe
 - Ground Rod

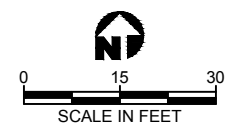
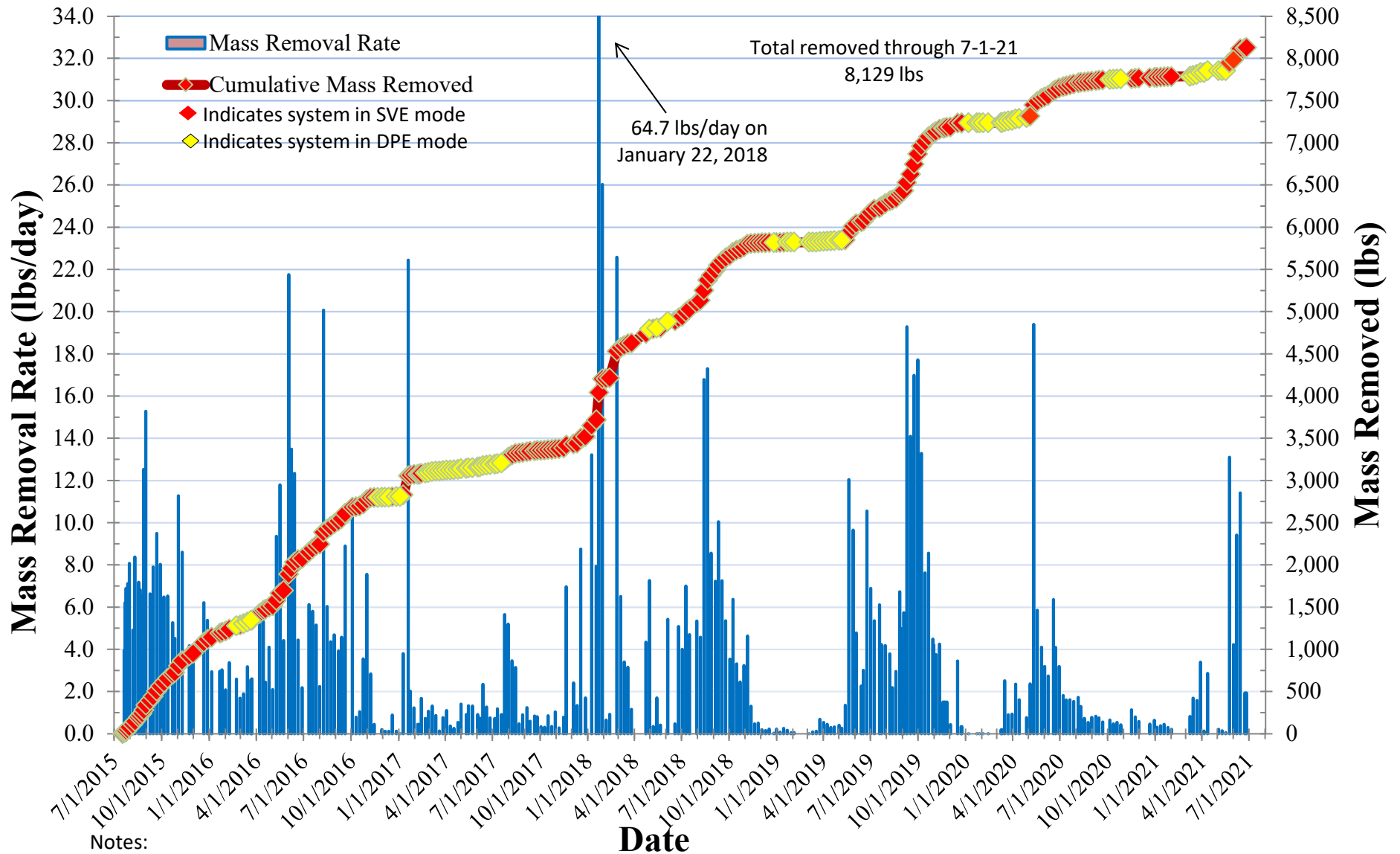


Figure 1
Pump Station Area

COMBINED SYSTEM MASS REMOVAL DATA

Laurel Station DPE System

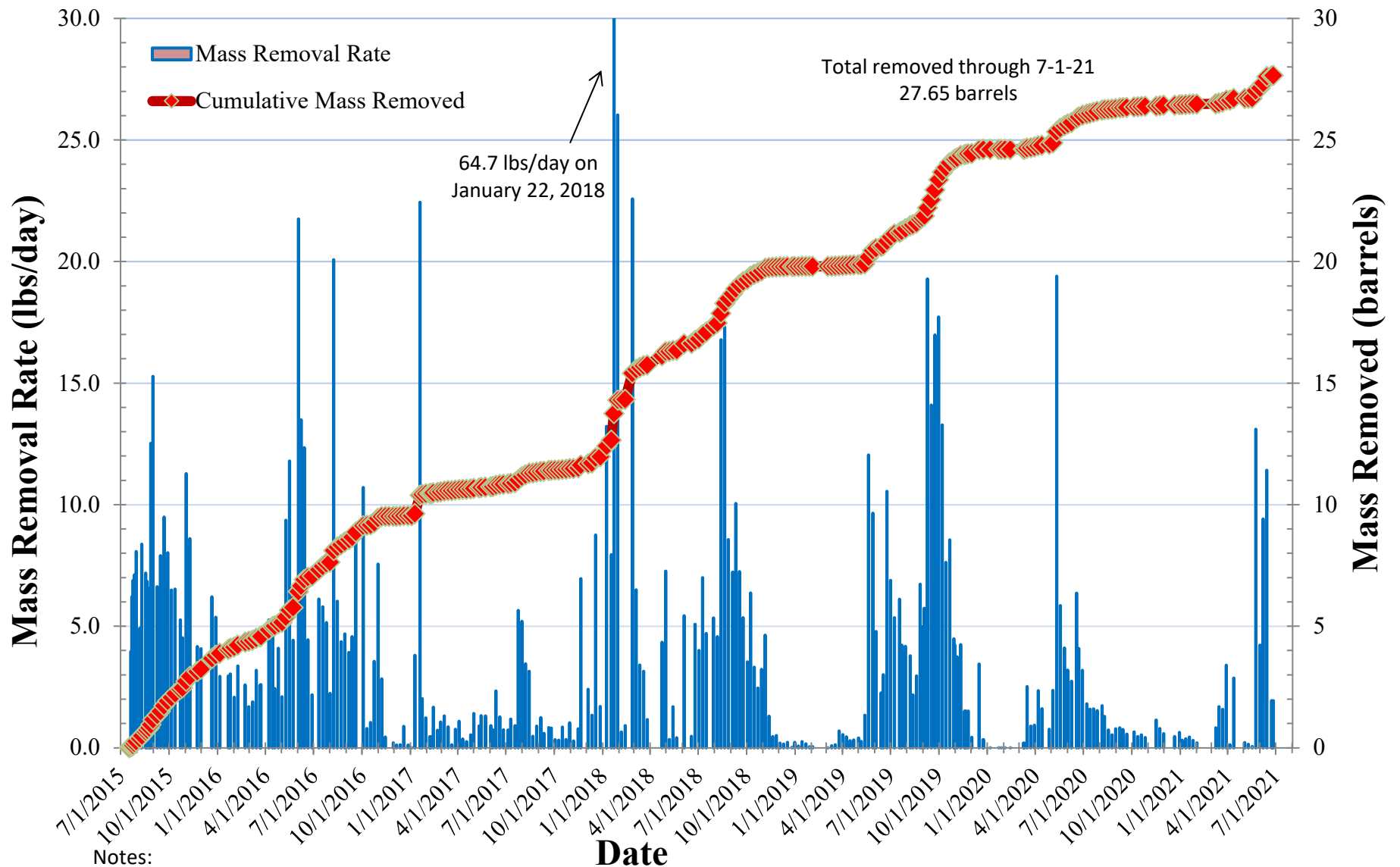


Notes:

1. Data shown from July 17, 2015 through July 1, 2021, after approximately 72 months of operation.
2. The Cumulative Mass Removed is based on data taken from the pre-treatment sampling port directly before carbon treatment.

COMBINED SYSTEM MASS REMOVAL DATA

Laurel Station DPE System

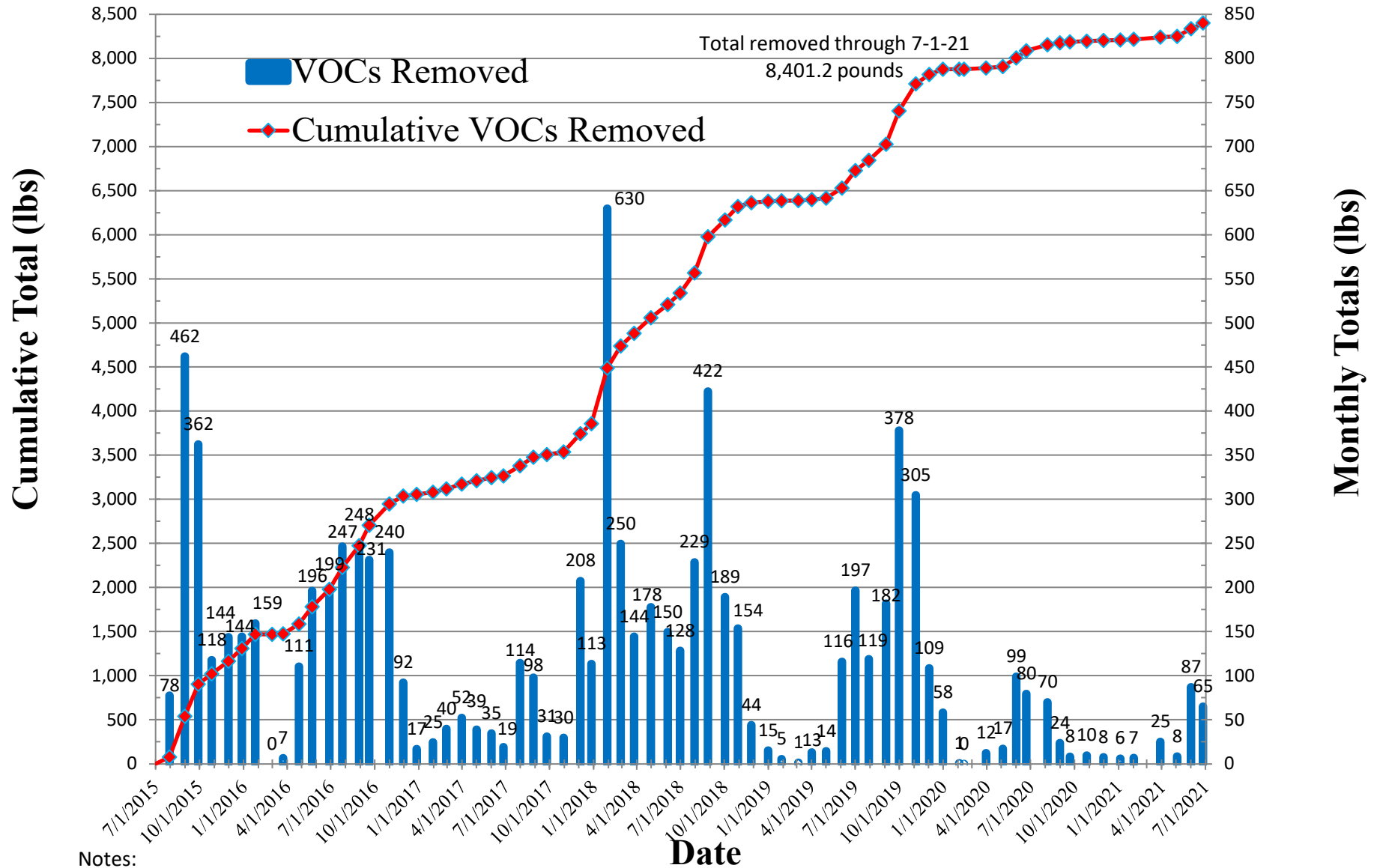


Notes:

1. Data shown from July 17, 2015 through July 1, 2021 after approximately 71 months of operation.
2. The Cumulative Mass Removed is based on data taken from the pre-treatment sampling port directly before carbon treatment.

Mass Removed by DPE System

Laurel Station DPE System

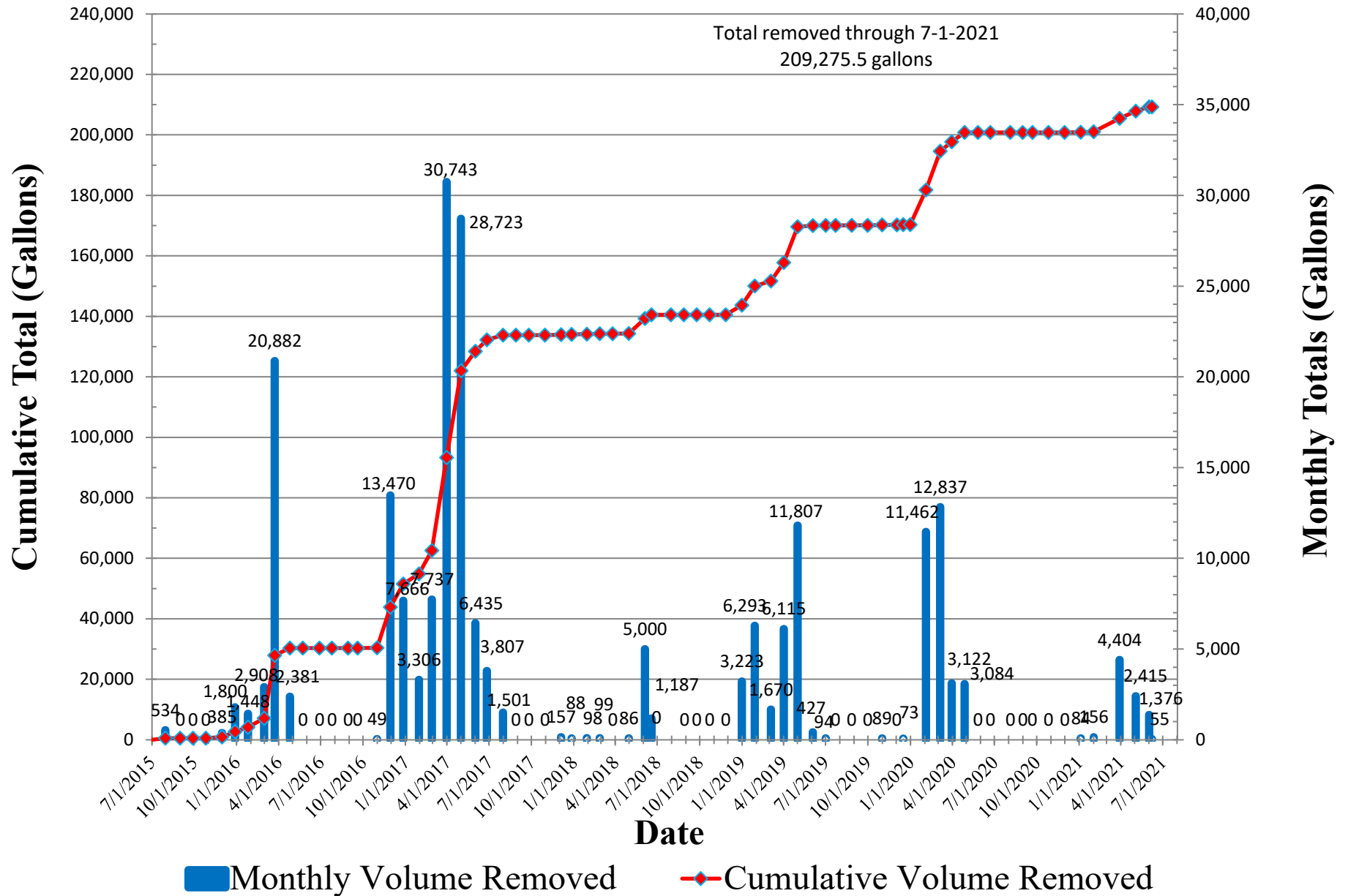


Notes:

1. Data shown from July 17, 2015 through June 23, 2021, after approximately 71 months of operation.
2. The Cumulative Mass Removed is based on data taken from individual wells and added together.

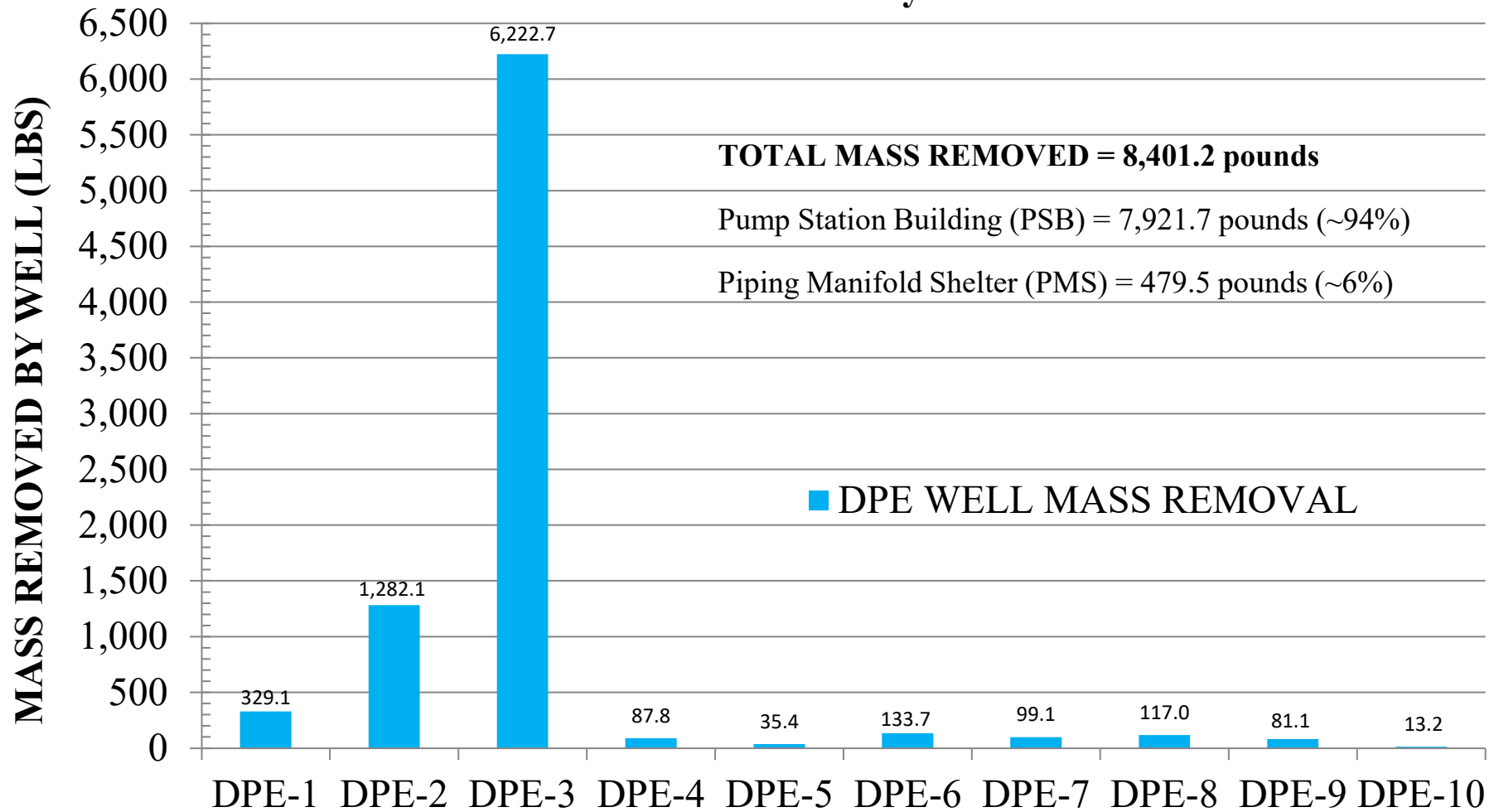
Water Removed by DPE System

Laurel Station DPE System



MASS REMOVAL DISTRIBUTION - Cumulative

Laurel Station DPE System



Notes:

1. Estimated mass removal from July 17, 2015 through July 1, 2021
2. The TOTAL represents the sum of all 10 individual wells
3. Mass removed from the PSB and PMS were calculated based on the mass removed from individual wells
4. DPE-1 through 4 are PSB wells, DPE-5 through 10 are PMS wells.

DPE WELL

Table 1
Monitoring Well Groundwater Elevation Data Summary
Laurel Station
Bellingham, Washington

Well ID	Date Measured	Total Depth ^a (ft-TOC)	TOC Elevation ^b (ft-NAVD88)	Approximate Screen Interval (ft-bgs)	Approximate Screen Interval Elevation (ft-NAVD88)	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-NAVD88)	Thickness of Water Column (ft)
SW-1	4/23/2015	18.50	300.64	5 - 20	295.64 - 280.64	4.30	296.34	14.20
	12/14/2015	18.35				4.10	296.54	14.25
	1/25/2016	18.68				5.09	295.55	13.59
	2/22/2016 *	17.39				14.20	286.44	3.19
	3/21/2016	18.57				5.08	295.56	13.49
	4/25/2016	18.59				DRY	NC	NC
	5/23/2016	18.62				DRY	NC	NC
	6/27/2016	18.40				4.72	295.92	13.68
	8/8/2016	18.37				4.85	295.79	13.52
	8/30/2016	18.40				3.60	297.04	14.80
	9/26/2016	18.37				4.85	295.79	13.52
	10/24/2016	18.40				4.54	296.10	13.86
	11/21/2016	18.36				4.65	295.99	13.71
	12/21/2016	18.40				4.43	296.21	13.97
	1/23/2017	18.40				2.80	297.84	15.60
	3/6/2017	18.25				3.48	297.16	14.77
	3/21/2017	18.52				4.17	296.47	14.35
	3/29/2017	18.45				2.82	297.82	15.63
	6/21/2017	18.39				4.95	295.69	13.44
	6/26/2017	18.56				5.65	294.99	12.91
	7/31/2017	18.41				7.18	293.46	11.23
	8/28/2017	18.38				7.69	292.95	10.69
	9/25/2017	18.27				5.70	294.94	12.57
	9/27/2017	18.20				5.97	294.67	12.23
	10/30/2017	18.31				5.00	295.64	13.31
	11/20/2017	18.37				3.09	297.55	15.28
	12/18/2017	18.44				2.99	297.65	15.45
	1/4/2018	18.47				5.00	295.64	13.47
	1/22/2018	18.27				4.09	296.55	14.18
	2/26/2018	18.43				4.65	295.99	13.78
	3/26/2018	18.37				4.52	296.12	13.85
	4/5/2018	18.40				3.35	297.29	15.05
	4/23/2018	18.47				5.09	295.55	13.38
	5/21/2018	18.43				5.58	295.06	12.85
	6/18/2018	18.35				6.38	294.26	11.97
	6/27/2018	18.39				6.72	293.92	11.67
	7/30/2018	18.42				7.51	293.13	10.91
	8/27/2018	18.47				8.07	292.57	10.40
	9/24/2018	18.40				4.69	295.95	13.71
	10/1/2018	18.38				4.91	295.73	13.47
	10/22/2018	18.42				5.99	294.65	12.43
	11/26/2018	18.43				4.26	296.38	14.17
	12/19/2018	18.34				4.22	296.42	14.12
	12/31/2018	18.71				4.82	295.82	13.89
	1/28/2019	18.43				4.82	295.82	13.61
	2/25/2019	18.34				4.75	295.89	13.59
	3/18/2019	18.34				4.81	295.83	13.53
	3/20/2019	18.26				4.77	295.87	13.49
	4/15/2019	18.40				4.63	296.01	13.77
	5/20/2019	18.41				5.13	295.51	13.28
	6/17/2019	18.38				5.67	294.97	12.71
	7/22/2019	18.25				6.04	294.60	12.21
	8/26/2019	18.25				Not Measured		
	9/23/2019	18.27				4.81	295.83	13.46
	10/2/2019	18.29				5.21	295.43	13.08
	11/21/2019	18.27				4.70	295.94	13.57
12/16/2019	18.40	4.68	295.96	13.72				
12/18/2019	18.43	4.83	295.81	13.60				
1/22/2020	18.46	3.16	297.48	15.30				
3/5/2020	18.15	4.64	296.00	13.51				
3/23/2020	18.28	5.24	295.40	13.04				
4/27/2020	18.39	11.70	288.94	6.69				
5/26/2020	18.46	4.42	296.22	14.04				
6/17/2020	18.45	4.15	296.49	14.30				
7/20/2020	18.37	5.58	295.06	12.79				
8/17/2020	18.55	6.67	293.97	11.88				
9/23/2020	18.52	---	---	---				
9/30/2020	18.53	5.23	295.41	13.30				
10/26/2020	18.27	4.84	295.80	13.43				
11/30/2020	18.59	4.40	296.24	14.19				
12/21/2020	18.50	4.30	296.34	14.20				
1/18/2021	18.49	4.62	296.02	13.87				
4/5/2021	18.40	5.19	295.45	13.21				
5/3/2021	18.52	5.63	295.01	12.89				
5/24/2021	18.35	5.90	294.74	12.45				
6/22/2021	18.36	5.52	295.12	12.84				

Table 1
Monitoring Well Groundwater Elevation Data Summary
Laurel Station
Bellingham, Washington

Well ID	Date Measured	Total Depth ^a (ft-TOC)	TOC Elevation ^b (ft-NAVD88)	Approximate Screen Interval (ft-bgs)	Approximate Screen Interval Elevation (ft-NAVD88)	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-NAVD88)	Thickness of Water Column (ft)
SW-2	4/23/2015	49.75	301.37	40 - 50	261.37 - 251.37	37.59	263.78	12.16
	2/22/2016	50.26				DRY	NC	NC
	3/21/2016	50.03				36.86	264.51	13.17
	4/25/2016	50.25				DRY	NC	NC
	5/23/2016	50.15				DRY	NC	NC
	6/27/2016	49.75				37.61	263.76	12.14
	8/8/2016	50.20				37.64	263.73	12.56
	8/30/2016 *	56.60				38.02	263.35	18.58
	9/26/2016	50.47				37.87	263.50	12.60
	10/24/2016 *	55.00				38.29	263.08	16.71
	11/21/2016	51.30				37.44	263.93	13.86
	12/21/2016	50.69				37.23	264.14	13.46
	1/23/2017 *	53.50				37.53	263.84	15.97
	3/6/2017	49.60				37.29	264.08	12.31
	3/21/2017	49.91				46.69	254.68	3.22
	3/29/2017	49.89				36.85	264.52	13.04
	6/21/2017	49.61				37.21	264.16	12.40
	6/26/2017	50.10				37.42	263.95	12.68
	7/31/2017	49.81				37.84	263.53	11.97
	8/28/2017	49.82				37.79	263.58	12.03
	9/25/2017	49.87				37.83	263.54	12.04
	9/27/2017	49.69				37.97	263.40	11.72
	10/30/2017	49.84				38.09	263.28	11.75
	11/20/2017	49.83				38.98	262.39	10.85
	12/18/2017	49.92				37.92	263.45	12.00
	1/4/2018	49.92				37.39	263.98	12.53
	1/22/2018	49.81				37.17	264.20	12.64
	2/26/2018	49.84				37.15	264.22	12.69
	3/26/2018	49.80				37.49	263.88	12.31
	4/5/2018	49.68				37.43	263.94	12.25
	4/23/2018	49.89				36.97	264.40	12.92
	5/21/2018	49.82				37.45	263.92	12.37
	6/18/2018	49.74				37.48	263.89	12.26
	6/27/2018	49.87				37.58	263.79	12.29
	7/30/2018	49.81				37.64	263.73	12.17
	8/27/2018	49.83				37.86	263.51	11.97
	9/24/2018	49.84				37.85	263.52	11.99
	10/1/2018	49.80				38.30	263.07	11.50
	10/22/2018	49.81				38.13	263.24	11.68
	11/26/2018	49.84				40.91	260.46	8.93
	12/19/2018	49.78				40.20	261.17	9.58
	12/31/2018	49.89				39.89	261.48	10.00
	1/28/2019	49.84				37.48	263.89	12.36
	2/25/2019	49.89				37.73	263.64	12.16
	3/18/2019	49.83				37.70	263.67	12.13
	3/20/2019	49.71				37.50	263.87	12.21
	4/15/2019	49.84				37.47	263.90	12.37
	5/20/2019	49.82				37.38	263.99	12.44
	6/17/2019	49.80				37.66	263.71	12.14
	7/22/2019	49.83				37.76	263.61	12.07
8/26/2019	49.83	Not Measured						
9/23/2019	49.84	38.80	262.57	11.04				
10/2/2019	50.80	39.50	261.87	11.30				
11/21/2019	49.84	41.01	260.36	8.83				
12/16/2019	49.81	40.76	260.61	9.05				
12/18/2019	49.85	40.83	260.54	9.02				
1/22/2020	49.80	38.00	263.37	11.80				
3/5/2020	49.79	37.20	264.17	12.59				
3/23/2020	49.85	36.06	265.31	13.79				
4/27/2020	49.49	37.30	264.07	12.19				
5/26/2020	49.72	37.71	263.66	12.01				
6/17/2020	49.81	37.84	263.53	11.97				
7/20/2020	49.89	37.52	263.85	12.37				
8/17/2020	49.83	37.84	263.53	11.99				
9/23/2020	49.83	39.63	261.74	10.20				
9/30/2020	49.89	40.23	261.14	9.66				
10/26/2020	49.79	40.84	260.53	8.95				
11/30/2020	49.89	40.28	261.09	9.61				
12/21/2020	49.86	39.74	261.63	10.12				
1/18/2021	50.10	37.44	263.93	12.66				
4/5/2021	49.85	37.51	263.86	12.34				
5/3/2021	50.05	37.59	263.78	12.46				
5/24/2021	49.95	37.48	263.89	12.47				
6/22/2021	49.82	37.78	263.59	12.04				

Table 1
Monitoring Well Groundwater Elevation Data Summary
Laurel Station
Bellingham, Washington

Well ID	Date Measured	Total Depth ^a (ft-TOC)	TOC Elevation ^b (ft-NAVD88)	Approximate Screen Interval (ft-bgs)	Approximate Screen Interval Elevation (ft-NAVD88)	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-NAVD88)	Thickness of Water Column (ft)
SW-3 ^c	4/23/2015	34.75	309.48	22 - 32	284.48 - 274.48	32.19	277.29	2.56
	12/14/2015	34.78				33.11	276.37	1.67
	1/25/2016	35.12				32.40	277.08	2.72
	2/22/2016	34.86				DRY	NC	NC
	3/21/2016	34.91				31.98	277.50	2.93
	4/25/2016	34.91				DRY	NC	NC
	5/23/2016	35.03				DRY	NC	NC
	6/27/2016	34.70				DRY	NC	NC
	8/8/2016 *	32.60				DRY	NC	NC
	8/30/2016	35.10				32.40	277.08	2.70
	9/26/2016	35.20				33.29	276.19	1.91
	10/24/2016	34.69				32.65	276.83	2.04
	11/21/2016 *	33.77				32.17	277.31	1.60
	12/21/2016	35.14				32.29	277.19	2.85
	1/23/2017	34.65				32.70	276.78	1.95
	3/6/2017	34.66				31.69	277.79	2.97
	3/21/2017	34.08				31.70	277.78	2.38
	3/29/2017	34.85				31.82	277.66	3.03
	6/21/2017	34.68				33.63	275.85	1.05
	6/26/2017	34.84				33.70	275.78	1.14
	7/31/2017	34.80				34.42	275.06	0.38
	8/28/2017	34.74				DRY	NC	NC
	9/25/2017	34.64				DRY	NC	NC
	9/27/2017	34.45				DRY	NC	NC
	10/30/2017	30.66				DRY	NC	NC
	11/20/2017	34.66				33.38	276.10	1.28
	12/18/2017	34.71				32.43	277.05	2.28
	1/4/2018	frozen @ 4.79				well frozen at top		
	1/22/2018	34.71				31.94	277.54	2.77
	2/26/2018	34.76				32.15	277.33	2.61
	3/26/2018	34.73				33.00	276.48	1.73
	4/5/2018	34.68				31.91	277.57	2.77
	4/23/2018	34.80				32.07	277.41	2.73
	5/21/2018	34.78				32.23	277.25	2.55
	6/18/2018	34.74				33.86	275.62	0.88
	6/27/2018	34.36				34.05	275.43	0.31
	7/30/2018	34.81				34.62	274.86	0.19
	8/27/2018	34.75				DRY	NC	NC
	9/24/2018	34.72				DRY	NC	NC
	10/1/2018	34.60				DRY	NC	NC
	10/22/2018	34.65				DRY	NC	NC
	11/26/2018	34.68				33.32	276.16	1.36
	12/19/2018	34.70				33.21	276.27	1.49
	12/31/2018	34.68				32.41	277.07	2.27
	1/28/2019	34.70				31.93	277.55	2.77
	2/25/2019	34.73				33.00	276.48	1.73
	3/18/2019	34.74				33.19	276.29	1.55
	3/20/2019	34.64				33.05	276.43	1.59
	4/15/2019	34.74				33.47	276.01	1.27
	5/20/2019	--				could not remove cap		
	6/17/2019	34.74				33.99	275.49	0.75
	7/22/2019	34.70				DRY	NC	NC
	8/26/2019	34.70				Not Measured		
	9/23/2019	34.71				DRY	NC	NC
	10/2/2019	34.58				DRY	NC	NC
	11/21/2019	34.71				33.52	275.96	1.19
	12/16/2019	34.72				33.42	276.06	1.30
	12/18/2019	34.68				33.44	276.04	1.24
	1/22/2020	34.73				32.20	277.28	2.53
	3/5/2020	34.68				32.46	277.02	2.22
	3/23/2020	34.81				32.58	276.90	2.23
	4/27/2020	34.72				DRY	NC	NC
5/26/2020	34.75	DRY	NC	NC				
6/17/2020	34.77	33.57	275.91	1.20				
7/20/2020	34.76	DRY	NC	NC				
8/17/2020	34.75	DRY	NC	NC				
9/23/2020	34.36	DRY	NC	NC				
9/30/2020	34.62	DRY	NC	NC				
10/26/2020	34.63	DRY	NC	NC				
11/30/2020	34.70	32.48	277.00	2.22				
12/21/2020	34.69	32.75	276.73	1.94				
1/18/2021	34.73	32.10	277.38	2.63				
4/5/2021	34.75	33.48	276.00	1.27				
5/3/2021	34.77	33.96	275.52	0.81				
5/24/2021	34.71	DRY	NC	NC				
6/22/2021	34.72	DRY	NC	NC				

Table 1
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Well ID	Date Measured	Total Depth ^a (ft-TOC)	TOC Elevation ^b (ft-NAVD88)	Approximate Screen Interval (ft-bgs)	Approximate Screen Interval Elevation (ft-NAVD88)	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-NAVD88)	Thickness of Water Column (ft)
DPE-4	4/23/2015	16.91	302.30	6.5 - 16.5	298.51 - 288.51	8.46	293.30	8.45
	10/26/2015	17.00				16.50	285.80	0.50
	12/14/2015	15.70				15.50	286.80	0.20
	1/25/2016	15.70				14.77	287.53	0.93
	2/22/2016	16.14				15.90	286.40	0.24
	3/21/2016	15.09				14.95	287.35	0.14
	4/25/2016	15.14				DRY	NC	NC
	5/23/2016	15.15				DRY	NC	NC
	6/23/2016	15.13				DRY	NC	NC
	8/1/2016	16.16				DRY	NC	NC
	8/30/2016	15.11				DRY	NC	NC
	9/26/2016	14.88				DRY	NC	NC
	10/24/2016	14.90				DRY	NC	NC
	11/21/2016	15.12				15.07	287.23	0.05
	12/21/2016	15.40				DRY	NC	NC
	1/23/2017	14.82				DRY	NC	NC
	3/9/2017	14.87				DRY	NC	NC
	3/21/2017	15.12				DRY	NC	NC
	3/29/2017	15.12				DRY	NC	NC
	6/21/2017	15.14				DRY	NC	NC
	6/26/2017	15.12				DRY	NC	NC
	7/31/2017	15.14				15.11	287.19	0.03
	8/28/2017	15.14				DRY	NC	NC
	9/25/2017	15.14				DRY	NC	NC
	9/27/2017	15.01				DRY	NC	NC
	10/30/2017	15.14				DRY	NC	NC
	11/20/2017	15.13				DRY	NC	NC
	12/18/2017	15.12				DRY	NC	NC
	1/4/2018	14.85				DRY	NC	NC
	1/22/2018	15.11				DRY	NC	NC
	2/26/2018	15.10				14.88	287.42	0.22
	3/26/2018	15.17				14.03	288.27	1.14
	4/5/2018	15.10				DRY	NC	NC
	4/23/2018	15.12				12.80	289.50	2.32
	5/21/2018	15.14				DRY	NC	NC
	6/18/2018	15.15				DRY	NC	NC
	6/27/2018	15.14				DRY	NC	NC
	7/30/2018	15.14				DRY	NC	NC
	8/27/2018	15.13				DRY	NC	NC
	9/24/2018	15.13				DRY	NC	NC
	10/1/2018	15.15				DRY	NC	NC
	10/22/2018	15.14				15.04	287.26	0.10
	11/26/2018	15.11				DRY	NC	NC
	12/19/2018	15.12				DRY	NC	NC
	12/31/2018	15.12				DRY	NC	NC
	1/28/2019	15.11				DRY	NC	NC
	2/25/2019	15.10				DRY	NC	NC
	3/18/2019	15.10				DRY	NC	NC
	3/20/2019	15.12				DRY	NC	NC
	4/15/2019	15.10				DRY	NC	NC
	5/6/2019	15.11				DRY	NC	NC
	5/8/2019	15.12				DRY	NC	NC
	5/20/2019	15.12				13.39	288.91	1.73
	6/17/2019	15.13				13.00	289.30	2.13
	6/19/2019	15.15				DRY	NC	NC
	7/22/2019	15.15				14.35	287.95	0.80
	8/26/2019	15.15				DRY	NC	NC
	9/23/2019	15.13				DRY	NC	NC
	10/2/2019	15.14				DRY	NC	NC
	10/31/2019	15.13				DRY	NC	NC
	11/21/2019	15.13				DRY	NC	NC
	12/16/2019	15.15				DRY	NC	NC
12/18/2019	15.10	DRY	NC	NC				
1/22/2020	15.11	DRY	NC	NC				
3/5/2020	14.81	DRY	NC	NC				
3/23/2020	15.11	DRY	NC	NC				
4/27/2020	15.14	DRY	NC	NC				
5/26/2020	15.15	DRY	NC	NC				
6/17/2020	15.15	DRY	NC	NC				
7/20/2020	15.18	DRY	NC	NC				
8/17/2020	15.17	DRY	NC	NC				
9/23/2020	15.17	DRY	NC	NC				
9/30/2020	15.17	DRY	NC	NC				
10/26/2020	15.14	DRY	NC	NC				
11/16/2020	15.16	DRY	NC	NC				
11/30/2020	15.13	13.60	288.70	1.53				
12/21/2020	15.15	DRY	NC	NC				
1/18/2021	15.17	DRY	NC	NC				
4/5/2021	15.15	DRY	NC	NC				
5/3/2021	15.16	DRY	NC	NC				
5/24/2021	15.15	DRY	NC	NC				
6/22/2021	15.15	DRY	NC	NC				

Table 1
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Well ID	Date Measured	Total Depth ^a (ft-TOC)	TOC Elevation ^b (ft-NAVD88)	Approximate Screen Interval (ft-bgs)	Approximate Screen Interval Elevation (ft-NAVD88)	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-NAVD88)	Thickness of Water Column (ft)
MW-3	4/23/2015	33.40	305.83	24 - 34	281.83 - 271.83	DRY	NC	NC
	12/14/2015	33.55				DRY	NC	NC
	1/25/2016	33.39				DRY	NC	NC
	2/22/2016	33.48				DRY	NC	NC
	3/21/2016	33.99				33.36	272.47	0.63
	4/25/2016 *	34.91				DRY	NC	NC
	5/23/2016	33.86				DRY	NC	NC
	6/23/2016 *	35.10				34.50	271.33	0.60
	6/27/2016 *	34.60				33.73	272.10	0.87
	8/8/2016	33.35				DRY	NC	NC
	8/30/2016	34.09				34.00	271.83	0.09
	9/26/2016	33.33				DRY	NC	NC
	10/24/2016	33.88				33.32	272.51	0.56
	11/21/2016	33.80				33.43	272.40	0.37
	12/21/2016	33.40				33.35	272.48	0.05
	1/23/2017	34.00				29.08	276.75	4.92
	3/6/2017	33.47				DRY	NC	NC
	3/21/2017	33.70				DRY	NC	NC
	3/29/2017	33.60				DRY	NC	NC
	6/21/2017	33.51				DRY	NC	NC
	6/26/2017	33.61				DRY	NC	NC
	7/31/2017	33.56				DRY	NC	NC
	8/28/2017	33.54				33.46	272.37	0.08
	9/25/2017	33.55				33.41	272.42	0.14
	9/27/2017	33.38				DRY	NC	NC
	10/30/2017	33.57				33.42	272.41	0.15
	11/20/2017	33.59				33.49	272.34	0.10
	12/18/2017	33.59				33.43	272.40	0.16
	1/4/2018	33.59				DRY	NC	NC
	1/22/2018	33.58				33.47	272.36	0.11
	2/26/2018	33.58				DRY	NC	NC
	3/26/2018	33.57				33.45	272.38	0.12
	4/5/2018	33.52				DRY	NC	NC
	4/23/2018	33.56				DRY	NC	NC
	5/21/2018	33.59				DRY	NC	NC
	6/18/2018	33.58				33.40	272.43	0.18
	6/27/2018	33.55				33.45	272.38	0.10
	7/30/2018	33.57				DRY	NC	NC
	8/27/2018	33.56				DRY	NC	NC
	9/24/2018	33.59				33.46	272.37	0.13
	10/1/2018	30.21				DRY	NC	NC
	10/22/2018	33.59				DRY	NC	NC
	11/26/2018	33.08				DRY	NC	NC
	12/19/2018	33.55				DRY	NC	NC
	12/31/2018	33.57				33.46	272.37	0.11
	1/28/2019	33.58				33.49	272.34	0.09
	2/25/2019	33.60				33.44	272.39	0.16
	3/18/2019	33.58				DRY	NC	NC
	3/20/2019	33.50				33.43	272.40	0.07
	4/15/2019	33.57				33.43	272.40	0.14
	5/6/2019	33.58				33.47	272.36	0.11
	5/8/2019	33.55				DRY	NC	NC
	5/20/2019	33.57				DRY	NC	NC
	6/17/2019	33.58				33.50	272.33	0.08
	6/19/2019	33.58				DRY	NC	NC
	7/22/2019	33.57				DRY	NC	NC
	8/26/2019	33.59				DRY	NC	NC
	9/23/2019	33.58				DRY	NC	NC
	10/2/2019	33.60				DRY	NC	NC
	11/21/2019	33.58				33.49	272.34	0.09
	12/16/2019	33.58				Truck on top of well		
	12/18/2019	33.54				DRY	NC	NC
1/22/2020	33.56	DRY	NC	NC				
3/5/2020	33.55	DRY	NC	NC				
3/23/2020	33.58	DRY	NC	NC				
4/27/2020	33.59	DRY	NC	NC				
5/26/2020	33.56	DRY	NC	NC				
6/17/2020	33.59	DRY	NC	NC				
7/20/2020	33.58	DRY	NC	NC				
8/17/2020	33.55	DRY	NC	NC				
9/23/2020	33.58	DRY	NC	NC				
9/30/2020	33.58	DRY	NC	NC				
10/26/2020	33.58	DRY	NC	NC				
11/30/2020	33.62	33.52	272.31	0.10				
12/21/2020	33.60	DRY	NC	NC				
1/18/2021	33.99	DRY	NC	NC				
4/5/2021	33.59	DRY	NC	NC				
5/3/2021	33.63	DRY	NC	NC				
5/24/2021	33.58	DRY	NC	NC				
6/22/2021	33.58	DRY	NC	NC				

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Well ID	Date Measured	Total Depth ^a (ft-TOC)	TOC Elevation ^b (ft-NAVD88)	Approximate Screen Interval (ft-bgs)	Approximate Screen Interval Elevation (ft-NAVD88)	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-NAVD88)	Thickness of Water Column (ft)
MW-4	4/23/2015	30.15	305.68	20 - 30	285.67 - 275.67	28.07	277.61	2.08
	12/14/2015	30.16				DRY	NC	NC
	1/25/2016	30.34				29.04	276.64	1.30
	2/22/2016	30.37				24.33	281.35	6.04
	3/21/2016	30.35				25.86	279.82	4.49
	4/25/2016 *	33.79				DRY	NC	NC
	5/23/2016	30.47				DRY	NC	NC
	6/23/2016	30.15				29.84	275.84	0.31
	6/27/2016	30.12				29.85	275.83	0.27
	8/8/2016	29.87				DRY	NC	NC
	8/30/2016 *	35.40				29.87	275.81	5.53
	9/26/2016	30.03				DRY	NC	NC
	10/24/2016 *	33.50				24.41	281.27	9.09
	11/21/2016 *	31.30				26.71	278.97	4.59
	12/21/2016	30.04				28.74	276.94	1.30
	1/23/2017 *	33.70				33.35	272.33	0.35
	3/6/2017	30.09				27.02	278.66	3.07
	3/21/2017	31.50				24.14	281.54	7.36
	3/29/2017	30.25				28.91	276.77	1.34
	6/21/2017	30.19				29.45	276.23	0.74
	6/26/2017	30.19				29.44	276.24	0.75
	7/31/2017	30.17				29.84	275.84	0.33
	8/28/2017	30.18				DRY	NC	NC
	9/25/2017	30.19				29.94	275.74	0.25
	9/27/2017	29.99				DRY	NC	NC
	10/30/2017	30.19				29.94	275.74	0.25
	11/20/2017	30.21				29.56	276.12	0.65
	12/18/2017	30.20				29.21	276.47	0.99
	1/4/2018	30.19				28.33	277.35	1.86
	1/22/2018	30.21				28.38	277.30	1.83
	2/26/2018	30.23				28.53	277.15	1.70
	3/26/2018	30.19				29.08	276.60	1.11
	4/5/2018	30.15				29.90	275.78	0.25
	4/23/2018	30.22				24.76	280.92	5.46
	5/21/2018	30.22				21.42	284.26	8.80
	6/18/2018	30.23				29.82	275.86	0.41
	6/27/2018	30.18				29.90	275.78	0.28
	7/30/2018	30.21				29.95	275.73	0.26
	8/27/2018	30.20				29.99	275.69	0.21
	9/24/2018	30.21				29.98	275.70	0.23
	10/1/2018	33.57				DRY	NC	NC
	10/22/2018	30.20				30.03	275.65	0.17
	11/26/2018	30.19				29.43	276.25	0.76
	12/19/2018	30.24				29.20	276.48	1.04
	12/31/2018	30.18				29.31	276.37	0.87
	1/28/2019	30.19				29.23	276.45	0.96
	2/25/2019	30.23				28.88	276.80	1.35
	3/18/2019	30.20				29.25	276.43	0.95
	3/20/2019	30.10				28.13	277.55	1.97
	4/15/2019	30.21				29.36	276.32	0.85
	5/6/2019	30.20				29.70	275.98	0.50
	5/8/2019	30.20				28.20	277.48	2.00
	5/20/2019	30.21				29.52	276.16	0.69
	6/17/2019	30.20				29.92	275.76	0.28
	6/19/2019	30.22				29.89	275.79	0.33
	7/22/2019	30.22				29.93	275.75	0.29
8/26/2019	30.22	29.97	275.71	0.25				
9/23/2019	30.20	29.99	275.69	0.21				
10/2/2019	29.90	DRY	NC	NC				
11/21/2019	30.20	29.64	276.04	0.56				
12/16/2019	30.22	29.61	276.07	0.61				
12/18/2019	30.29	29.60	276.08	0.69				
1/22/2020	30.18	28.80	276.88	1.38				
3/5/2020	30.19	DRY	NC	NC				
3/23/2020	30.21	29.27	276.41	0.94				
4/27/2020	30.22	DRY	NC	NC				
5/26/2020	30.23	DRY	NC	NC				
6/17/2020	30.20	DRY	NC	NC				
7/20/2020	30.19	29.80	275.88	0.39				
8/17/2020	30.19	DRY	NC	NC				
9/23/2020	30.20	DRY	NC	NC				
9/30/2020	30.21	DRY	NC	NC				
10/26/2020	30.23	30.03	275.65	0.20				
11/30/2020	30.23	28.90	276.78	1.33				
12/21/2020	30.20	29.57	276.11	0.63				
1/18/2021	30.21	28.94	276.74	1.27				
4/5/2021	30.21	29.35	276.33	0.86				
5/3/2021	30.28	DRY	NC	NC				
5/24/2021	30.23	DRY	NC	NC				
6/22/2021	30.21	29.94	275.74	0.27				

Table 1
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Well ID	Date Measured	Total Depth ^a (ft-TOC)	TOC Elevation ^b (ft-NAVD88)	Approximate Screen Interval (ft-bgs)	Approximate Screen Interval Elevation (ft-NAVD88)	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-NAVD88)	Thickness of Water Column (ft)
MW-6	4/23/2015	26.55	302.78	11 - 26	291.78 - 276.78	16.51	286.27	10.04
	11/30/2015	NA				16.17	286.61	10.38
	12/14/2015	26.56				12.92	289.86	13.64
	1/25/2016	26.74				13.59	289.19	13.15
	2/22/2016	26.77				12.89	289.89	13.88
	3/21/2016	26.65				13.02	289.76	13.63
	4/25/2016	26.73				DRY	NC	NC
	5/23/2016	26.84				DRY	NC	NC
	6/23/2016	26.78				19.17	283.61	7.61
	6/27/2016	26.70				18.52	284.26	8.18
	8/8/2016	26.81				23.31	279.47	3.50
	8/30/2016	27.06				25.91	276.87	1.15
	9/26/2016	26.63				16.67	286.11	9.96
	10/24/2016	26.55				12.94	289.84	13.61
	11/21/2016	26.76				15.20	287.58	11.56
	12/21/2016	26.62				12.81	289.97	13.81
	1/23/2017	26.55				13.25	289.53	13.30
	3/6/2017	26.48				12.81	289.97	13.67
	3/21/2017	26.17				12.76	290.02	13.41
	3/29/2017	26.75				12.55	290.23	14.20
	6/21/2017	26.64				15.63	287.15	11.01
	6/26/2017	26.73				18.54	284.24	8.19
	7/31/2017	26.71				26.14	276.64	0.57
	8/28/2017	26.73				26.15	276.63	0.58
	9/25/2017	26.72				21.48	281.30	5.24
	9/27/2017	26.73				22.32	280.46	4.41
	10/30/2017	26.72				13.45	289.33	13.27
	11/20/2017	26.72				12.86	289.92	13.86
	12/18/2017	26.72				12.62	290.16	14.10
	1/4/2018	26.72				12.89	289.89	13.83
	1/22/2018	26.71				13.01	289.77	13.70
	2/26/2018	26.72				12.90	289.88	13.82
	3/26/2018	26.73				12.80	289.98	13.93
	4/5/2018	26.70				12.45	290.33	14.25
	4/23/2018	26.72				12.73	290.05	13.99
	5/21/2018	26.72				18.16	284.62	8.56
	6/18/2018	26.72				21.13	281.65	5.59
	6/27/2018	26.68				23.29	279.49	3.39
	7/30/2018	26.68				22.86	279.92	3.82
	8/27/2018	26.67				25.13	277.65	1.54
	9/24/2018	26.72				13.35	289.43	13.37
	10/1/2018	26.72				14.13	288.65	12.59
	10/22/2018	26.70				17.51	285.27	9.19
	11/26/2018	26.71				12.15	290.63	14.56
	12/19/2018	26.70				12.34	290.44	14.36
	12/31/2018	26.69				12.28	290.50	14.41
	1/28/2019	26.70				12.78	290.00	13.92
	2/25/2019	26.72				12.19	290.59	14.53
	3/18/2019	26.70				12.61	290.17	14.09
	3/20/2019	26.62				12.52	290.26	14.10
4/15/2019	26.69	11.91	290.87	14.78				
5/6/2019	26.68	12.91	289.87	13.77				
5/8/2019	26.69	13.36	289.42	13.33				
5/20/2019	26.68	13.33	289.45	13.35				
6/17/2019	26.70	19.63	283.15	7.07				
6/19/2019	26.70	23.69	279.09	3.01				
7/22/2019	26.70	15.32	287.46	11.38				
8/26/2019	26.69	23.61	279.17	3.08				
9/23/2019	26.71	23.03	279.75	3.68				
10/2/2019	26.68	14.37	288.41	12.31				
11/21/2019	26.72	12.40	290.38	14.32				
12/16/2019	26.71	12.53	290.25	14.18				
12/18/2019	26.73	12.35	290.43	14.38				
1/22/2020	26.71	12.01	290.77	14.70				
3/5/2020	26.58	12.00	290.78	14.58				
3/23/2020	26.74	13.47	289.31	13.27				
4/27/2020	26.70	DRY	NC	NC				
5/26/2020	26.73	DRY	NC	NC				
6/17/2020	26.73	11.87	290.91	14.86				
7/20/2020	26.71	15.62	287.16	11.09				
8/17/2020	26.69	21.16	281.62	5.53				
9/23/2020	26.69	25.91	276.87	0.78				
9/30/2020	26.70	13.03	289.75	13.67				
10/26/2020	26.71	12.74	290.04	13.97				
11/30/2020	26.72	12.64	290.14	14.08				
12/21/2020	26.72	11.85	290.93	14.87				
1/18/2021	26.73	12.74	290.04	13.99				
4/5/2021	26.83	13.47	289.31	13.36				
5/3/2021	26.71	19.13	283.65	7.58				
5/24/2021	26.69	16.30	286.48	10.39				
6/22/2021	26.69	16.63	286.15	10.06				

Table 1
Monitoring Well Groundwater Elevation Data Summary
Laurel Station
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Well ID	Date Measured	Total Depth ^a (ft-TOC)	TOC Elevation ^b (ft-NAVD88)	Approximate Screen Interval (ft-bgs)	Approximate Screen Interval Elevation (ft-NAVD88)	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-NAVD88)	Thickness of Water Column (ft)
MW-8	4/23/2015	37.10	302.24	23 - 38	279.24 - 264.24	DRY	NC	NC
	12/14/2015	37.08				DRY	NC	NC
	1/25/2016	37.28				DRY	NC	NC
	2/22/2016	37.13				36.91	265.33	0.22
	3/21/2016	37.45				37.00	265.24	0.45
	4/25/2016	37.41				DRY	NC	NC
	5/23/2016	37.55				37.05	265.19	0.50
	6/23/2016	37.50				37.04	265.20	0.46
	6/27/2016	37.20				DRY	NC	NC
	8/8/2016	37.68				37.08	265.16	0.60
	8/30/2016	37.96				DRY	NC	NC
	9/26/2016	37.80				37.10	265.14	0.70
	10/24/2016	37.60				37.08	265.16	0.52
	11/21/2016	37.40				37.15	265.09	0.25
	12/21/2016	37.14				37.08	265.16	0.06
	1/23/2017	37.59				36.97	265.27	0.62
	3/6/2017	37.15				DRY	NC	NC
	3/21/2017	31.42				31.05	271.19	0.37
	3/29/2017	37.40				DRY	NC	NC
	6/21/2017	37.40				DRY	NC	NC
	6/26/2017	37.03				DRY	NC	NC
	7/31/2017	37.28				37.05	265.19	0.23
	8/28/2017	37.29				37.09	265.15	0.20
	9/25/2017	37.26				37.09	265.15	0.17
	9/27/2017	37.08				DRY	NC	NC
	10/30/2017	37.29				37.08	265.16	0.21
	11/20/2017	37.27				33.83	268.41	3.44
	12/18/2017	37.30				37.08	265.16	0.22
	1/4/2018	37.26				37.08	265.16	0.18
	1/22/2018	37.26				37.00	265.24	0.26
	2/26/2018	37.29				37.02	265.22	0.27
	3/26/2018	37.27				37.05	265.19	0.22
	4/5/2018	37.21				37.00	265.24	0.21
	4/23/2018	37.30				37.03	265.21	0.27
	5/21/2018	37.28				37.05	265.19	0.23
	6/18/2018	37.26				37.04	265.20	0.22
	6/27/2018	37.24				37.05	265.19	0.19
	7/30/2018	37.29				37.07	265.17	0.22
	8/27/2018	37.28				37.07	265.17	0.21
	9/24/2018	37.26				37.07	265.17	0.19
	10/1/2018	37.12				DRY	NC	NC
	10/22/2018	37.27				37.08	265.16	0.19
	11/26/2018	37.28				37.08	265.16	0.20
	12/19/2018	37.26				DRY	NC	NC
	12/31/2018	37.27				37.09	265.15	0.18
	1/28/2019	37.26				37.03	265.21	0.23
	2/25/2019	37.31				37.05	265.19	0.26
	3/18/2019	37.27				37.05	265.19	0.22
	3/20/2019	37.18				37.00	265.24	0.18
	4/15/2019	37.26				37.05	265.19	0.21
	5/6/2019	37.25				37.03	265.21	0.22
	5/8/2019	37.30				37.05	265.19	0.25
	5/20/2019	37.30				37.05	265.19	0.25
	6/17/2019	37.28				37.04	265.20	0.24
	6/19/2019	37.29				37.08	265.16	0.21
	7/22/2019	37.32				37.09	265.15	0.23
	8/26/2019	37.28				37.06	265.18	0.22
	9/23/2019	37.29				37.08	265.16	0.21
	10/2/2019	37.30				DRY	NC	NC
	11/21/2019	37.28				DRY	NC	NC
12/16/2019	37.33	37.06	265.18	0.27				
12/18/2019	37.25	DRY	NC	NC				
1/22/2020	37.29	DRY	NC	NC				
3/5/2020	37.10	36.99	265.25	0.11				
3/23/2020	37.29	37.01	265.23	0.28				
4/27/2020	37.30	DRY	NC	NC				
5/26/2020	37.27	DRY	NC	NC				
6/17/2020	37.33	DRY	NC	NC				
7/20/2020	37.27	DRY	NC	NC				
8/17/2020	37.26	DRY	NC	NC				
9/23/2020	37.28	DRY	NC	NC				
9/30/2020	37.25	DRY	NC	NC				
10/26/2020	37.26	37.15	265.09	0.11				
11/30/2020	37.28	36.29	265.95	0.99				
12/21/2020	37.30	37.06	265.18	0.24				
1/18/2021	37.32	DRY	NC	NC				
4/5/2021	32.43	DRY	NC	NC				
5/3/2021	37.33	DRY	NC	NC				
5/24/2021	37.27	DRY	NC	NC				
6/22/2021	37.30	37.05	265.19	0.25				

Table 1
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Well ID	Date Measured	Total Depth ^a (ft-TOC)	TOC Elevation ^b (ft-NAVD88)	Approximate Screen Interval (ft-bgs)	Approximate Screen Interval Elevation (ft-NAVD88)	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-NAVD88)	Thickness of Water Column (ft)
MW-11 ^c	4/23/2015	48.15	321.31	25 - 45	293.31 - 273.31	DRY	NC	NC
	11/30/2015	NA				47.54	273.77	0.61
	12/14/2015	48.17				47.21	274.10	0.96
	1/25/2016 *	46.93				DRY	NC	NC
	2/22/2016	48.21				46.86	274.45	1.35
	3/21/2016	48.52				46.96	274.35	1.56
	4/25/2016	48.69				DRY	NC	NC
	5/23/2016	48.73				DRY	NC	NC
	6/27/2016	48.30				DRY	NC	NC
	8/8/2016	48.02				DRY	NC	NC
	8/30/2016	48.80				48.48	272.83	0.32
	10/24/2016	48.95				48.00	273.31	0.95
	9/26/2016 *	38.00				DRY	NC	NC
	11/21/2016	48.42				47.22	274.09	1.20
	12/21/2016	48.60				47.60	273.71	1.00
	1/23/2017	48.90				47.23	274.08	1.67
	3/6/2017	48.24				46.91	274.40	1.33
	3/21/2017	48.48				46.85	274.46	1.63
	3/29/2017	48.41				47.05	274.26	1.36
	6/21/2017	48.30				47.98	273.33	0.32
	6/26/2017	48.58				48.08	273.23	0.50
	7/31/2017	48.40				48.08	273.23	0.32
	8/28/2017	48.36				48.09	273.22	0.27
	9/25/2017	48.38				48.08	273.23	0.30
	9/27/2017	48.18				48.09	273.22	0.09
	10/30/2017	48.42				48.10	273.21	0.32
	11/20/2017	48.41				47.61	273.70	0.80
	12/18/2017	48.39				48.07	273.24	0.32
	1/4/2018	48.45				47.90	273.41	0.55
	1/22/2018	48.45				47.36	273.95	1.09
	2/26/2018	48.42				47.46	273.85	0.96
	3/26/2018	48.40				47.41	273.90	0.99
	4/5/2018	48.41				47.23	274.08	1.18
	4/23/2018	48.38				47.01	274.30	1.37
	5/21/2018	48.41				48.08	273.23	0.33
	6/18/2018	48.43				48.09	273.22	0.34
	6/27/2018	48.35				48.10	273.21	0.25
	7/30/2018	48.37				48.10	273.21	0.27
	8/27/2018	48.37				48.10	273.21	0.27
	9/24/2018	48.47				48.10	273.21	0.37
	10/1/2018	48.31				DRY	NC	NC
	10/22/2018	48.41				48.11	273.20	0.30
	11/26/2018	48.42				47.61	273.70	0.81
	12/19/2018	48.35				47.55	273.76	0.80
	12/31/2018	48.42				47.38	273.93	1.04
	1/28/2019	48.41				47.18	274.13	1.23
	2/25/2019	48.38				47.15	274.16	1.23
	3/18/2019	48.43				47.16	274.15	1.27
	3/20/2019	48.30				47.08	274.23	1.22
	4/15/2019	48.41				47.06	274.25	1.35
	5/20/2019	48.39				48.08	273.23	0.31
	6/17/2019	48.38				48.07	273.24	0.31
6/19/2019	48.40	48.09	273.22	0.31				
7/22/2019	48.39	48.12	273.19	0.27				
8/26/2019	48.45	48.09	273.22	0.36				
9/23/2019	48.39	48.11	273.20	0.28				
10/2/2019	48.37	48.10	273.21	0.27				
11/21/2019	48.23	47.65	273.66	0.58				
12/16/2019	48.41	47.67	273.64	0.74				
12/18/2019	48.38	47.60	273.71	0.78				
1/22/2020	48.39	41.38	279.93	7.01				
3/5/2020	48.21	DRY	NC	NC				
3/23/2020	48.37	48.10	273.21	0.27				
4/27/2020	48.41	DRY	NC	NC				
5/26/2020	48.42	47.38	273.93	1.04				
6/17/2020	48.39	46.97	274.34	1.42				
7/20/2020	48.38	DRY	NC	NC				
8/17/2020	48.39	DRY	NC	NC				
9/23/2020	48.36	DRY	NC	NC				
9/30/2020	48.47	DRY	NC	NC				
10/26/2020	48.42	48.14	273.17	0.28				
11/30/2020	48.50	47.15	274.16	1.35				
12/21/2020	48.50	47.06	274.25	1.44				
1/18/2021	48.49	47.30	274.01	1.19				
4/5/2021	48.42	DRY	NC	NC				
5/3/2021	48.45	DRY	NC	NC				
5/24/2021	48.50	DRY	NC	NC				
6/22/2021	48.43	48.10	273.21	0.33				

Table 1
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Well ID	Date Measured	Total Depth ^a (ft-TOC)	TOC Elevation ^b (ft-NAVD88)	Approximate Screen Interval (ft-bgs)	Approximate Screen Interval Elevation (ft-NAVD88)	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-NAVD88)	Thickness of Water Column (ft)
MW-12 ^c	4/23/2015	51.60	323.53	29 - 49	291.53 - 271.53	DRY	NC	NC
	11/30/2015	NA				50.69	272.84	0.91
	12/14/2015	51.80				51.20	272.33	0.60
	1/25/2016	52.12				DRY	NC	NC
	2/22/2016	51.99				DRY	NC	NC
	3/21/2016	52.20				51.74	271.79	0.46
	4/25/2016	52.12				DRY	NC	NC
	5/23/2016	52.22				DRY	NC	NC
	6/27/2016	51.75				DRY	NC	NC
	8/8/2016	51.72				DRY	NC	NC
	8/30/2016	52.55				DRY	NC	NC
	9/26/2016	52.50				DRY	NC	NC
	10/24/2016	52.50				DRY	NC	NC
	11/21/2016	51.89				51.80	271.73	0.09
	12/21/2016	52.67				51.77	271.76	0.90
	1/23/2017	52.25				DRY	NC	NC
	3/6/2017	51.69				DRY	NC	NC
	3/21/2017	52.45				DRY	NC	NC
	3/29/2017	51.89				DRY	NC	NC
	6/21/2017	51.70				DRY	NC	NC
	6/26/2017	51.83				DRY	NC	NC
	7/31/2017	51.83				DRY	NC	NC
	8/28/2017	51.82				DRY	NC	NC
	9/25/2017	51.87				DRY	NC	NC
	9/27/2017	51.65				DRY	NC	NC
	10/30/2017	51.92				DRY	NC	NC
	11/20/2017	51.89				DRY	NC	NC
	12/18/2017	51.86				DRY	NC	NC
	1/4/2018	51.86				51.60	271.93	0.26
	1/22/2018	51.82				DRY	NC	NC
	2/26/2018	51.90				DRY	NC	NC
	3/26/2018	51.86				DRY	NC	NC
	4/5/2018	51.85				DRY	NC	NC
	4/23/2018	51.87				DRY	NC	NC
	5/21/2018	51.88				DRY	NC	NC
	6/18/2018	51.90				DRY	NC	NC
	6/27/2018	51.83				DRY	NC	NC
	7/30/2018	51.88				DRY	NC	NC
	8/27/2018	51.83				DRY	NC	NC
	9/24/2018	51.94				DRY	NC	NC
	10/1/2018	51.85				DRY	NC	NC
	10/22/2018	51.86				DRY	NC	NC
	11/26/2018	51.84				DRY	NC	NC
	12/19/2018	51.85				DRY	NC	NC
	12/31/2018	51.90				DRY	NC	NC
	1/28/2019	51.88				DRY	NC	NC
	2/25/2019	51.87				DRY	NC	NC
	3/18/2019	51.90				DRY	NC	NC
	3/20/2019	51.76				DRY	NC	NC
	4/15/2019	51.87				DRY	NC	NC
	5/20/2019	51.89				DRY	NC	NC
	6/17/2019	51.90				DRY	NC	NC
6/19/2019	51.87	DRY	NC	NC				
7/22/2019	51.88	DRY	NC	NC				
8/26/2019	51.88	DRY	NC	NC				
9/23/2019	51.81	DRY	NC	NC				
10/2/2019	51.89	DRY	NC	NC				
11/21/2019	51.86	DRY	NC	NC				
12/16/2019	51.88	DRY	NC	NC				
12/18/2019	51.86	DRY	NC	NC				
1/22/2020	57.85	DRY	NC	NC				
3/5/2020	51.50	DRY	NC	NC				
3/23/2020	50.68	DRY	NC	NC				
4/27/2020	51.84	DRY	NC	NC				
5/26/2020	51.88	DRY	NC	NC				
6/17/2020	51.86	DRY	NC	NC				
7/20/2020	51.95	DRY	NC	NC				
8/17/2020	51.90	DRY	NC	NC				
9/23/2020	51.91	DRY	NC	NC				
9/30/2020	51.89	DRY	NC	NC				
10/26/2020	51.92	DRY	NC	NC				
11/30/2020	51.63	DRY	NC	NC				
12/21/2020	51.85	DRY	NC	NC				
1/18/2021	51.99	DRY	NC	NC				
4/5/2021	51.89	DRY	NC	NC				
5/3/2021	51.97	DRY	NC	NC				
5/24/2021	51.90	DRY	NC	NC				
6/22/2021	51.88	DRY	NC	NC				

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Well ID	Date Measured	Total Depth ^a (ft-TOC)	TOC Elevation ^b (ft-NAVD88)	Approximate Screen Interval (ft-bgs)	Approximate Screen Interval Elevation (ft-NAVD88)	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-NAVD88)	Thickness of Water Column (ft)
MW-13	4/23/2015	62.45	323.20	39 - 59	281.20 - 261.20	DRY	NC	NC
	11/30/2015	NA				63.48	NC	NC
	12/14/2015	62.62				DRY	NC	NC
	1/25/2016	63.21				62.45	260.75	0.76
	2/22/2016	62.56				DRY	NC	NC
	3/21/2016	63.06				DRY	NC	NC
	4/25/2016	63.09				DRY	NC	NC
	5/23/2016	63.11				DRY	NC	NC
	6/27/2016	62.60				DRY	NC	NC
	8/8/2016	62.50				DRY	NC	NC
	8/30/2016	63.29				DRY	NC	NC
	9/26/2016	63.91				DRY	NC	NC
	10/24/2016 *	63.70				DRY	NC	NC
	11/21/2016	63.00				62.52	260.68	0.48
	12/21/2016	62.90				DRY	NC	NC
	1/23/2017	63.36				DRY	NC	NC
	3/6/2017	62.50				DRY	NC	NC
	3/21/2017	63.47				DRY	NC	NC
	3/29/2017	62.68				DRY	NC	NC
	6/21/2017	62.60				DRY	NC	NC
	6/26/2017	63.08				DRY	NC	NC
	7/31/2017	62.70				62.57	260.63	0.13
	8/28/2017	62.68				62.58	260.62	0.10
	9/25/2017	62.68				62.61	260.59	0.07
	9/27/2017	62.54				DRY	NC	NC
	10/30/2017	62.66				62.62	260.58	0.04
	11/20/2017	62.69				62.61	260.59	0.08
	12/18/2017	62.76				62.61	260.59	0.15
	1/4/2018	62.69				DRY	NC	NC
	1/22/2018	62.65				DRY	NC	NC
	2/26/2018	62.69				DRY	NC	NC
	3/26/2018	62.69				DRY	NC	NC
	4/5/2018	62.68				62.62	260.58	0.06
	4/23/2018	62.68				DRY	NC	NC
	5/21/2018	62.68				DRY	NC	NC
	6/18/2018	62.68				DRY	NC	NC
	6/27/2018	62.65				DRY	NC	NC
	7/30/2018	62.67				DRY	NC	NC
	8/27/2018	62.69				DRY	NC	NC
	9/24/2018	62.71				DRY	NC	NC
	10/1/2018	62.67				DRY	NC	NC
	10/22/2018	62.71				DRY	NC	NC
	11/26/2018	62.67				DRY	NC	NC
	12/19/2018	62.79				DRY	NC	NC
	12/31/2018	62.79				DRY	NC	NC
	1/28/2019	62.69				DRY	NC	NC
	2/25/2019	62.68				DRY	NC	NC
	3/18/2019	62.75				DRY	NC	NC
	3/20/2019	63.26				DRY	NC	NC
	4/15/2019	62.67				DRY	NC	NC
	5/20/2019	62.66				DRY	NC	NC
	6/17/2019	62.66				DRY	NC	NC
	6/19/2019	62.67				DRY	NC	NC
	7/22/2019	62.67				DRY	NC	NC
	8/26/2019	62.68				DRY	NC	NC
	9/23/2019	62.65				DRY	NC	NC
	10/2/2019	60.65				DRY	NC	NC
11/21/2019	62.68	DRY	NC	NC				
12/16/2019	62.72	DRY	NC	NC				
12/18/2019	62.67	DRY	NC	NC				
1/22/2020	63.65	DRY	NC	NC				
3/5/2020	62.62	DRY	NC	NC				
3/23/2020	62.69	DRY	NC	NC				
4/27/2020	62.63	DRY	NC	NC				
5/26/2020	62.69	DRY	NC	NC				
6/17/2020	62.69	DRY	NC	NC				
7/20/2020	62.65	DRY	NC	NC				
8/17/2020	62.68	DRY	NC	NC				
9/23/2020	62.66	DRY	NC	NC				
9/30/2020	62.68	DRY	NC	NC				
10/26/2020	62.74	DRY	NC	NC				
11/30/2020	62.69	DRY	NC	NC				
12/21/2020	62.71	DRY	NC	NC				
1/18/2021	62.91	DRY	NC	NC				
4/5/2021	62.72	DRY	NC	NC				
5/3/2021	62.89	DRY	NC	NC				
5/24/2021	62.84	DRY	NC	NC				
6/22/2021	62.72	DRY	NC	NC				

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Well ID	Date Measured	Total Depth ^a (ft-TOC)	TOC Elevation ^b (ft-NAVD88)	Approximate Screen Interval (ft-bgs)	Approximate Screen Interval Elevation (ft-NAVD88)	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-NAVD88)	Thickness of Water Column (ft)
MW-14	4/23/2015	50.75	316.77	30 - 50	286.77 - 266.77	DRY	NC	NC
	11/30/2015	NA				50.72	266.05	0.03
	12/14/2015	50.94				DRY	NC	NC
	1/25/2016	51.37				DRY	NC	NC
	2/22/2016	51.24				50.77	266.00	0.47
	3/21/2016	51.46				50.73	266.04	0.73
	4/25/2016	51.46				DRY	NC	NC
	5/23/2016	51.12				DRY	NC	NC
	6/27/2016	50.90				DRY	NC	NC
	8/8/2016	51.30				DRY	NC	NC
	8/30/2016 *	52.00				DRY	NC	NC
	9/26/2016	51.80				50.72	266.05	1.08
	10/24/2016	51.65				46.90	269.87	4.75
	11/21/2016	51.20				50.85	265.92	0.35
	12/21/2016	51.30				51.23	265.54	0.07
	1/23/2017	51.50				50.61	266.16	0.89
	3/6/2017	50.82				50.69	266.08	0.13
	3/21/2017	51.35				50.78	265.99	0.57
	3/29/2017	50.89				DRY	NC	NC
	6/21/2017	50.65				DRY	NC	NC
	6/26/2017	50.98				50.77	266.00	0.21
	7/31/2017	50.96				50.76	266.01	0.20
	8/28/2017	50.96				50.78	265.99	0.18
	9/25/2017	50.97				50.83	265.94	0.14
	9/27/2017	50.80				DRY	NC	NC
	10/30/2017	51.02				50.82	265.95	0.20
	11/20/2017	50.99				50.81	265.96	0.18
	12/18/2017	51.02				50.85	265.92	0.17
	1/4/2018	51.01				50.88	265.89	0.13
	1/22/2018	51.02				50.87	265.90	0.15
	2/26/2018	51.01				50.76	266.01	0.25
	3/26/2018	51.01				50.78	265.99	0.23
	4/5/2018	50.98				50.78	265.99	0.20
	4/23/2018	51.01				50.73	266.04	0.28
	5/21/2018	51.02				50.75	266.02	0.27
	6/18/2018	51.02				DRY	NC	NC
	6/27/2018	50.95				50.75	266.02	0.20
	7/30/2018	50.98				50.77	266.00	0.21
	8/27/2018	50.98				50.79	265.98	0.19
	9/24/2018	51.01				50.77	266.00	0.24
	10/1/2018	50.97				DRY	NC	NC
	10/22/2018	51.01				DRY	NC	NC
	11/26/2018	50.98				50.87	265.90	0.11
	12/19/2018	51.10				DRY	NC	NC
	12/31/2018	51.00				50.84	265.93	0.16
	1/28/2019	51.00				50.84	265.93	0.16
	2/25/2019	51.01				50.75	266.02	0.26
	3/18/2019	51.04				50.78	265.99	0.26
	3/20/2019	50.87				DRY	NC	NC
	4/15/2019	51.01				50.77	266.00	0.24
5/20/2019	50.98	DRY	NC	NC				
6/17/2019	51.00	50.79	265.98	0.21				
6/19/2019	50.98	50.79	265.98	0.19				
7/22/2019	51.00	50.80	265.97	0.20				
8/26/2019	51.02	50.82	265.95	0.20				
9/23/2019	51.03	50.80	265.97	0.23				
10/2/2019	50.98	50.80	265.97	0.18				
11/21/2019	50.99	DRY	NC	NC				
12/16/2019	51.04	DRY	NC	NC				
12/18/2019	51.00	DRY	NC	NC				
1/22/2020	50.98	50.72	266.05	0.26				
3/5/2020	50.80	50.70	266.07	0.10				
3/23/2020	50.99	50.75	266.02	0.24				
4/27/2020	51.04	DRY	NC	NC				
5/26/2020	50.98	DRY	NC	NC				
6/17/2020	51.02	DRY	NC	NC				
7/20/2020	51.03	DRY	NC	NC				
8/17/2020	51.01	DRY	NC	NC				
9/23/2020	51.02	DRY	NC	NC				
9/30/2020	51.00	DRY	NC	NC				
10/26/2020	51.01	50.83	265.94	0.18				
11/30/2020	51.13	DRY	NC	NC				
12/21/2020	51.03	DRY	NC	NC				
1/18/2021	51.05	DRY	NC	NC				
4/5/2021	50.95	DRY	NC	NC				
5/3/2021	51.10	DRY	NC	NC				
5/24/2021	51.08	DRY	NC	NC				
6/22/2021	51.00	50.80	265.97	0.20				

Table 1
Monitoring Well Groundwater Elevation Data Summary
Laurel Station
Bellingham, Washington

Well ID	Date Measured	Total Depth ^a (ft-TOC)	TOC Elevation ^b (ft-NAVD88)	Approximate Screen Interval (ft-bgs)	Approximate Screen Interval Elevation (ft-NAVD88)	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-NAVD88)	Thickness of Water Column (ft)
MW-15	4/23/2015	34.25	303.12	25 - 35	278.12 - 268.12	DRY	NC	NC
	10/26/2015	33.76				33.72	269.40	0.04
	11/30/2015	NA				33.82	269.30	NC
	12/14/2015	34.24				33.79	269.33	0.45
	1/25/2016	35.15				33.80	269.32	1.35
	2/22/2016 *	33.39				33.19	269.93	0.20
	3/21/2016	34.82				33.78	269.34	1.04
	4/25/2016	34.71				DRY	NC	NC
	5/23/2016	34.80				DRY	NC	NC
	6/27/2016 *	33.52				DRY	NC	NC
	8/8/2016	34.31				33.74	269.38	0.57
	8/30/2016 *	35.26				33.74	269.38	1.52
	9/26/2016 *	36.00				DRY	NC	NC
	10/24/2016	35.15				33.63	269.49	1.52
	11/21/2016	33.80				33.73	269.39	0.07
	12/21/2016	34.39				33.72	269.40	0.67
	1/23/2017	35.25				33.70	269.42	1.55
	3/6/2017	34.08				33.74	269.38	0.34
	3/21/2017	35.30				DRY	NC	NC
	3/29/2017	34.37				DRY	NC	NC
	6/21/2017	34.31				DRY	NC	NC
	6/26/2017	34.67				33.75	269.37	0.92
	7/31/2017	34.26				33.79	269.33	0.47
	8/28/2017	34.31				33.77	269.35	0.54
	9/25/2017	34.28				33.76	269.36	0.52
	9/27/2017	34.07				33.77	269.35	0.30
	10/30/2017	34.28				33.78	269.34	0.50
	11/20/2017	34.24				33.79	269.33	0.45
	12/18/2017	34.31				33.76	269.36	0.55
	1/4/2018	34.36				33.77	269.35	0.59
	1/22/2018	34.38				33.82	269.30	0.56
	2/26/2018	34.28				33.82	269.30	0.46
	3/26/2018	34.32				33.91	269.21	0.41
	4/5/2018	34.35				33.65	269.47	0.70
	4/23/2018	34.40				33.79	269.33	0.61
	5/21/2018	34.39				33.79	269.33	0.60
	6/18/2018	34.38				33.74	269.38	0.64
	6/27/2018	34.43				33.77	269.35	0.66
	7/30/2018	34.46				33.73	269.39	0.73
	8/27/2018	34.32				33.79	269.33	0.53
	9/24/2018	34.38				33.78	269.34	0.60
	10/1/2018	34.35				DRY	NC	NC
	10/22/2018	34.39				33.79	269.33	0.60
	11/26/2018	34.34				33.79	269.33	0.55
	12/19/2018	33.82				DRY	NC	NC
	12/31/2018	34.34				33.81	269.31	0.53
	1/28/2019	34.32				33.79	269.33	0.53
	2/25/2019	34.35				33.79	269.33	0.56
	3/18/2019	34.37				33.80	269.32	0.57
	3/20/2019	34.16				DRY	NC	NC
4/15/2019	34.34	33.77	269.35	0.57				
5/6/2019	34.31	33.74	269.38	0.57				
5/8/2019	34.20	33.70	269.42	0.50				
5/20/2019	34.37	33.79	269.33	0.58				
6/17/2019	34.32	34.13	268.99	0.19				
6/19/2019	34.35	33.80	269.32	0.55				
7/22/2019	34.35	33.81	269.31	0.54				
8/26/2019	34.31	33.80	269.32	0.51				
9/23/2019	34.41	33.81	269.31	0.60				
10/2/2019	34.26	33.81	269.31	0.45				
11/21/2019	34.33	33.81	269.31	0.52				
12/16/2019	34.28	33.82	269.30	0.46				
12/18/2019	34.30	33.90	269.22	0.40				
1/22/2020	34.33	33.80	269.32	0.53				
3/5/2020	34.30	33.81	269.31	0.49				
3/23/2020	34.31	33.79	269.33	0.52				
4/27/2020	34.32	DRY	NC	NC				
5/26/2020	34.33	DRY	NC	NC				
6/17/2020	34.30	DRY	NC	NC				
7/20/2020	34.26	33.73	269.39	0.53				
8/17/2020	34.26	DRY	NC	NC				
9/23/2020	34.26	DRY	NC	NC				
9/30/2020	34.30	33.80	269.32	0.50				
10/26/2020	34.30	33.80	269.32	0.50				
11/30/2020	34.45	33.80	269.32	0.65				
12/21/2020	34.37	DRY	NC	NC				
1/18/2021	34.24	DRY	NC	NC				
4/5/2021	34.40	33.82	269.30	0.58				
5/3/2021	34.33	33.81	269.31	0.52				
5/24/2021	34.35	DRY	NC	NC				
6/22/2021	34.30	33.76	269.36	0.54				

Table 1
Monitoring Well Groundwater Elevation Data Summary
Laurel Station
Bellingham, Washington

Well ID	Date Measured	Total Depth ^a (ft-TOC)	TOC Elevation ^b (ft-NAVD88)	Approximate Screen Interval (ft-bgs)	Approximate Screen Interval Elevation (ft-NAVD88)	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-NAVD88)	Thickness of Water Column (ft)
MW-16	4/23/2015	34.82	303.91	25 - 35	278.91 - 268.91	DRY	NC	NC
	10/26/2015	34.91				34.80	269.11	0.11
	12/14/2015	34.83				DRY	NC	NC
	1/25/2016	35.73				DRY	NC	NC
	2/22/2016	35.72				34.97	268.94	0.75
	3/21/2016	35.61				33.81	270.10	1.80
	4/25/2016	35.41				DRY	NC	NC
	5/23/2016	35.58				DRY	NC	NC
	6/27/2016	34.70				DRY	NC	NC
	8/8/2016	35.50				34.73	269.18	0.77
	8/30/2016 *	36.23				34.74	269.17	1.49
	9/26/2016 *	36.50				DRY	NC	NC
	10/24/2016 *	36.65				DRY	NC	NC
	11/21/2016	35.46				34.60	269.31	0.86
	12/21/2016 *	36.10				DRY	NC	NC
	1/23/2017	35.70				34.36	269.55	1.34
	3/6/2017	34.61				34.02	269.89	0.59
	3/21/2017	35.73				DRY	NC	NC
	3/29/2017	34.87				DRY	NC	NC
	6/21/2017	34.69				DRY	NC	NC
	6/26/2017	34.72				DRY	NC	NC
	7/31/2017	35.95				34.75	269.16	1.20
	8/28/2017	34.85				34.74	269.17	0.11
	9/25/2017	34.93				34.68	269.23	0.25
	9/27/2017	34.77				DRY	NC	NC
	10/30/2017	34.97				34.92	268.99	0.05
	11/20/2017	34.71				DRY	NC	NC
	12/18/2017	35.01				34.88	269.03	0.13
	1/4/2018	35.45				34.72	269.19	0.73
	1/22/2018	34.81				34.64	269.27	0.17
	2/26/2018	34.89				34.74	269.17	0.15
	3/26/2018	34.84				DRY	NC	NC
	4/5/2018	34.83				34.55	269.36	0.28
	4/23/2018	35.02				DRY	NC	NC
	5/21/2018	34.84				34.71	269.20	0.13
	6/18/2018	34.87				34.68	269.23	0.19
	6/27/2018	35.05				34.92	268.99	0.13
	7/30/2018	34.96				DRY	NC	NC
	8/27/2018	34.83				DRY	NC	NC
	9/24/2018	34.82				DRY	NC	NC
	10/1/2018	34.91				DRY	NC	NC
	10/22/2018	34.99				DRY	NC	NC
	11/26/2018	34.83				DRY	NC	NC
	12/19/2018	34.82				DRY	NC	NC
	12/31/2018	34.70				DRY	NC	NC
	1/28/2019	34.88				DRY	NC	NC
	2/25/2019	Frozen					Frozen	
	3/18/2019	34.77				DRY	NC	NC
	3/20/2019	34.89				DRY	NC	NC
	4/15/2019	34.81				DRY	NC	NC
5/6/2019	34.80	34.76	269.15	0.04				
5/8/2019	34.80	DRY	NC	NC				
5/20/2019	34.97	33.79	270.12	1.18				
6/17/2019	34.88	34.77	269.14	0.11				
6/19/2019	34.82	DRY	NC	NC				
7/22/2019	34.95	DRY	NC	NC				
8/26/2019	35.01	34.91	269.00	0.10				
9/23/2019	34.87	DRY	NC	NC				
10/2/2019	35.55	DRY	NC	NC				
11/21/2019	34.84	DRY	NC	NC				
12/16/2019	35.01	DRY	NC	NC				
12/18/2019	35.14	34.72	269.19	0.42				
1/22/2020	35.00	34.82	269.09	0.18				
3/5/2020	34.74	DRY	NC	NC				
3/23/2020	34.99	34.85	269.06	0.14				
4/27/2020	35.11	DRY	NC	NC				
5/26/2020	35.05	DRY	NC	NC				
6/17/2020	35.08	DRY	NC	NC				
7/20/2020	35.04	DRY	NC	NC				
8/17/2020	35.07	DRY	NC	NC				
9/23/2020	35.05	DRY	NC	NC				
9/30/2020	34.74	DRY	NC	NC				
10/26/2020	35.02	34.92	268.99	0.10				
11/30/2020	34.89	DRY	NC	NC				
12/21/2020	34.86	DRY	NC	NC				
1/18/2021	34.94	DRY	NC	NC				
4/5/2021	34.87	DRY	NC	NC				
5/3/2021	34.87	DRY	NC	NC				
5/24/2021	34.95	DRY	NC	NC				
6/22/2021	34.79	DRY	NC	NC				

Table 1
Monitoring Well Groundwater Elevation Data Summary
Laurel Station
Bellingham, Washington

Well ID	Date Measured	Total Depth ^a (ft-TOC)	TOC Elevation ^b (ft-NAVD88)	Approximate Screen Interval (ft-bgs)	Approximate Screen Interval Elevation (ft-NAVD88)	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-NAVD88)	Thickness of Water Column (ft)
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^aTotal depth was measured by sounding the wells prior to sampling and may differ from total depth as installed.

^bSource of TOC elevations is Larry Steele & Associates. The TOC noted for DPE-4 is the elevation for the sampling port due to the DPE equipment installed in the well. For DPE-4, the measurement on April 23, 2015 was TOC for well casing (pre-dated DPE installation).

Notes:

Highlighted cells recorded a water column less than 0.7 foot. This is an indication that the well is dry and the water measured in the well is due to the collection of water in the bottom cap of the well.

Well is dry.

* - Indicates measured depth to bottom of well is very different than expected; impacts calculation of thickness of water column.

ft - foot

ft-TOC - feet below top of well casing

ft-NAVD88 - vertical elevation in feet relative to North American Vertical Datum of 1988

ft-bgs - feet below ground surface

NC - not calculated

NM - not measured

Table 2 - Groundwater Monitoring Results
 Laurel Station Cleanup Action
 Bellingham, Washington

Sample ID Sample Date	Groundwater Cleanup Levels	MW4			MW-6					
		4/23/15	5/8/19	4/23/15	4/23/15 (DUP)	12/14/15	3/29/16	3/29/16 (DUP)	6/27/16	6/27/16 (DUP)
Total Petroleum Hydrocarbons (TPH, mg/L)										
Gasoline-range (Gx)	0.8/1.0 ^a	0.25 U	NA	0.25 U	0.25 U	0.25 U	0.10 U	0.10 U	0.10 U	0.10 U
Diesel-range (Dx)	NE	0.94	4.11	0.10 U	0.13 U	0.12	0.10 U	0.10 U	0.11	0.10 U
Motor Oil-range	NE	0.47	2.33	0.20 U	0.25 U	0.22	0.20 U	0.20 U	0.20 U	0.20 U
Total TPH (Sum Dx, Oil-range, mg/L)	0.5	1.41	6.44	ND	ND	0.34	ND	ND	0.11	ND
BTEX (ug/L)										
Benzene	5	0.20 U	NA	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Toluene	640	0.20 U	NA	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Ethylbenzene	700	0.20 U	NA	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
m,p-Xylene	1,600	0.40 U	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
o-Xylene	1,600	0.20 U	NA	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Polycyclic Aromatic Hydrocarbons (ug/L)										
1-Methylnaphthalene	1.51	NA	NA	0.010 U	NA	0.010 U	0.10 U	0.10 U	0.10 U	0.10 U
2-Methylnaphthalene	32	NA	NA	0.019	NA	0.010 U	0.10 U	0.10 U	0.10 U	0.10 U
Acenaphthene	960	NA	NA	0.010 U	NA	0.010 U	0.10 U	0.10 U	0.10 U	0.10 U
Acenaphthylene	NE	NA	NA	0.010 U	NA	0.010 U	0.10 U	0.10 U	0.10 U	0.10 U
Anthracene	4,800	NA	NA	0.010 U	NA	0.010 U	0.10 U	0.10 U	0.10 U	0.10 U
Benzo(a)anthracene ¹	0.12	NA	NA	0.013	NA	0.010 U	0.10 U	0.10 U	0.10 U	0.10 U
Benzo(b)fluoranthene ¹	0.12	NA	NA	0.011	NA	0.010 U	NA	NA	NA	NA
Benzo(k)fluoranthene ¹	1.2	NA	NA	0.010 U	NA	0.010 U	NA	NA	NA	NA
Benzo(a)pyrene ¹	0.12	NA	NA	0.012	NA	0.010 U	0.10 U	0.10 U	0.10 U	0.10 U
Benzo(g,h,i)perylene	NE	NA	NA	0.010 U	NA	0.010 U	0.10 U	0.10 U	0.10 U	0.10 U
Chrysene ¹	12	NA	NA	0.015	NA	0.012	0.10 U	0.10 U	0.10 U	0.10 U
Dibenz(a,h)anthracene ¹	0.012	NA	NA	0.010 U	NA	0.010 U	0.10 U	0.10 U	0.10 U	0.10 U
Dibenzofuran	16	NA	NA	0.010 U	NA	0.010 U	0.10 U	0.10 U	0.10 U	0.10 U
Fluoranthene	640	NA	NA	0.017	NA	0.013	0.10 U	0.10 U	0.10 U	0.10 U
Fluorene	640	NA	NA	0.010 U	NA	0.010 U	0.10 U	0.10 U	0.10 U	0.10 U
Indeno(1,2,3-cd)pyrene ¹	0.12	NA	NA	0.010 U	NA	0.010 U	0.10 U	0.10 U	0.10 U	0.10 U
Naphthalene	160	NA	NA	0.010 U	NA	0.010 U	0.10 U	0.10 U	0.22	0.15
Phenanthrene	NE	NA	NA	0.010 U	NA	0.010	0.10 U	0.10 U	0.10 U	0.10 U
Pyrene	480	NA	NA	0.022	NA	0.014	0.10 U	0.10 U	0.10 U	0.10 U
Total Benzo(a)fluoranthenes ²	0.12	NA	NA	0.024 J	NA	0.020 U	0.10 U	0.10 U	0.10 U	0.10 U
TTEC	0.12	NA	NA	0.015	NA	0.00012	NC	NC	NC	NC

Table 2 - Groundwater Monitoring Results
 Laurel Station Cleanup Action
 Bellingham, Washington

Sample ID Sample Date	Groundwater Cleanup Levels	MW-6 (continued)								
		9/26/16	12/21/16	12/21/16 (DUP)	3/29/17	6/21/17	6/21/17 (DUP)	9/27/17	1/4/18	4/5/18
Total Petroleum Hydrocarbons (TPH, mg/L)										
Gasoline-range (Gx)	0.8/1.0 ^a	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U
Diesel-range (Dx)	NE	0.273	0.100 U	0.100 U	0.100 U	0.115 U	0.124	0.421	0.117	0.100 U
Motor Oil-range	NE	0.200 U	0.200 U	0.200 U	0.200 U	0.230 U	0.269	0.336	0.200 U	0.200 U
Total TPH (Sum Dx, Oil-range, mg/L)	0.5	0.273	ND	ND	ND	ND	0.393	0.757	0.117	ND
BTEX (ug/L)										
Benzene	5	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Toluene	640	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Ethylbenzene	700	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
m,p-Xylene	1,600	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
o-Xylene	1,600	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Polycyclic Aromatic Hydrocarbons (ug/L)										
1-Methylnaphthalene	1.51	0.020	0.017	0.012	0.010 U	0.013 U	0.011 U	NA	0.010 U	0.010 U
2-Methylnaphthalene	32	0.049	0.048	0.033	0.026	0.018	0.017	NA	0.010 U	0.010 U
Acenaphthene	960	0.010 U	0.010 U	0.010 U	0.010 U	0.013 U	0.011 U	NA	0.010 U	0.010 U
Acenaphthylene	NE	0.010 U	0.010 U	0.010 U	0.010 U	0.013 U	0.011 U	NA	0.010 U	0.010 U
Anthracene	4,800	0.014	0.010 U	0.010 U	0.010 U	0.013 U	0.011 U	NA	0.010 U	0.010 U
Benzo(a)anthracene ¹	0.12	0.020	0.010 U	0.010 U	0.010 U	0.013 U	0.011 U	NA	0.010 U	0.010 U
Benzo(b)fluoranthene ¹	0.12	0.013	0.010 U	0.010 U	0.010 U	0.013 U	0.011 U	NA	0.010 U	0.010 U
Benzo(k)fluoranthene ¹	1.2	0.010 U	0.010 U	0.010 U	0.010 U	0.013 U	0.011 U	NA	0.010 U	0.010 U
Benzo(a)pyrene ¹	0.12	0.014	0.010 U	0.010 U	0.010 U	0.013 U	0.011 U	NA	0.010 U	0.010 U
Benzo(g,h,i)perylene	NE	0.010 UJ	0.010 U	0.010 U	0.010 U	0.013 U	0.011 U	NA	0.010 U	0.010 U
Chrysene ¹	12	0.023	0.010 U	0.010 U	0.010 U	0.013 U	0.011 U	NA	0.010 U	0.010 U
Dibenz(a,h)anthracene ¹	0.012	0.010 UJ	0.010 U	0.010 U	0.010 U	0.013 U	0.011 U	NA	0.010 U	0.010 U
Dibenzofuran	16	0.010 U	0.010 U	0.010 U	0.010 U	0.013 U	0.011 U	NA	0.010 U	0.010 U
Fluoranthene	640	0.045	0.010 U	0.010 U	0.010 U	0.013 U	0.015	NA	0.010 U	0.010 U
Fluorene	640	0.010 U	0.010 U	0.010 U	0.010 U	0.013 U	0.011 U	NA	0.010 U	0.010 U
Indeno(1,2,3-cd)pyrene ¹	0.12	0.010 UJ	0.010 U	0.010 U	0.010 U	0.013 U	0.011 U	NA	0.010 U	0.010 U
Naphthalene	160	0.670	0.303 J	0.209 J	0.153	0.164	0.150	NA	0.040	0.013
Phenanthrene	NE	0.024	0.010 U	0.010 U	0.010 U	0.013 U	0.011 U	NA	0.010 U	0.010 U
Pyrene	480	0.054	0.010 U	0.010 U	0.010 U	0.013 U	0.012	NA	0.010 U	0.010 U
Total Benzofluoranthenes ²	0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA
TTEC	0.12	0.0175	NC	NC	NC	NC	NC	NC	NC	NC

Table 2 - Groundwater Monitoring Results
 Laurel Station Cleanup Action
 Bellingham, Washington

Sample ID Sample Date	Groundwater Cleanup Levels	MW-6 (continued)								
		4/5/18 (DUP)	6/27/18	10/1/18	12/19/18	3/20/19	5/8/19	6/19/19	10/2/19	10/2/19 (DUP)
Total Petroleum Hydrocarbons (TPH, mg/L)										
Gasoline-range (Gx)	0.8/1.0 ^a	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	NA	0.100 U	0.100 U	0.100 U
Diesel-range (Dx)	NE	0.100 U	0.100 U	0.141	0.100 U	0.100 U	0.100 U	NA	0.100 U	0.100 U
Motor Oil-range	NE	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NA	0.200 U	0.200 U
Total TPH (Sum Dx, Oil-range, mg/L)	0.5	ND	ND	0.141	ND	ND	ND	NC	ND	ND
BTEX (ug/L)										
Benzene	5	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NA	0.20 U	0.20 U	0.20 U
Toluene	640	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NA	0.21	0.20 U	0.20 U
Ethylbenzene	700	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NA	0.20 U	0.20 U	0.20 U
m,p-Xylene	1,600	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	0.40 U	0.40 U	0.40 U
o-Xylene	1,600	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NA	0.20 U	0.20 U	0.20 U
Polycyclic Aromatic Hydrocarbons (ug/L)										
1-Methylnaphthalene	1.51	0.010 U	NA	0.010 U	0.010 U	0.010 UJ	NA	0.049	0.016	0.011
2-Methylnaphthalene	32	0.010 U	NA	0.010 U	0.018	0.015 J	NA	0.122	0.032	0.031
Acenaphthene	960	0.010 U	NA	0.010 U	0.010 U	0.010 UJ	NA	0.019 U	0.010 U	0.010 U
Acenaphthylene	NE	0.010 U	NA	0.010 U	0.010 U	0.010 UJ	NA	0.019 U	0.010 U	0.010 U
Anthracene	4,800	0.010 U	NA	0.010 U	0.010 U	0.010 UJ	NA	0.050	0.010 U	0.010 U
Benzo(a)anthracene ¹	0.12	0.010 U	NA	0.010 U	0.010 U	0.010 UJ	NA	0.201 J	0.010 U	0.010 U
Benzo(b)fluoranthene ¹	0.12	0.010 U	NA	0.010 U	0.010 U	0.010 UJ	NA	0.131 J	0.010 U	0.010 U
Benzo(k)fluoranthene ¹	1.2	0.010 U	NA	0.010 U	0.010 U	0.010 UJ	NA	0.080 J	0.010 U	0.010 U
Benzo(a)pyrene ¹	0.12	0.010 U	NA	0.010 U	0.010 U	0.010 UJ	NA	0.166 J	0.010 U	0.010 U
Benzo(g,h,i)perylene	NE	0.010 U	NA	0.010 U	0.010 U	0.010 UJ	NA	0.097 J	0.010 U	0.010 U
Chrysene ¹	12	0.010 U	NA	0.010 U	0.010 U	0.010 UJ	NA	0.203 J	0.010 U	0.010 U
Dibenz(a,h)anthracene ¹	0.012	0.010 U	NA	0.010 U	0.010 U	0.010 UJ	NA	0.025 J	0.010 U	0.010 U
Dibenzofuran	16	0.010 U	NA	0.010 U	0.010 U	0.010 UJ	NA	0.019	0.010 U	0.010 U
Fluoranthene	640	0.010 U	NA	0.014	0.010 U	0.010 UJ	NA	0.180	0.010 U	0.010 U
Fluorene	640	0.010 U	NA	0.010 U	0.010 U	0.010 UJ	NA	0.019	0.010 U	0.010 U
Indeno(1,2,3-cd)pyrene ¹	0.12	0.010 U	NA	0.010 U	0.010 U	0.010 UJ	NA	0.082 J	0.010 U	0.010 U
Naphthalene	160	0.013	NA	0.083	0.088	0.073 J	NA	0.934	0.248	0.241
Phenanthrene	NE	0.010 U	NA	0.010 U	0.010 U	0.010 UJ	NA	0.099	0.010 U	0.010 U
Pyrene	480	0.010 U	NA	0.012	0.010 U	0.010 UJ	NA	0.188 J	0.010 U	0.010 U
Total Benzofluoranthenes ²	0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA
TTEC	0.12	NC	NC	NC	NC	NC	NA	0.220	NC	NC

Table 2 - Groundwater Monitoring Results
 Laurel Station Cleanup Action
 Bellingham, Washington

Sample ID Sample Date	Groundwater Cleanup Levels	MW-6 (continued)								
		12/18/19	3/5/20	3/5/20 (DUP)	6/17/20	12/21/20	12/21/20 (DUP)	3/8/21	3/8/21 (DUP)	6/22/21
Total Petroleum Hydrocarbons (TPH, mg/L)										
Gasoline-range (Gx)	0.8/1.0 ^a	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U
Diesel-range (Dx)	NE	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.111 U	0.111 U	0.100 U
Motor Oil-range	NE	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.222 U	0.222 U	0.200 U
Total TPH (Sum Dx, Oil-range, mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND
BTEX (ug/L)										
Benzene	5	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Toluene	640	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Ethylbenzene	700	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
m,p-Xylene	1,600	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
o-Xylene	1,600	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Polycyclic Aromatic Hydrocarbons (ug/L)										
1-Methylnaphthalene	1.51	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.011 U	0.010 U
2-Methylnaphthalene	32	0.021	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.011 U	0.011
Acenaphthene	960	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.011 U	0.010 U
Acenaphthylene	NE	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.011 U	0.010 U
Anthracene	4,800	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.011 U	0.010 U
Benzo(a)anthracene ¹	0.12	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.011 U	0.010 U
Benzo(b)fluoranthene ¹	0.12	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.011 U	0.010 U
Benzo(k)fluoranthene ¹	1.2	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.011 U	0.010 U
Benzo(a)pyrene ¹	0.12	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.011 U	0.010 U
Benzo(g,h,i)perylene	NE	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.011 U	0.010 U
Chrysene ¹	12	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.011 U	0.010 U
Dibenz(a,h)anthracene ¹	0.012	0.010 U	0.010 U	0.010 U	0.010 U	0.010 UJ	0.010 UJ	0.010 U	0.011 U	0.010 U
Dibenzofuran	16	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.011 U	0.010 U
Fluoranthene	640	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.011 U	0.010 U
Fluorene	640	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.011 U	0.010 U
Indeno(1,2,3-cd)pyrene ¹	0.12	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.011 U	0.010 U
Naphthalene	160	0.119	0.031	0.027	0.013	0.010 U	0.010 U	0.010 U	0.011 U	0.034
Phenanthrene	NE	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.011 U	0.014
Pyrene	480	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.011 U	0.010 U
Total Benzo(a)fluoranthenes ²	0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA
TTEC	0.12	NC	NC	NC	NC	NC	NC	NC	NC	NC

**Table 2 - Groundwater Monitoring Results
Laurel Station Cleanup Action
Bellingham, Washington**

Sample ID Sample Date	Groundwater Cleanup Levels	PV-1 4/24/15	DPE-1 4/24/15	4/24/15	DPE-2 5/8/19	5/8/19 (DUP)	DPE-3 4/23/15	DPE-4 4/24/15	4/24/15	DPE-5 5/8/19	DPE-7 5/8/19	DPE-8 4/23/15
Total Petroleum Hydrocarbons (TPH, mg/L)												
Gasoline-range (Gx)	0.8/1.0 ^a	0.25 U	0.25 U	0.25 U	NA	NA	0.25 U	0.25 U	0.25 U	NA	NA	0.25 U
Diesel-range (Dx)	NE	0.38	2.1	0.59	0.230	0.349	0.86	0.14	0.46	0.332	7.01	0.60
Motor Oil-range	NE	0.20 U	0.54	0.23	0.200 U	0.200 U	0.82	0.20 U	0.20 U	0.442	2.11	0.20 U
Total TPH (Sum Dx, Oil-range, mg/L)	0.5	0.38	2.64	0.82	0.230	0.349	1.68	0.14	0.46	0.774	9.12	0.60
BTEX (ug/L)												
Benzene	5	0.20 U	0.20 U	0.20 U	NA	NA	0.20 U	0.20 U	0.20 U	NA	NA	0.20 U
Toluene	640	0.26	0.20 U	0.55	NA	NA	0.37	0.20 U	0.20 U	NA	NA	0.44
Ethylbenzene	700	0.20 U	0.20 U	0.20 U	NA	NA	0.20 U	0.20 U	0.20 U	NA	NA	0.20 U
m,p-Xylene	1,600	0.40 U	0.40 U	0.40 U	NA	NA	0.40 U	0.40 U	0.40 U	NA	NA	0.40 U
o-Xylene	1,600	0.20 U	0.20 U	0.20 U	NA	NA	0.20 U	0.20 U	0.20 U	NA	NA	0.20 U
Polycyclic Aromatic Hydrocarbons (ug/L)												
1-Methylnaphthalene	1.51	0.010 U	0.010 U	0.010	NA	NA	0.019	0.010 U	0.010 U	NA	NA	0.010 U
2-Methylnaphthalene	32	0.010 U	0.010 U	0.010 U	NA	NA	0.022	0.010 U	0.010 U	NA	NA	0.010 U
Acenaphthene	960	0.010 U	0.010 U	0.010 U	NA	NA	0.010 U	0.010 U	0.010 U	NA	NA	0.010 U
Acenaphthylene	NE	0.010 U	0.010 U	0.010 U	NA	NA	0.010 U	0.010 U	0.010 U	NA	NA	0.010 U
Anthracene	4,800	0.010 U	0.010 U	0.010 U	NA	NA	0.010 U	0.010 U	0.010 U	NA	NA	0.010 U
Benzo(a)anthracene ¹	0.12	0.010 U	0.010 U	0.010 U	NA	NA	0.010 U	0.010 U	0.010 U	NA	NA	0.010 U
Benzo(b)fluoranthene ¹	0.12	0.010 U	0.015	0.010 U	NA	NA	0.016	0.010 U	0.010 U	NA	NA	0.010 U
Benzo(k)fluoranthene ¹	1.2	0.010 U	0.010 U	0.010 U	NA	NA	0.010 U	0.010 U	0.010 U	NA	NA	0.010 U
Benzo(a)pyrene ¹	0.12	0.010 U	0.010 U	0.010 U	NA	NA	0.010 U	0.010 U	0.010 U	NA	NA	0.010 U
Benzo(g,h,i)perylene	NE	0.010 U	0.010 U	0.010 U	NA	NA	0.015	0.010 U	0.010 U	NA	NA	0.010 U
Chrysene ¹	12	0.010 U	0.098	0.013	NA	NA	0.044	0.010 U	0.010 U	NA	NA	0.011
Dibenz(a,h)anthracene ¹	0.012	0.010 U	0.010 U	0.010 U	NA	NA	0.010 U	0.010 U	0.010 U	NA	NA	0.010 U
Dibenzofuran	16	0.010 U	0.010 U	0.010 U	NA	NA	0.012	0.010 U	0.010 U	NA	NA	0.010 U
Fluoranthene	640	0.010 U	0.010 U	0.010 U	NA	NA	0.010 U	0.010 U	0.010 U	NA	NA	0.010 U
Fluorene	640	0.010 U	0.010 U	0.018	NA	NA	0.012	0.010 U	0.027	NA	NA	0.010 U
Indeno(1,2,3-cd)pyrene ¹	0.12	0.010 U	0.010 U	0.010 U	NA	NA	0.010 U	0.010 U	0.010 U	NA	NA	0.010 U
Naphthalene	160	0.010 U	0.021 U	0.031 U	NA	NA	0.010 U	0.019 U	0.033 U	NA	NA	0.020 U
Phenanthrene	NE	0.010 U	0.010 U	0.010 U	NA	NA	0.013	0.010 U	0.010 U	NA	NA	0.010 U
Pyrene	480	0.010 U	0.057	0.020	NA	NA	0.031	0.010 U	0.010 U	NA	NA	0.012
Total Benzo(a)fluoranthenes ²	0.12	0.020 U	0.020 U	0.020 U	NA	NA	0.020 U	0.020 U	0.020 U	NA	NA	0.020 U
TTEC	0.12	NC	0.0025	0.00013	NA	NA	0.0020	NC	NC	NA	NA	0.00011

Notes:

Bolded values indicate that analyte was detected above the laboratory reporting limit.

Bolded and highlighted values exceed the project cleanup levels.

BTEX - benzene, toluene, ethylbenzene, and xylenes

J - estimated value

mg/L - milligram per liter

NA - not analyzed or not applicable

NC - not calculable

ND - not detected

NE - not established

TTEC - Total Toxicity Equivalent Concentration, reference WAC173-340-708

U - Compound was analyzed for but not detected above the reporting limit shown.

UJ - Compound was analyzed for but not detected above the reporting limit shown. Reporting limit is an estimated value.

ug/L - microgram per liter

^a Gasoline with benzene present/without benzene present

¹ This is considered a carcinogenic polycyclic aromatic hydrocarbon compound.

² Total benzo(a)fluoranthenes is the sum of the benzo(b)fluoranthene, benzo(j)fluoranthene, and benzo(k)fluoranthene isomers. The cleanup level of 0.12 ug/L is based on benzo(b)fluoranthene.



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To:	Karen Mixon, Project Manager	Info:	Final
From:	Chelsey Cook, Chemist Lucy Panteleeff, Chemist	Date:	March 24, 2021
RE:	Data Quality Review Quarterly Groundwater Samples – March 2021 Laurel Station Cleanup Action		

The data quality review of 1 groundwater sample, 1 field duplicate, and 1 trip blank collected on March 8, 2021, has been completed. The samples were analyzed by Analytical Resources, Incorporated (ARI) located in Tukwila, Washington for benzene, toluene, ethylbenzene, m,p-xylene, and o-xylene (BTEX) by EPA Method 8260D, total petroleum hydrocarbons (TPHs) by Washington State Department of Ecology (Ecology) Methods NWTGPH-Gx (gasoline-range TPH) and NWTGPH-Dx (diesel-range and motor oil-range TPH), and/or polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270E-SIM. Samples were analyzed for the chemical constituents as described in the *Final Compliance Monitoring Plan, Laurel Station, 1009 East Smith Road, Bellingham, Washington* dated January 16, 2015 (CMP). Due to changes in laboratory procedures, NWTGPH-Gx analysis was performed using GC/MS instrumentation instead of GC/FID.

The analyses were performed in general accordance with methods specified in EPA's *Test Methods for Evaluating Solid Waste (SW-846)* and Ecology's *Analytical Methods for Petroleum Hydrocarbons*, June 1997. The laboratory provided a full data package containing sample results and associated QA/QC data. The following samples are associated with ARI group 21C0139:

Sample ID	Laboratory ID
MW-6	21C0139-01
DUP-1 (Field duplicate of MW-6)	21C0139-02
Trip Blank	21C0139-03

The following comments refer to ARI's performance in meeting the quality control specifications described in the analytical methods. Data were qualified based on the method criteria and guidance provided in the EPA document *USEPA National Functional Guidelines for Organic Superfund Methods Data Review*, January 2017. Data qualifiers that may be assigned to data from this laboratory group include:

- U - The analyte was analyzed for but was not detected above the reported sample quantitation limit.
- J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

- DNR - Do Not Report. Multiple results reported from different analytical dates and/or dilutions. Value from another analysis should be used.

Sample Receipt

Upon receipt by ARI, the sample jar information was compared to the chain-of-custody (COC) and the cooler temperature was recorded. The cooler was received at a temperature within the EPA-recommended limits of greater than 0°C and less than or equal to 6°C. No issues related to sample identification were noted by ARI. The sample analyses were not indicated on the COC. The samples analyses were logged per AECOM instruction.

Organic Analyses

Samples were analyzed for BTEX, TPHs, and PAHs by the methods identified in the introduction to this report.

1. Holding Times – Acceptable
2. Instrument Performance and Calibrations (initial and continuing) – Acceptable
3. Blanks – Acceptable except as noted below:

PAHs by Method 8270D-SIM – 2-Methylnaphthalene (0.029 ug/L) and 1-methylnaphthalene (0.017 ug/L) were detected in the method blank associated with analytical batch BJC0295. 2-Methylnaphthalene and 1-methylnaphthalene were not detected in the associated samples; therefore, data were not qualified based on the method blank results.

4. Surrogates – Acceptable
5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) – Acceptable
6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) – Acceptable

General – MS/MSDs were performed using MW-6. Results were acceptable.

7. Field Duplicate – Acceptable

A field duplicate was collected for MW-6 and identified as DUP-1. Results were comparable.

8. Reporting Limits – Acceptable
9. Other Items of Note

PAHs by Method 8270E-SIM – The laboratory noted that the percent difference for the internal standard perylene-d12 (-51.53%) was below the acceptance limits of 50-200% in the continuing calibration verification (CCV) associated with batch BJC0295. Data were not qualified based on internal standard outliers in a CCV.

Overall Assessment of Data

The data reported in this laboratory group are considered usable for meeting project objectives. The completeness for laboratory group 21C0139 is 100%.

Table 1. Summary of Qualified Data

Sample ID	ARI ID	Analyte	Result	Units	Final Result
No data qualifiers were assigned to the results reported in laboratory group 21C0139 during validation.					



23 March 2021

Karen Mixon
AECOM
1111 Third Avenue, Suite 1600
Seattle, WA 98101

RE: Laurel Station

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

<u>Associated Work Order(s)</u>	<u>Associated SDG ID(s)</u>
21C0139	N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Chain of Custody Record & Laboratory Analysis Request



Analytical Resources, Incorporated
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)
 www.arilabs.com

ARI Assigned Number: 21C0139	Turn-around Requested: Standard	Page: 1 of 1
ARI Client Company: AECOM	Phone: 206-438-2700	Date: 3.8.21 Ice Present?
Client Contact: Karen. Mixon	No. of Coolers: 1	Cooler Temps: 3.9

Client Project Name: Laurel Station Groundwater Sampling	Analysis Requested				Notes/Comments								
Client Project #: 60651171	Samplers: Bryan Darby	BTEX	8260	Gx	NWTPH-Gx	Px	NWTPH-Dx	PAH's	8270 SIM				

Sample ID	Date	Time	Matrix	No. Containers	BTEX	8260	Gx	NWTPH-Gx	Px	NWTPH-Dx	PAH's	8270 SIM					
MW-6	3/8/21	1620	W	7													
MW-6-MS	3/8/21	1620	W	7													
MW-6-MSD	3/8/21	1620	W	7													
DUP-1	3/8/21	0000	W	7													
Trip Blank																	

Comments/Special Instructions	Relinquished by: (Signature) BD	Received by: (Signature) <i>[Signature]</i>	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: Bryan Darby	Printed Name: Samantha Colon	Printed Name:	Printed Name:
	Company: AECOM	Company: ARI	Company:	Company:
	Date & Time: 3/9/21 1300	Date & Time: 3/9/21 1300	Date & Time:	Date & Time:

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, notwithstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.



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Project: Laurel Station
Project Number: 60651171
Project Manager: Karen Mixon

Reported:
23-Mar-2021 18:19

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-6	21C0139-01	Water	08-Mar-2021 16:20	09-Mar-2021 13:00
Dup-1	21C0139-02	Water	08-Mar-2021 16:20	09-Mar-2021 13:00
Trip Blank	21C0139-03	Water	08-Mar-2021 16:20	09-Mar-2021 13:00



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Project: Laurel Station
Project Number: 60651171
Project Manager: Karen Mixon

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Work Order Case Narrative

Gasoline by NWTPH-g (GC/MS)

The sample(s) were analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

The matrix spike/matrix spike duplicate (MS/MSD) spike recoveries and relative percent difference (RPD) were within advisory control limits.

Volatiles - EPA Method SW8260D

The sample(s) were analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

The matrix spike/matrix spike duplicate (MS/MSD) spike recoveries and relative percent difference (RPD) were within advisory control limits.

Polynuclear Aromatic Hydrocarbons (PAH) - EPA Method SW8270E-SIM

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements with the exception of the CCV which showed <50% area for d12-perylene. All targets above 50% recovery so no corrective action taken.

Internal standard areas were within limits.



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The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits with the exception of 1-Methylnaphthalene and 2-Methylnaphthalene. The associated samples were non-detected and no further corrective action was taken.

The blank spike (BS/LCS) percent recoveries were within control limits.

The matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent difference (RPD) were within advisory control limits.

Diesel/Heavy Oil Range Organics - WA-Ecology Method NW-TPHDx

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The matrix spike (MS) percent recoveries and the duplicate (DUP) relative percent difference (RPD) were within advisory control limits.



Cooler Receipt Form

ARI Client: AECOM

Project Name: Laurel Station GW Sampling

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 21C0139

Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO

Were custody papers included with the cooler? YES NO

Were custody papers properly filled out (ink, signed, etc.) YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1300 3.9

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: DOO 5206

Cooler Accepted by: SC Date: 3/19/21 Time: 1300

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA YES NO

How were bottles sealed in plastic bags? Individually Grouped Not

Did all bottles arrive in good condition (unbroken)? YES NO

Were all bottle labels complete and legible? YES NO

Did the number of containers listed on COC match with the number of containers received? YES NO

Did all bottle labels and tags agree with custody papers? YES NO

Were all bottles used correct for the requested analyses? YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ... NA YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI... NA 3/13/21

Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: SC Date: 3/19/21 Time: 1502 Labels checked by: SC

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____



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Project: Laurel Station
Project Number: 60651171
Project Manager: Karen Mixon

Reported:
23-Mar-2021 18:19

MW-6
21C0139-01 (Water)

Volatile Organic Compounds

Method: EPA 8260D Sampled: 03/08/2021 16:20
Instrument: NT3 Analyst: PKC Analyzed: 03/10/2021 14:20

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) Extract ID: 21C0139-01 N
Preparation Batch: BJC0257 Sample Size: 10 mL
Prepared: 03/10/2021 Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Benzene	71-43-2	1	0.20	ND	ug/L	U
Toluene	108-88-3	1	0.20	ND	ug/L	U
Ethylbenzene	100-41-4	1	0.20	ND	ug/L	U
m,p-Xylene	179601-23-1	1	0.40	ND	ug/L	U
o-Xylene	95-47-6	1	0.20	ND	ug/L	U
<i>Surrogate: 1,2-Dichloroethane-d4</i>			80-129 %	96.8	%	
<i>Surrogate: Toluene-d8</i>			80-120 %	98.5	%	
<i>Surrogate: 4-Bromofluorobenzene</i>			80-120 %	92.7	%	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>			80-120 %	98.1	%	



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Reported:
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MW-6
21C0139-01 (Water)

Volatile Organic Compounds

Method: NWTPHg		Sampled: 03/08/2021 16:20
Instrument: NT3 Analyst: PKC		Analyzed: 03/10/2021 14:20
Sample Preparation:	Preparation Method: EPA 5030C (Purge and Trap)	Extract ID: 21C0139-01 N
	Preparation Batch: BJC0257	Sample Size: 10 mL
	Prepared: 03/10/2021	Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Gasoline Range Organics (Tol-Nap)	GRO	1	100	ND	ug/L	U
Surrogate: Toluene-d8			80-120 %	98.5	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	92.7	%	



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Project Manager: Karen Mixon

Reported:
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MW-6
21C0139-01 (Water)

Semivolatile Organic Compounds - SIM

Method: EPA 8270E-SIM Sampled: 03/08/2021 16:20
Instrument: NT11 Analyst: VTS Analyzed: 03/20/2021 15:42

Sample Preparation: Preparation Method: EPA 3510C SepF Extract ID: 21C0139-01 D 01
Preparation Batch: BJC0295 Sample Size: 480 mL
Prepared: 03/12/2021 Final Volume: 0.5 mL

Sample Cleanup: Cleanup Method: Silica Gel Extract ID: 21C0139-01 D 01
Cleanup Batch: CJC0210 Initial Volume: 0.5 mL
Cleaned: 17-Mar-2021 Final Volume: 0.5 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Naphthalene	91-20-3	1	0.010	ND	ug/L	U
2-Methylnaphthalene	91-57-6	1	0.010	ND	ug/L	U
1-Methylnaphthalene	90-12-0	1	0.010	ND	ug/L	U
Acenaphthylene	208-96-8	1	0.010	ND	ug/L	U
Acenaphthene	83-32-9	1	0.010	ND	ug/L	U
Dibenzofuran	132-64-9	1	0.010	ND	ug/L	U
Fluorene	86-73-7	1	0.010	ND	ug/L	U
Phenanthrene	85-01-8	1	0.010	ND	ug/L	U
Anthracene	120-12-7	1	0.010	ND	ug/L	U
Fluoranthene	206-44-0	1	0.010	ND	ug/L	U
Pyrene	129-00-0	1	0.010	ND	ug/L	U
Benzo(a)anthracene	56-55-3	1	0.010	ND	ug/L	U
Chrysene	218-01-9	1	0.010	ND	ug/L	U
Benzo(b)fluoranthene	205-99-2	1	0.010	ND	ug/L	U
Benzo(k)fluoranthene	207-08-9	1	0.010	ND	ug/L	U
Benzo(a)pyrene	50-32-8	1	0.010	ND	ug/L	U
Indeno(1,2,3-cd)pyrene	193-39-5	1	0.010	ND	ug/L	U
Dibenzo(a,h)anthracene	53-70-3	1	0.010	ND	ug/L	U
Benzo(g,h,i)perylene	191-24-2	1	0.010	ND	ug/L	U
<i>Surrogate: 2-Methylnaphthalene-d10</i>			42-120 %	66.4	%	
<i>Surrogate: Dibenzo[a,h]anthracene-d14</i>			29-120 %	64.9	%	
<i>Surrogate: Fluoranthene-d10</i>			57-120 %	76.7	%	



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MW-6
21C0139-01 (Water)

Petroleum Hydrocarbons

Method: NWTPH-Dx	Preparation Method: EPA 3510C SepF	Sample Size: 450 mL	Sampled: 03/08/2021 16:20
Instrument: FID4 Analyst: CTO	Preparation Batch: BJC0294	Final Volume: 1 mL	Analyzed: 03/18/2021 17:37
Sample Preparation:	Prepared: 03/13/2021		Extract ID: 21C0139-01 A 01

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Diesel Range Organics (C12-C24)	DRO	1	0.111	ND	mg/L	U
Motor Oil Range Organics (C24-C38)	RRO	1	0.222	ND	mg/L	U
<i>Surrogate: o-Terphenyl</i>			50-150 %	95.0	%	



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Project Manager: Karen Mixon

Reported:
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Dup-1
21C0139-02 (Water)

Volatile Organic Compounds

Method: EPA 8260D Sampled: 03/08/2021 16:20
Instrument: NT3 Analyst: PKC Analyzed: 03/10/2021 14:45

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) Extract ID: 21C0139-02 E
Preparation Batch: BJC0257 Sample Size: 10 mL
Prepared: 03/10/2021 Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Benzene	71-43-2	1	0.20	ND	ug/L	U
Toluene	108-88-3	1	0.20	ND	ug/L	U
Ethylbenzene	100-41-4	1	0.20	ND	ug/L	U
m,p-Xylene	179601-23-1	1	0.40	ND	ug/L	U
o-Xylene	95-47-6	1	0.20	ND	ug/L	U
<i>Surrogate: 1,2-Dichloroethane-d4</i>			80-129 %	92.6	%	
<i>Surrogate: Toluene-d8</i>			80-120 %	98.8	%	
<i>Surrogate: 4-Bromofluorobenzene</i>			80-120 %	98.6	%	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>			80-120 %	101	%	



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Project Manager: Karen Mixon

Reported:
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Dup-1
21C0139-02 (Water)

Volatile Organic Compounds

Method: NWTPHg Sampled: 03/08/2021 16:20
Instrument: NT3 Analyst: PKC Analyzed: 03/10/2021 14:45
Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) Extract ID: 21C0139-02 E
Preparation Batch: BJC0257 Sample Size: 10 mL
Prepared: 03/10/2021 Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Gasoline Range Organics (Tol-Nap)	GRO	1	100	ND	ug/L	U
Surrogate: Toluene-d8			80-120 %	98.8	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	98.6	%	



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Reported:
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Dup-1
21C0139-02 (Water)

Semivolatile Organic Compounds - SIM

Method: EPA 8270E-SIM Sampled: 03/08/2021 16:20
Instrument: NT11 Analyst: VTS Analyzed: 03/20/2021 17:19

Sample Preparation: Preparation Method: EPA 3510C SepF Extract ID: 21C0139-02 C 01
Preparation Batch: BJC0295 Sample Size: 450 mL
Prepared: 03/12/2021 Final Volume: 0.5 mL

Sample Cleanup: Cleanup Method: Silica Gel Extract ID: 21C0139-02 C 01
Cleanup Batch: CJC0210 Initial Volume: 0.5 mL
Cleaned: 17-Mar-2021 Final Volume: 0.5 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Naphthalene	91-20-3	1	0.011	ND	ug/L	U
2-Methylnaphthalene	91-57-6	1	0.011	ND	ug/L	U
1-Methylnaphthalene	90-12-0	1	0.011	ND	ug/L	U
Acenaphthylene	208-96-8	1	0.011	ND	ug/L	U
Acenaphthene	83-32-9	1	0.011	ND	ug/L	U
Dibenzofuran	132-64-9	1	0.011	ND	ug/L	U
Fluorene	86-73-7	1	0.011	ND	ug/L	U
Phenanthrene	85-01-8	1	0.011	ND	ug/L	U
Anthracene	120-12-7	1	0.011	ND	ug/L	U
Fluoranthene	206-44-0	1	0.011	ND	ug/L	U
Pyrene	129-00-0	1	0.011	ND	ug/L	U
Benzo(a)anthracene	56-55-3	1	0.011	ND	ug/L	U
Chrysene	218-01-9	1	0.011	ND	ug/L	U
Benzo(b)fluoranthene	205-99-2	1	0.011	ND	ug/L	U
Benzo(k)fluoranthene	207-08-9	1	0.011	ND	ug/L	U
Benzo(a)pyrene	50-32-8	1	0.011	ND	ug/L	U
Indeno(1,2,3-cd)pyrene	193-39-5	1	0.011	ND	ug/L	U
Dibenzo(a,h)anthracene	53-70-3	1	0.011	ND	ug/L	U
Benzo(g,h,i)perylene	191-24-2	1	0.011	ND	ug/L	U
<i>Surrogate: 2-Methylnaphthalene-d10</i>			42-120 %	74.0	%	
<i>Surrogate: Dibenzo[a,h]anthracene-d14</i>			29-120 %	64.6	%	
<i>Surrogate: Fluoranthene-d10</i>			57-120 %	78.3	%	



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Project: Laurel Station
Project Number: 60651171
Project Manager: Karen Mixon

Reported:
23-Mar-2021 18:19

Dup-1
21C0139-02 (Water)

Petroleum Hydrocarbons

Method: NWTPH-Dx Sampled: 03/08/2021 16:20
Instrument: FID4 Analyst: CTO Analyzed: 03/18/2021 18:40
Sample Preparation: Preparation Method: EPA 3510C SepF Extract ID: 21C0139-02 A 01
Preparation Batch: BJC0294 Sample Size: 450 mL
Prepared: 03/13/2021 Final Volume: 1 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Diesel Range Organics (C12-C24)	DRO	1	0.111	ND	mg/L	U
Motor Oil Range Organics (C24-C38)	RRO	1	0.222	ND	mg/L	U
<i>Surrogate: o-Terphenyl</i>			50-150 %	80.5	%	



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Reported:
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Trip Blank
21C0139-03 (Water)

Volatile Organic Compounds

Method: EPA 8260D Sampled: 03/08/2021 16:20
Instrument: NT3 Analyst: PKC Analyzed: 03/10/2021 12:32

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) Extract ID: 21C0139-03 A
Preparation Batch: BJC0257 Sample Size: 10 mL
Prepared: 03/10/2021 Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Benzene	71-43-2	1	0.20	ND	ug/L	U
Toluene	108-88-3	1	0.20	ND	ug/L	U
Ethylbenzene	100-41-4	1	0.20	ND	ug/L	U
m,p-Xylene	179601-23-1	1	0.40	ND	ug/L	U
o-Xylene	95-47-6	1	0.20	ND	ug/L	U
<i>Surrogate: 1,2-Dichloroethane-d4</i>			80-129 %	96.6	%	
<i>Surrogate: Toluene-d8</i>			80-120 %	99.7	%	
<i>Surrogate: 4-Bromofluorobenzene</i>			80-120 %	98.5	%	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>			80-120 %	101	%	



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Project: Laurel Station
Project Number: 60651171
Project Manager: Karen Mixon

Reported:
23-Mar-2021 18:19

Trip Blank
21C0139-03 (Water)

Volatile Organic Compounds

Method: NWTPHg Sampled: 03/08/2021 16:20
Instrument: NT3 Analyst: PKC Analyzed: 03/10/2021 12:32
Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) Extract ID: 21C0139-03 A
Preparation Batch: BJC0257 Sample Size: 10 mL
Prepared: 03/10/2021 Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Gasoline Range Organics (Tol-Nap)	GRO	1	100	ND	ug/L	U
Surrogate: Toluene-d8			80-120 %	99.7	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	98.5	%	



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Project Manager: Karen Mixon

Reported:
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Volatile Organic Compounds - Quality Control

Batch BJC0257 - EPA 5030C (Purge and Trap)

Instrument: NT3 Analyst: PKC

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJC0257-BLK1)										
					Prepared: 10-Mar-2021	Analyzed: 10-Mar-2021 12:06				
Benzene	ND	0.20	ug/L							U
Toluene	ND	0.20	ug/L							U
Ethylbenzene	ND	0.20	ug/L							U
m,p-Xylene	ND	0.40	ug/L							U
o-Xylene	ND	0.20	ug/L							U
Surrogate: 1,2-Dichloroethane-d4	4.98		ug/L	5.00		99.5	80-129			
Surrogate: Toluene-d8	4.99		ug/L	5.00		99.7	80-120			
Surrogate: 4-Bromofluorobenzene	4.95		ug/L	5.00		98.9	80-120			
Surrogate: 1,2-Dichlorobenzene-d4	4.77		ug/L	5.00		95.5	80-120			
Blank (BJC0257-BLK2)										
					Prepared: 10-Mar-2021	Analyzed: 10-Mar-2021 12:06				
Gasoline Range Organics (Tol-Nap)	ND	100	ug/L							U
Surrogate: Toluene-d8	4.99		ug/L	5.00		99.7	80-120			
Surrogate: 4-Bromofluorobenzene	4.95		ug/L	5.00		98.9	80-120			
LCS (BJC0257-BS1)										
					Prepared: 10-Mar-2021	Analyzed: 10-Mar-2021 09:56				
Benzene	9.72	0.20	ug/L	10.0		97.2	80-120			
Toluene	9.35	0.20	ug/L	10.0		93.5	80-120			
Ethylbenzene	9.41	0.20	ug/L	10.0		94.1	80-120			
m,p-Xylene	19.8	0.40	ug/L	20.0		99.0	80-121			
o-Xylene	9.52	0.20	ug/L	10.0		95.2	80-121			
Surrogate: 1,2-Dichloroethane-d4	4.89		ug/L	5.00		97.9	80-129			
Surrogate: Toluene-d8	4.87		ug/L	5.00		97.3	80-120			
Surrogate: 4-Bromofluorobenzene	4.84		ug/L	5.00		96.9	80-120			
Surrogate: 1,2-Dichlorobenzene-d4	5.16		ug/L	5.00		103	80-120			
LCS (BJC0257-BS2)										
					Prepared: 10-Mar-2021	Analyzed: 10-Mar-2021 10:48				
Gasoline Range Organics (Tol-Nap)	954	100	ug/L	1000		95.4	72-128			
Surrogate: Toluene-d8	5.07		ug/L	5.00		101	80-120			
Surrogate: 4-Bromofluorobenzene	4.82		ug/L	5.00		96.3	80-120			
LCS Dup (BJC0257-BSD1)										
					Prepared: 10-Mar-2021	Analyzed: 10-Mar-2021 10:22				
Benzene	10.4	0.20	ug/L	10.0		104	80-120	6.39	30	
Toluene	10.1	0.20	ug/L	10.0		101	80-120	7.60	30	



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Volatile Organic Compounds - Quality Control

Batch BJC0257 - EPA 5030C (Purge and Trap)

Instrument: NT3 Analyst: PKC

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BJC0257-BSD1)				Prepared: 10-Mar-2021 Analyzed: 10-Mar-2021 10:22						
Ethylbenzene	10.6	0.20	ug/L	10.0		106	80-120	11.50	30	
m,p-Xylene	21.6	0.40	ug/L	20.0		108	80-121	8.56	30	
o-Xylene	10.6	0.20	ug/L	10.0		106	80-121	10.90	30	
Surrogate: 1,2-Dichloroethane-d4	4.85		ug/L	5.00		97.0	80-129			
Surrogate: Toluene-d8	5.09		ug/L	5.00		102	80-120			
Surrogate: 4-Bromofluorobenzene	5.35		ug/L	5.00		107	80-120			
Surrogate: 1,2-Dichlorobenzene-d4	4.99		ug/L	5.00		99.8	80-120			

LCS Dup (BJC0257-BSD2)				Prepared: 10-Mar-2021 Analyzed: 10-Mar-2021 11:14						
Gasoline Range Organics (Tol-Nap)	995	100	ug/L	1000		99.5	72-128	4.20	30	
Surrogate: Toluene-d8	5.07		ug/L	5.00		101	80-120			
Surrogate: 4-Bromofluorobenzene	4.92		ug/L	5.00		98.4	80-120			

Matrix Spike (BJC0257-MS1)				Source: 21C0139-01 Prepared: 10-Mar-2021 Analyzed: 10-Mar-2021 20:53						
Benzene	10.8	0.20	ug/L	10.0	ND	108	80-120			
Toluene	10.7	0.20	ug/L	10.0	ND	107	80-120			
Ethylbenzene	10.6	0.20	ug/L	10.0	ND	106	80-120			
m,p-Xylene	22.1	0.40	ug/L	20.0	ND	110	80-121			
o-Xylene	10.3	0.20	ug/L	10.0	ND	103	80-121			
Surrogate: 1,2-Dichloroethane-d4	4.57		ug/L	5.00	4.84	91.3	80-129			
Surrogate: Toluene-d8	5.04		ug/L	5.00	4.93	101	80-120			
Surrogate: 4-Bromofluorobenzene	5.23		ug/L	5.00	4.63	105	80-120			
Surrogate: 1,2-Dichlorobenzene-d4	5.06		ug/L	5.00	4.91	101	80-120			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Matrix Spike (BJC0257-MS2)				Source: 21C0139-01 Prepared: 10-Mar-2021 Analyzed: 10-Mar-2021 21:44						
Gasoline Range Organics (Tol-Nap)	879	100	ug/L	1000	ND	87.9	72-128			
Surrogate: Toluene-d8	4.99		ug/L	5.00	4.93	99.7	80-120			
Surrogate: 4-Bromofluorobenzene	4.93		ug/L	5.00	4.63	98.6	80-120			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Matrix Spike Dup (BJC0257-MSD1)				Source: 21C0139-01 Prepared: 10-Mar-2021 Analyzed: 10-Mar-2021 21:19						
Benzene	10.7	0.20	ug/L	10.0	ND	107	80-120	1.08	30	
Toluene	10.7	0.20	ug/L	10.0	ND	107	80-120	0.50	30	



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Volatile Organic Compounds - Quality Control

Batch BJC0257 - EPA 5030C (Purge and Trap)

Instrument: NT3 Analyst: PKC

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Matrix Spike Dup (BJC0257-MSD1)		Source: 21C0139-01		Prepared: 10-Mar-2021		Analyzed: 10-Mar-2021 21:19				
Ethylbenzene	10.7	0.20	ug/L	10.0	ND	107	80-120	1.36	30	
m,p-Xylene	22.1	0.40	ug/L	20.0	ND	110	80-121	0.10	30	
o-Xylene	10.5	0.20	ug/L	10.0	ND	105	80-121	1.64	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.05		ug/L	5.00	4.84	101	80-129			
<i>Surrogate: Toluene-d8</i>	4.82		ug/L	5.00	4.93	96.5	80-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	4.80		ug/L	5.00	4.63	96.1	80-120			
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	5.06		ug/L	5.00	4.91	101	80-120			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Matrix Spike Dup (BJC0257-MSD2)		Source: 21C0139-01		Prepared: 10-Mar-2021		Analyzed: 10-Mar-2021 22:09				
Gasoline Range Organics (Tol-Nap)	914	100	ug/L	1000	ND	91.4	72-128	3.92	30	
<i>Surrogate: Toluene-d8</i>	5.00		ug/L	5.00	4.93	100	80-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	5.09		ug/L	5.00	4.63	102	80-120			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.



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Semivolatile Organic Compounds - SIM - Quality Control

Batch BJC0295 - EPA 3510C SepF

Instrument: NT11 Analyst: VTS

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJC0295-BLK1)										
				Prepared: 12-Mar-2021 Analyzed: 20-Mar-2021 13:01						
Naphthalene	ND	0.010	ug/L							U
2-Methylnaphthalene	0.029	0.010	ug/L							
1-Methylnaphthalene	0.017	0.010	ug/L							
Acenaphthylene	ND	0.010	ug/L							U
Acenaphthene	ND	0.010	ug/L							U
Dibenzofuran	ND	0.010	ug/L							U
Fluorene	ND	0.010	ug/L							U
Phenanthrene	ND	0.010	ug/L							U
Anthracene	ND	0.010	ug/L							U
Fluoranthene	ND	0.010	ug/L							U
Pyrene	ND	0.010	ug/L							U
Benzo(a)anthracene	ND	0.010	ug/L							U
Chrysene	ND	0.010	ug/L							U
Benzo(b)fluoranthene	ND	0.010	ug/L							U
Benzo(k)fluoranthene	ND	0.010	ug/L							U
Benzo(a)pyrene	ND	0.010	ug/L							U
Indeno(1,2,3-cd)pyrene	ND	0.010	ug/L							U
Dibenzo(a,h)anthracene	ND	0.010	ug/L							U
Benzo(g,h,i)perylene	ND	0.010	ug/L							U
Surrogate: 2-Methylnaphthalene-d10	0.203		ug/L	0.300		67.5	42-120			
Surrogate: Dibenzo[a,h]anthracene-d14	0.209		ug/L	0.300		69.7	29-120			
Surrogate: Fluoranthene-d10	0.216		ug/L	0.300		72.0	57-120			

LCS (BJC0295-BS1)										
				Prepared: 12-Mar-2021 Analyzed: 20-Mar-2021 13:33						
Naphthalene	0.198	0.010	ug/L	0.300		66.1	37-120			
2-Methylnaphthalene	0.204	0.010	ug/L	0.300		68.1	37-120			B
1-Methylnaphthalene	0.204	0.010	ug/L	0.300		68.1	29-120			B
Acenaphthylene	0.174	0.010	ug/L	0.300		58.1	41-120			
Acenaphthene	0.180	0.010	ug/L	0.300		60.0	41-120			
Dibenzofuran	0.185	0.010	ug/L	0.300		61.6	38-120			
Fluorene	0.194	0.010	ug/L	0.300		64.7	43-120			
Phenanthrene	0.215	0.010	ug/L	0.300		71.7	41-120			
Anthracene	0.193	0.010	ug/L	0.300		64.4	40-120			
Fluoranthene	0.217	0.010	ug/L	0.300		72.4	45-120			
Pyrene	0.218	0.010	ug/L	0.300		72.6	41-120			



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Semivolatile Organic Compounds - SIM - Quality Control

Batch BJC0295 - EPA 3510C SepF

Instrument: NT11 Analyst: VTS

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BJC0295-BS1)				Prepared: 12-Mar-2021 Analyzed: 20-Mar-2021 13:33						
Benzo(a)anthracene	0.201	0.010	ug/L	0.300		67.0	42-120			
Chrysene	0.205	0.010	ug/L	0.300		68.5	44-120			
Benzo(b)fluoranthene	0.199	0.010	ug/L	0.300		66.2	44-120			
Benzo(k)fluoranthene	0.228	0.010	ug/L	0.300		76.0	50-120			
Benzo(a)pyrene	0.201	0.010	ug/L	0.300		66.9	35-120			
Indeno(1,2,3-cd)pyrene	0.235	0.010	ug/L	0.300		78.5	37-120			
Dibenzo(a,h)anthracene	0.228	0.010	ug/L	0.300		76.0	34-120			
Benzo(g,h,i)perylene	0.230	0.010	ug/L	0.300		76.5	38-120			
Surrogate: 2-Methylnaphthalene-d10	0.231		ug/L	0.300		76.9	42-120			
Surrogate: Dibenzo[a,h]anthracene-d14	0.242		ug/L	0.300		80.6	29-120			
Surrogate: Fluoranthene-d10	0.233		ug/L	0.300		77.7	57-120			

LCS Dup (BJC0295-BSD1)				Prepared: 12-Mar-2021 Analyzed: 20-Mar-2021 14:05						
Naphthalene	0.223	0.010	ug/L	0.300		74.5	37-120	11.90	30	
2-Methylnaphthalene	0.229	0.010	ug/L	0.300		76.2	37-120	11.20	30	B
1-Methylnaphthalene	0.231	0.010	ug/L	0.300		77.1	29-120	12.40	30	B
Acenaphthylene	0.196	0.010	ug/L	0.300		65.3	41-120	11.70	30	
Acenaphthene	0.203	0.010	ug/L	0.300		67.6	41-120	12.00	30	
Dibenzofuran	0.206	0.010	ug/L	0.300		68.6	38-120	10.70	30	
Fluorene	0.219	0.010	ug/L	0.300		73.0	43-120	12.10	30	
Phenanthrene	0.239	0.010	ug/L	0.300		79.8	41-120	10.60	30	
Anthracene	0.205	0.010	ug/L	0.300		68.3	40-120	5.81	30	
Fluoranthene	0.244	0.010	ug/L	0.300		81.3	45-120	11.50	30	
Pyrene	0.244	0.010	ug/L	0.300		81.3	41-120	11.30	30	
Benzo(a)anthracene	0.227	0.010	ug/L	0.300		75.8	42-120	12.30	30	
Chrysene	0.232	0.010	ug/L	0.300		77.4	44-120	12.20	30	
Benzo(b)fluoranthene	0.219	0.010	ug/L	0.300		73.2	44-120	9.94	30	
Benzo(k)fluoranthene	0.263	0.010	ug/L	0.300		87.6	50-120	14.10	30	
Benzo(a)pyrene	0.230	0.010	ug/L	0.300		76.7	35-120	13.70	30	
Indeno(1,2,3-cd)pyrene	0.263	0.010	ug/L	0.300		87.8	37-120	11.20	30	
Dibenzo(a,h)anthracene	0.255	0.010	ug/L	0.300		84.9	34-120	11.10	30	
Benzo(g,h,i)perylene	0.258	0.010	ug/L	0.300		85.9	38-120	11.60	30	
Surrogate: 2-Methylnaphthalene-d10	0.233		ug/L	0.300		77.5	42-120			
Surrogate: Dibenzo[a,h]anthracene-d14	0.247		ug/L	0.300		82.4	29-120			



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Semivolatile Organic Compounds - SIM - Quality Control

Batch BJC0295 - EPA 3510C SepF

Instrument: NT11 Analyst: VTS

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BJC0295-BSD1)					Prepared: 12-Mar-2021 Analyzed: 20-Mar-2021 14:05					
Surrogate: Fluoranthene-d10	0.238		ug/L	0.300		79.3	57-120			
Matrix Spike (BJC0295-MS1)					Source: 21C0139-01 Prepared: 12-Mar-2021 Analyzed: 20-Mar-2021 16:15					
Naphthalene	0.227	0.010	ug/L	0.300	ND	73.4	37-120			
2-Methylnaphthalene	0.233	0.010	ug/L	0.300	ND	76.1	37-120			B
1-Methylnaphthalene	0.233	0.010	ug/L	0.300	ND	76.5	29-120			B
Acenaphthylene	0.192	0.010	ug/L	0.300	ND	63.9	41-120			
Acenaphthene	0.202	0.010	ug/L	0.300	ND	67.4	41-120			
Dibenzofuran	0.206	0.010	ug/L	0.300	ND	68.1	38-120			
Fluorene	0.219	0.010	ug/L	0.300	ND	72.3	43-120			
Phenanthrene	0.243	0.010	ug/L	0.300	ND	79.1	41-120			
Anthracene	0.226	0.010	ug/L	0.300	ND	75.2	40-120			
Fluoranthene	0.253	0.010	ug/L	0.300	ND	82.6	45-120			
Pyrene	0.256	0.010	ug/L	0.300	ND	83.4	41-120			
Benzo(a)anthracene	0.231	0.010	ug/L	0.300	ND	76.1	42-120			
Chrysene	0.237	0.010	ug/L	0.300	ND	77.5	44-120			
Benzo(b)fluoranthene	0.211	0.010	ug/L	0.300	ND	69.7	44-120			
Benzo(k)fluoranthene	0.251	0.010	ug/L	0.300	ND	83.6	50-120			
Benzo(a)pyrene	0.240	0.010	ug/L	0.300	ND	79.0	35-120			
Indeno(1,2,3-cd)pyrene	0.233	0.010	ug/L	0.300	ND	77.2	37-120			
Dibenzo(a,h)anthracene	0.221	0.010	ug/L	0.300	ND	73.6	34-120			
Benzo(g,h,i)perylene	0.227	0.010	ug/L	0.300	ND	75.6	38-120			
Surrogate: 2-Methylnaphthalene-d10	0.240		ug/L	0.300	0.208	79.9	42-120			
Surrogate: Dibenzo[a,h]anthracene-d14	0.221		ug/L	0.300	0.203	73.6	29-120			
Surrogate: Fluoranthene-d10	0.246		ug/L	0.300	0.240	82.0	57-120			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Matrix Spike Dup (BJC0295-MSD1)					Source: 21C0139-01 Prepared: 12-Mar-2021 Analyzed: 20-Mar-2021 16:47					
Naphthalene	0.219	0.010	ug/L	0.300	ND	70.8	37-120	3.51	30	
2-Methylnaphthalene	0.226	0.010	ug/L	0.300	ND	74.1	37-120	2.66	30	B
1-Methylnaphthalene	0.227	0.010	ug/L	0.300	ND	74.5	29-120	2.55	30	B
Acenaphthylene	0.190	0.010	ug/L	0.300	ND	63.5	41-120	0.71	30	
Acenaphthene	0.200	0.010	ug/L	0.300	ND	66.5	41-120	1.31	30	
Dibenzofuran	0.203	0.010	ug/L	0.300	ND	66.9	38-120	1.64	30	
Fluorene	0.218	0.010	ug/L	0.300	ND	71.9	43-120	0.54	30	



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Semivolatile Organic Compounds - SIM - Quality Control

Batch BJC0295 - EPA 3510C SepF

Instrument: NT11 Analyst: VTS

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Matrix Spike Dup (BJC0295-MSD1)										
		Source: 21C0139-01		Prepared: 12-Mar-2021		Analyzed: 20-Mar-2021 16:47				
Phenanthrene	0.247	0.010	ug/L	0.300	ND	80.5	41-120	1.76	30	
Anthracene	0.230	0.010	ug/L	0.300	ND	76.5	40-120	1.73	30	
Fluoranthene	0.260	0.010	ug/L	0.300	ND	84.8	45-120	2.63	30	
Pyrene	0.263	0.010	ug/L	0.300	ND	85.6	41-120	2.56	30	
Benzo(a)anthracene	0.237	0.010	ug/L	0.300	ND	78.1	42-120	2.60	30	
Chrysene	0.242	0.010	ug/L	0.300	ND	79.4	44-120	2.42	30	
Benzo(b)fluoranthene	0.220	0.010	ug/L	0.300	ND	72.6	44-120	3.99	30	
Benzo(k)fluoranthene	0.259	0.010	ug/L	0.300	ND	86.4	50-120	3.25	30	
Benzo(a)pyrene	0.250	0.010	ug/L	0.300	ND	82.4	35-120	4.21	30	
Indeno(1,2,3-cd)pyrene	0.242	0.010	ug/L	0.300	ND	80.2	37-120	3.81	30	
Dibenzo(a,h)anthracene	0.228	0.010	ug/L	0.300	ND	76.0	34-120	3.24	30	
Benzo(g,h,i)perylene	0.235	0.010	ug/L	0.300	ND	78.2	38-120	3.29	30	
Surrogate: 2-Methylnaphthalene-d10	0.227		ug/L	0.300	0.208	75.6	42-120			
Surrogate: Dibenzo[a,h]anthracene-d14	0.222		ug/L	0.300	0.203	74.0	29-120			
Surrogate: Fluoranthene-d10	0.242		ug/L	0.300	0.240	80.7	57-120			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.



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Petroleum Hydrocarbons - Quality Control

Batch BJC0294 - EPA 3510C SepF

Instrument: FID4 Analyst: CTO

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJC0294-BLK1)				Prepared: 13-Mar-2021 Analyzed: 18-Mar-2021 16:34						
Diesel Range Organics (C12-C24)	ND	0.100	mg/L							U
Motor Oil Range Organics (C24-C38)	ND	0.200	mg/L							U
Surrogate: <i>o</i> -Terphenyl	0.228		mg/L	0.225	101		50-150			
LCS (BJC0294-BS1)				Prepared: 13-Mar-2021 Analyzed: 18-Mar-2021 16:55						
Diesel Range Organics (C12-C24)	2.68	0.100	mg/L	3.00		89.3	56-120			
Surrogate: <i>o</i> -Terphenyl	0.214		mg/L	0.225	94.9		50-150			
LCS Dup (BJC0294-BSD1)				Prepared: 13-Mar-2021 Analyzed: 18-Mar-2021 17:16						
Diesel Range Organics (C12-C24)	3.06	0.100	mg/L	3.00		102	56-120	13.30	30	
Surrogate: <i>o</i> -Terphenyl	0.517		mg/L	0.450	115		50-150			
Matrix Spike (BJC0294-MS1)				Source: 21C0139-01		Prepared: 13-Mar-2021 Analyzed: 18-Mar-2021 17:58				
Diesel Range Organics (C12-C24)	3.32	0.109	mg/L	3.26	ND	100	56-120			
Surrogate: <i>o</i> -Terphenyl	0.264		mg/L	0.245	0.238	108	50-150			
Recovery limits for target analytes in MS/MSD QC samples are advisory only.										
Matrix Spike Dup (BJC0294-MSD1)				Source: 21C0139-01		Prepared: 13-Mar-2021 Analyzed: 18-Mar-2021 18:19				
Diesel Range Organics (C12-C24)	2.74	0.110	mg/L	3.30	ND	81.5	56-120	19.10	30	
Surrogate: <i>o</i> -Terphenyl	0.442		mg/L	0.495	0.238	89.4	50-150			
Recovery limits for target analytes in MS/MSD QC samples are advisory only.										



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Certified Analyses included in this Report

Analyte	Certifications
EPA 8260D in Water	
Chloromethane	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
Chloromethane	DoD-ELAP,ADEC,NELAP,WADOE
Chloromethane	DoD-ELAP,ADEC,NELAP,CALAP
Chloromethane	DoD-ELAP,ADEC,CALAP,WADOE
Vinyl Chloride	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
Vinyl Chloride	DoD-ELAP,ADEC,NELAP,CALAP
Vinyl Chloride	DoD-ELAP,ADEC,CALAP,WADOE
Vinyl Chloride	DoD-ELAP,ADEC,NELAP,WADOE
Bromomethane	DoD-ELAP,ADEC,CALAP,WADOE
Bromomethane	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
Bromomethane	DoD-ELAP,ADEC,NELAP,CALAP
Bromomethane	DoD-ELAP,ADEC,NELAP,WADOE
Chloroethane	DoD-ELAP,ADEC,NELAP,CALAP
Chloroethane	DoD-ELAP,ADEC,CALAP,WADOE
Chloroethane	DoD-ELAP,ADEC,NELAP,WADOE
Chloroethane	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
Trichlorofluoromethane	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
Trichlorofluoromethane	DoD-ELAP,ADEC,NELAP,WADOE
Trichlorofluoromethane	DoD-ELAP,ADEC,CALAP,WADOE
Trichlorofluoromethane	DoD-ELAP,ADEC,NELAP,CALAP
Acrolein	DoD-ELAP,NELAP,CALAP
Acrolein	DoD-ELAP,NELAP,WADOE
Acrolein	DoD-ELAP,NELAP,CALAP,WADOE
Acrolein	DoD-ELAP,CALAP,WADOE
1,1,2-Trichloro-1,2,2-Trifluoroethane	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
1,1,2-Trichloro-1,2,2-Trifluoroethane	DoD-ELAP,ADEC,NELAP,CALAP
1,1,2-Trichloro-1,2,2-Trifluoroethane	DoD-ELAP,ADEC,CALAP,WADOE
1,1,2-Trichloro-1,2,2-Trifluoroethane	DoD-ELAP,ADEC,NELAP,WADOE
Acetone	DoD-ELAP,ADEC,NELAP,WADOE
Acetone	DoD-ELAP,ADEC,NELAP,CALAP
Acetone	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
Acetone	DoD-ELAP,ADEC,CALAP,WADOE
1,1-Dichloroethene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
1,1-Dichloroethene	DoD-ELAP,ADEC,NELAP,CALAP
1,1-Dichloroethene	DoD-ELAP,ADEC,NELAP,WADOE



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1,1-Dichloroethene	DoD-ELAP,ADEC,CALAP,WADOE
Iodomethane	DoD-ELAP,NELAP,CALAP
Iodomethane	DoD-ELAP,CALAP,WADOE
Iodomethane	DoD-ELAP,NELAP,WADOE
Iodomethane	DoD-ELAP,NELAP,CALAP,WADOE
Methylene Chloride	DoD-ELAP,ADEC,NELAP,WADOE
Methylene Chloride	DoD-ELAP,ADEC,CALAP,WADOE
Methylene Chloride	DoD-ELAP,ADEC,NELAP,CALAP
Methylene Chloride	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
Acrylonitrile	DoD-ELAP,NELAP,CALAP
Acrylonitrile	DoD-ELAP,CALAP,WADOE
Acrylonitrile	DoD-ELAP,NELAP,CALAP,WADOE
Acrylonitrile	DoD-ELAP,NELAP,WADOE
Carbon Disulfide	DoD-ELAP,CALAP,WADOE
Carbon Disulfide	DoD-ELAP,NELAP,CALAP
Carbon Disulfide	DoD-ELAP,NELAP,CALAP,WADOE
Carbon Disulfide	DoD-ELAP,NELAP,WADOE
trans-1,2-Dichloroethene	DoD-ELAP,ADEC,CALAP,WADOE
trans-1,2-Dichloroethene	DoD-ELAP,ADEC,NELAP,CALAP
trans-1,2-Dichloroethene	DoD-ELAP,ADEC,NELAP,WADOE
trans-1,2-Dichloroethene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
Vinyl Acetate	DoD-ELAP,NELAP,CALAP
Vinyl Acetate	DoD-ELAP,CALAP,WADOE
Vinyl Acetate	DoD-ELAP,NELAP,CALAP,WADOE
Vinyl Acetate	DoD-ELAP,NELAP,WADOE
1,1-Dichloroethane	DoD-ELAP,ADEC,CALAP,WADOE
1,1-Dichloroethane	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
1,1-Dichloroethane	DoD-ELAP,ADEC,NELAP,WADOE
1,1-Dichloroethane	DoD-ELAP,ADEC,NELAP,CALAP
2-Butanone	DoD-ELAP,CALAP,WADOE
2-Butanone	DoD-ELAP,NELAP,CALAP,WADOE
2-Butanone	DoD-ELAP,NELAP,CALAP
2-Butanone	DoD-ELAP,NELAP,WADOE
2,2-Dichloropropane	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
2,2-Dichloropropane	DoD-ELAP,ADEC,NELAP,CALAP
2,2-Dichloropropane	DoD-ELAP,ADEC,CALAP,WADOE
2,2-Dichloropropane	DoD-ELAP,ADEC,NELAP,WADOE
cis-1,2-Dichloroethene	DoD-ELAP,ADEC,CALAP,WADOE
cis-1,2-Dichloroethene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE



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cis-1,2-Dichloroethene	DoD-ELAP,ADEC,NELAP,CALAP
cis-1,2-Dichloroethene	DoD-ELAP,ADEC,NELAP,WADOE
Chloroform	DoD-ELAP,ADEC,CALAP,WADOE
Chloroform	DoD-ELAP,ADEC,NELAP,CALAP
Chloroform	DoD-ELAP,ADEC,NELAP,WADOE
Chloroform	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
Bromochloromethane	DoD-ELAP,ADEC,NELAP,WADOE
Bromochloromethane	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
Bromochloromethane	DoD-ELAP,ADEC,NELAP,CALAP
Bromochloromethane	DoD-ELAP,ADEC,CALAP,WADOE
1,1,1-Trichloroethane	DoD-ELAP,ADEC,NELAP,WADOE
1,1,1-Trichloroethane	DoD-ELAP,ADEC,CALAP,WADOE
1,1,1-Trichloroethane	DoD-ELAP,ADEC,NELAP,CALAP
1,1,1-Trichloroethane	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
1,1-Dichloropropene	DoD-ELAP,ADEC,NELAP,CALAP
1,1-Dichloropropene	DoD-ELAP,ADEC,CALAP,WADOE
1,1-Dichloropropene	DoD-ELAP,ADEC,NELAP,WADOE
1,1-Dichloropropene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
Carbon tetrachloride	DoD-ELAP,ADEC,NELAP,WADOE
Carbon tetrachloride	DoD-ELAP,ADEC,NELAP,CALAP
Carbon tetrachloride	DoD-ELAP,ADEC,CALAP,WADOE
Carbon tetrachloride	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
1,2-Dichloroethane	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
1,2-Dichloroethane	DoD-ELAP,ADEC,NELAP,CALAP
1,2-Dichloroethane	DoD-ELAP,ADEC,CALAP,WADOE
1,2-Dichloroethane	DoD-ELAP,ADEC,NELAP,WADOE
Benzene	DoD-ELAP,ADEC,CALAP,WADOE
Benzene	DoD-ELAP,ADEC,NELAP,CALAP
Benzene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
Benzene	DoD-ELAP,ADEC,NELAP,WADOE
Trichloroethene	DoD-ELAP,ADEC,CALAP,WADOE
Trichloroethene	DoD-ELAP,ADEC,NELAP,CALAP
Trichloroethene	DoD-ELAP,ADEC,NELAP,WADOE
Trichloroethene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
1,2-Dichloropropane	DoD-ELAP,ADEC,NELAP,CALAP
1,2-Dichloropropane	DoD-ELAP,ADEC,NELAP,WADOE
1,2-Dichloropropane	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
1,2-Dichloropropane	DoD-ELAP,ADEC,CALAP,WADOE
Bromodichloromethane	DoD-ELAP,ADEC,NELAP,CALAP



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Bromodichloromethane	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
Bromodichloromethane	DoD-ELAP,ADEC,CALAP,WADOE
Bromodichloromethane	DoD-ELAP,ADEC,NELAP,WADOE
Dibromomethane	DoD-ELAP,ADEC,NELAP,WADOE
Dibromomethane	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
Dibromomethane	DoD-ELAP,ADEC,CALAP,WADOE
Dibromomethane	DoD-ELAP,ADEC,NELAP,CALAP
2-Chloroethyl vinyl ether	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
2-Chloroethyl vinyl ether	DoD-ELAP,ADEC,NELAP,CALAP
2-Chloroethyl vinyl ether	DoD-ELAP,ADEC,CALAP,WADOE
2-Chloroethyl vinyl ether	DoD-ELAP,ADEC,NELAP,WADOE
4-Methyl-2-Pentanone	DoD-ELAP,NELAP,WADOE
4-Methyl-2-Pentanone	DoD-ELAP,NELAP,CALAP,WADOE
4-Methyl-2-Pentanone	DoD-ELAP,CALAP,WADOE
4-Methyl-2-Pentanone	DoD-ELAP,NELAP,CALAP
cis-1,3-Dichloropropene	DoD-ELAP,ADEC,NELAP,WADOE
cis-1,3-Dichloropropene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
cis-1,3-Dichloropropene	DoD-ELAP,ADEC,CALAP,WADOE
cis-1,3-Dichloropropene	DoD-ELAP,ADEC,NELAP,CALAP
Toluene	DoD-ELAP,ADEC,CALAP,WADOE
Toluene	DoD-ELAP,ADEC,NELAP,CALAP
Toluene	DoD-ELAP,ADEC,NELAP,WADOE
Toluene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
trans-1,3-Dichloropropene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
trans-1,3-Dichloropropene	DoD-ELAP,ADEC,CALAP,WADOE
trans-1,3-Dichloropropene	DoD-ELAP,ADEC,NELAP,WADOE
trans-1,3-Dichloropropene	DoD-ELAP,ADEC,NELAP,CALAP
2-Hexanone	DoD-ELAP,CALAP,WADOE
2-Hexanone	DoD-ELAP,NELAP,CALAP,WADOE
2-Hexanone	DoD-ELAP,NELAP,WADOE
2-Hexanone	DoD-ELAP,NELAP,CALAP
1,1,2-Trichloroethane	DoD-ELAP,ADEC,NELAP,WADOE
1,1,2-Trichloroethane	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
1,1,2-Trichloroethane	DoD-ELAP,ADEC,CALAP,WADOE
1,1,2-Trichloroethane	DoD-ELAP,ADEC,NELAP,CALAP
1,3-Dichloropropane	DoD-ELAP,ADEC,NELAP,WADOE
1,3-Dichloropropane	DoD-ELAP,ADEC,NELAP,CALAP
1,3-Dichloropropane	DoD-ELAP,ADEC,CALAP,WADOE
1,3-Dichloropropane	DoD-ELAP,ADEC,NELAP,CALAP,WADOE



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Tetrachloroethene	DoD-ELAP,ADEC,NELAP,WADOE
Tetrachloroethene	DoD-ELAP,ADEC,CALAP,WADOE
Tetrachloroethene	DoD-ELAP,ADEC,NELAP,CALAP
Tetrachloroethene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
Dibromochloromethane	DoD-ELAP,ADEC,NELAP,WADOE
Dibromochloromethane	DoD-ELAP,ADEC,CALAP,WADOE
Dibromochloromethane	DoD-ELAP,ADEC,NELAP,CALAP
Dibromochloromethane	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
1,2-Dibromoethane	DoD-ELAP,NELAP,WADOE
1,2-Dibromoethane	DoD-ELAP,NELAP,CALAP,WADOE
1,2-Dibromoethane	DoD-ELAP,NELAP,CALAP
1,2-Dibromoethane	DoD-ELAP,CALAP,WADOE
Chlorobenzene	DoD-ELAP,ADEC,NELAP,WADOE
Chlorobenzene	DoD-ELAP,ADEC,CALAP,WADOE
Chlorobenzene	DoD-ELAP,ADEC,NELAP,CALAP
Chlorobenzene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
Ethylbenzene	DoD-ELAP,ADEC,NELAP,CALAP
Ethylbenzene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
Ethylbenzene	DoD-ELAP,ADEC,CALAP,WADOE
Ethylbenzene	DoD-ELAP,ADEC,NELAP,WADOE
1,1,1,2-Tetrachloroethane	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
1,1,1,2-Tetrachloroethane	DoD-ELAP,ADEC,NELAP,CALAP
1,1,1,2-Tetrachloroethane	DoD-ELAP,ADEC,CALAP,WADOE
1,1,1,2-Tetrachloroethane	DoD-ELAP,ADEC,NELAP,WADOE
m,p-Xylene	DoD-ELAP,ADEC,NELAP,CALAP
m,p-Xylene	DoD-ELAP,ADEC,CALAP,WADOE
m,p-Xylene	DoD-ELAP,ADEC,NELAP,WADOE
m,p-Xylene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
o-Xylene	DoD-ELAP,ADEC,NELAP,WADOE
o-Xylene	DoD-ELAP,ADEC,CALAP,WADOE
o-Xylene	DoD-ELAP,ADEC,NELAP,CALAP
o-Xylene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
Styrene	DoD-ELAP,NELAP,WADOE
Styrene	DoD-ELAP,NELAP,CALAP,WADOE
Styrene	DoD-ELAP,CALAP,WADOE
Styrene	DoD-ELAP,NELAP,CALAP
Bromoform	DoD-ELAP,NELAP,WADOE
Bromoform	DoD-ELAP,CALAP,WADOE
Bromoform	DoD-ELAP,NELAP,CALAP



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Bromoform	DoD-ELAP,NELAP,CALAP,WADOE
1,1,2,2-Tetrachloroethane	DoD-ELAP,ADEC,NELAP,WADOE
1,1,2,2-Tetrachloroethane	DoD-ELAP,ADEC,CALAP,WADOE
1,1,2,2-Tetrachloroethane	DoD-ELAP,ADEC,NELAP,CALAP
1,1,2,2-Tetrachloroethane	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
1,2,3-Trichloropropane	DoD-ELAP,ADEC,NELAP,CALAP
1,2,3-Trichloropropane	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
1,2,3-Trichloropropane	DoD-ELAP,ADEC,NELAP,WADOE
1,2,3-Trichloropropane	DoD-ELAP,ADEC,CALAP,WADOE
trans-1,4-Dichloro 2-Butene	DoD-ELAP,ADEC,NELAP,CALAP
trans-1,4-Dichloro 2-Butene	DoD-ELAP,ADEC,CALAP,WADOE
trans-1,4-Dichloro 2-Butene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
trans-1,4-Dichloro 2-Butene	DoD-ELAP,ADEC,NELAP,WADOE
n-Propylbenzene	DoD-ELAP,NELAP,CALAP,WADOE
n-Propylbenzene	DoD-ELAP,NELAP,WADOE
n-Propylbenzene	DoD-ELAP,NELAP,CALAP
n-Propylbenzene	DoD-ELAP,CALAP,WADOE
Bromobenzene	DoD-ELAP,NELAP,CALAP,WADOE
Bromobenzene	DoD-ELAP,CALAP,WADOE
Bromobenzene	DoD-ELAP,NELAP,WADOE
Bromobenzene	DoD-ELAP,NELAP,CALAP
Isopropyl Benzene	DoD-ELAP,NELAP,CALAP,WADOE
Isopropyl Benzene	DoD-ELAP,NELAP,WADOE
Isopropyl Benzene	DoD-ELAP,CALAP,WADOE
Isopropyl Benzene	DoD-ELAP,NELAP,CALAP
2-Chlorotoluene	DoD-ELAP,ADEC,NELAP,CALAP
2-Chlorotoluene	DoD-ELAP,ADEC,NELAP,WADOE
2-Chlorotoluene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
2-Chlorotoluene	DoD-ELAP,ADEC,CALAP,WADOE
4-Chlorotoluene	DoD-ELAP,ADEC,NELAP,WADOE
4-Chlorotoluene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
4-Chlorotoluene	DoD-ELAP,ADEC,CALAP,WADOE
4-Chlorotoluene	DoD-ELAP,ADEC,NELAP,CALAP
t-Butylbenzene	DoD-ELAP,CALAP,WADOE
t-Butylbenzene	DoD-ELAP,NELAP,CALAP
t-Butylbenzene	DoD-ELAP,NELAP,WADOE
t-Butylbenzene	DoD-ELAP,NELAP,CALAP,WADOE
1,3,5-Trimethylbenzene	DoD-ELAP,NELAP,CALAP,WADOE
1,3,5-Trimethylbenzene	DoD-ELAP,NELAP,CALAP



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1,3,5-Trimethylbenzene	DoD-ELAP,NELAP,WADOE
1,3,5-Trimethylbenzene	DoD-ELAP,CALAP,WADOE
1,2,4-Trimethylbenzene	DoD-ELAP,NELAP,CALAP,WADOE
1,2,4-Trimethylbenzene	DoD-ELAP,NELAP,WADOE
1,2,4-Trimethylbenzene	DoD-ELAP,CALAP,WADOE
1,2,4-Trimethylbenzene	DoD-ELAP,NELAP,CALAP
s-Butylbenzene	DoD-ELAP,NELAP,CALAP,WADOE
s-Butylbenzene	DoD-ELAP,NELAP,CALAP
s-Butylbenzene	DoD-ELAP,CALAP,WADOE
s-Butylbenzene	DoD-ELAP,NELAP,WADOE
4-Isopropyl Toluene	DoD-ELAP,NELAP,WADOE
4-Isopropyl Toluene	DoD-ELAP,NELAP,CALAP
4-Isopropyl Toluene	DoD-ELAP,CALAP,WADOE
4-Isopropyl Toluene	DoD-ELAP,NELAP,CALAP,WADOE
1,3-Dichlorobenzene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
1,3-Dichlorobenzene	DoD-ELAP,ADEC,NELAP,WADOE
1,3-Dichlorobenzene	DoD-ELAP,ADEC,NELAP,CALAP
1,3-Dichlorobenzene	DoD-ELAP,ADEC,CALAP,WADOE
1,4-Dichlorobenzene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
1,4-Dichlorobenzene	DoD-ELAP,ADEC,NELAP,CALAP
1,4-Dichlorobenzene	DoD-ELAP,ADEC,CALAP,WADOE
1,4-Dichlorobenzene	DoD-ELAP,ADEC,NELAP,WADOE
n-Butylbenzene	DoD-ELAP,NELAP,WADOE
n-Butylbenzene	DoD-ELAP,CALAP,WADOE
n-Butylbenzene	DoD-ELAP,NELAP,CALAP
n-Butylbenzene	DoD-ELAP,NELAP,CALAP,WADOE
1,2-Dichlorobenzene	DoD-ELAP,ADEC,NELAP,CALAP
1,2-Dichlorobenzene	DoD-ELAP,ADEC,NELAP,WADOE
1,2-Dichlorobenzene	DoD-ELAP,ADEC,CALAP,WADOE
1,2-Dichlorobenzene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
1,2-Dibromo-3-chloropropane	DoD-ELAP,ADEC,NELAP,WADOE
1,2-Dibromo-3-chloropropane	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
1,2-Dibromo-3-chloropropane	DoD-ELAP,ADEC,NELAP,CALAP
1,2-Dibromo-3-chloropropane	DoD-ELAP,ADEC,CALAP,WADOE
1,2,4-Trichlorobenzene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
1,2,4-Trichlorobenzene	DoD-ELAP,ADEC,NELAP,CALAP
1,2,4-Trichlorobenzene	DoD-ELAP,ADEC,CALAP,WADOE
1,2,4-Trichlorobenzene	DoD-ELAP,ADEC,NELAP,WADOE
Hexachloro-1,3-Butadiene	DoD-ELAP,ADEC,NELAP,CALAP



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Hexachloro-1,3-Butadiene	DoD-ELAP,ADEC,CALAP,WADOE
Hexachloro-1,3-Butadiene	DoD-ELAP,ADEC,NELAP,WADOE
Hexachloro-1,3-Butadiene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
Naphthalene	DoD-ELAP,ADEC,NELAP,CALAP
Naphthalene	DoD-ELAP,ADEC,NELAP,WADOE
Naphthalene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
Naphthalene	DoD-ELAP,ADEC,CALAP,WADOE
1,2,3-Trichlorobenzene	DoD-ELAP,ADEC,NELAP,CALAP
1,2,3-Trichlorobenzene	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
1,2,3-Trichlorobenzene	DoD-ELAP,ADEC,CALAP,WADOE
1,2,3-Trichlorobenzene	DoD-ELAP,ADEC,NELAP,WADOE
Dichlorodifluoromethane	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
Dichlorodifluoromethane	DoD-ELAP,ADEC,NELAP,CALAP
Dichlorodifluoromethane	DoD-ELAP,ADEC,CALAP,WADOE
Dichlorodifluoromethane	DoD-ELAP,ADEC,NELAP,WADOE
Methyl tert-butyl Ether	DoD-ELAP,ADEC,CALAP,WADOE
Methyl tert-butyl Ether	DoD-ELAP,ADEC,NELAP,WADOE
Methyl tert-butyl Ether	DoD-ELAP,ADEC,NELAP,CALAP
Methyl tert-butyl Ether	DoD-ELAP,ADEC,NELAP,CALAP,WADOE
n-Hexane	WADOE
n-Hexane	WADOE
n-Hexane	
n-Hexane	WADOE
2-Pentanone	WADOE
2-Pentanone	WADOE
2-Pentanone	
2-Pentanone	WADOE

EPA 8270E-SIM in Water

Naphthalene	ADEC,DoD-ELAP,NELAP,WADOE
Naphthalene	ADEC,DoD-ELAP,NELAP,CALAP,WADOE
Naphthalene	ADEC,DoD-ELAP,CALAP,WADOE
Naphthalene	ADEC,DoD-ELAP,NELAP,CALAP
2-Methylnaphthalene	ADEC,DoD-ELAP,NELAP,CALAP
2-Methylnaphthalene	ADEC,DoD-ELAP,NELAP,CALAP
2-Methylnaphthalene	ADEC,DoD-ELAP,CALAP
2-Methylnaphthalene	ADEC,DoD-ELAP,NELAP
1-Methylnaphthalene	ADEC,DoD-ELAP,NELAP,CALAP,WADOE
1-Methylnaphthalene	ADEC,DoD-ELAP,NELAP,CALAP
1-Methylnaphthalene	ADEC,DoD-ELAP,CALAP,WADOE



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1-Methylnaphthalene	ADEC,DoD-ELAP,NELAP,WADOE
Biphenyl	NELAP
Biphenyl	
Biphenyl	NELAP
Biphenyl	NELAP
Acenaphthylene	ADEC,DoD-ELAP,NELAP,CALAP,WADOE
Acenaphthylene	ADEC,DoD-ELAP,NELAP,WADOE
Acenaphthylene	ADEC,DoD-ELAP,CALAP,WADOE
Acenaphthylene	ADEC,DoD-ELAP,NELAP,CALAP
Acenaphthene	ADEC,DoD-ELAP,NELAP,CALAP,WADOE
Acenaphthene	ADEC,DoD-ELAP,NELAP,CALAP
Acenaphthene	ADEC,DoD-ELAP,CALAP,WADOE
Acenaphthene	ADEC,DoD-ELAP,NELAP,WADOE
Dibenzofuran	ADEC,DoD-ELAP,CALAP
Dibenzofuran	ADEC,DoD-ELAP,NELAP,CALAP
Dibenzofuran	ADEC,DoD-ELAP,NELAP,CALAP
Dibenzofuran	ADEC,DoD-ELAP,NELAP
Fluorene	ADEC,DoD-ELAP,NELAP,WADOE
Fluorene	ADEC,DoD-ELAP,NELAP,CALAP
Fluorene	ADEC,DoD-ELAP,NELAP,CALAP,WADOE
Fluorene	ADEC,DoD-ELAP,CALAP,WADOE
Phenanthrene	ADEC,DoD-ELAP,NELAP,CALAP
Phenanthrene	ADEC,DoD-ELAP,CALAP,WADOE
Phenanthrene	ADEC,DoD-ELAP,NELAP,WADOE
Phenanthrene	ADEC,DoD-ELAP,NELAP,CALAP,WADOE
Anthracene	ADEC,DoD-ELAP,NELAP,CALAP,WADOE
Anthracene	ADEC,DoD-ELAP,NELAP,WADOE
Anthracene	ADEC,DoD-ELAP,CALAP,WADOE
Anthracene	ADEC,DoD-ELAP,NELAP,CALAP
Carbazole	NELAP
Carbazole	
Carbazole	NELAP
Carbazole	NELAP
Fluoranthene	ADEC,DoD-ELAP,NELAP,WADOE
Fluoranthene	ADEC,DoD-ELAP,CALAP,WADOE
Fluoranthene	ADEC,DoD-ELAP,NELAP,CALAP
Fluoranthene	ADEC,DoD-ELAP,NELAP,CALAP,WADOE
Pyrene	ADEC,DoD-ELAP,NELAP,CALAP,WADOE
Pyrene	ADEC,DoD-ELAP,CALAP,WADOE



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Pyrene	ADEC,DoD-ELAP,NELAP,WADOE
Pyrene	ADEC,DoD-ELAP,NELAP,CALAP
Benzo(a)anthracene	ADEC,DoD-ELAP,CALAP,WADOE
Benzo(a)anthracene	ADEC,DoD-ELAP,NELAP,WADOE
Benzo(a)anthracene	ADEC,DoD-ELAP,NELAP,CALAP
Benzo(a)anthracene	ADEC,DoD-ELAP,NELAP,CALAP,WADOE
Chrysene	ADEC,DoD-ELAP,NELAP,CALAP,WADOE
Chrysene	ADEC,DoD-ELAP,NELAP,CALAP
Chrysene	ADEC,DoD-ELAP,CALAP,WADOE
Chrysene	ADEC,DoD-ELAP,NELAP,WADOE
Benzo(b)fluoranthene	ADEC,DoD-ELAP,NELAP,CALAP,WADOE
Benzo(b)fluoranthene	ADEC,DoD-ELAP,NELAP,WADOE
Benzo(b)fluoranthene	ADEC,DoD-ELAP,CALAP,WADOE
Benzo(b)fluoranthene	ADEC,DoD-ELAP,NELAP,CALAP
Benzo(k)fluoranthene	ADEC,DoD-ELAP,NELAP,WADOE
Benzo(k)fluoranthene	ADEC,DoD-ELAP,NELAP,CALAP,WADOE
Benzo(k)fluoranthene	ADEC,DoD-ELAP,NELAP,CALAP
Benzo(k)fluoranthene	ADEC,DoD-ELAP,CALAP,WADOE
Benzo(j)fluoranthene	ADEC,DoD-ELAP,WADOE
Benzo(j)fluoranthene	ADEC,DoD-ELAP,NELAP,WADOE
Benzo(j)fluoranthene	ADEC,DoD-ELAP,NELAP
Benzo(j)fluoranthene	ADEC,DoD-ELAP,NELAP,WADOE
Benzo(e)pyrene	NELAP
Benzo(e)pyrene	NELAP
Benzo(e)pyrene	NELAP
Benzo(e)pyrene	
Benzo(a)pyrene	ADEC,DoD-ELAP,NELAP,WADOE
Benzo(a)pyrene	ADEC,DoD-ELAP,CALAP,WADOE
Benzo(a)pyrene	ADEC,DoD-ELAP,NELAP,CALAP,WADOE
Benzo(a)pyrene	ADEC,DoD-ELAP,NELAP,CALAP
Perylene	ADEC,NELAP
Perylene	ADEC,CALAP
Perylene	ADEC,NELAP,CALAP
Perylene	ADEC,NELAP,CALAP
Indeno(1,2,3-cd)pyrene	ADEC,DoD-ELAP,NELAP,WADOE
Indeno(1,2,3-cd)pyrene	ADEC,DoD-ELAP,CALAP,WADOE
Indeno(1,2,3-cd)pyrene	ADEC,DoD-ELAP,NELAP,CALAP,WADOE
Indeno(1,2,3-cd)pyrene	ADEC,DoD-ELAP,NELAP,CALAP
Dibenzo(a,h)anthracene	ADEC,DoD-ELAP,NELAP,WADOE



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Dibenzo(a,h)anthracene	ADEC,DoD-ELAP,CALAP,WADOE
Dibenzo(a,h)anthracene	ADEC,DoD-ELAP,NELAP,CALAP,WADOE
Dibenzo(a,h)anthracene	ADEC,DoD-ELAP,NELAP,CALAP
Benzo(g,h,i)perylene	ADEC,DoD-ELAP,NELAP,CALAP
Benzo(g,h,i)perylene	ADEC,DoD-ELAP,NELAP,CALAP,WADOE
Benzo(g,h,i)perylene	ADEC,DoD-ELAP,NELAP,WADOE
Benzo(g,h,i)perylene	ADEC,DoD-ELAP,CALAP,WADOE

NWTPH-Dx in Water

Diesel Range Organics (C12-C24)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (C12-C24)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (C12-C24)	DoD-ELAP,WADOE
Diesel Range Organics (C12-C24)	DoD-ELAP,NELAP
Diesel Range Organics (C10-C25)	DoD-ELAP,WADOE
Diesel Range Organics (C10-C25)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (C10-C25)	DoD-ELAP,NELAP
Diesel Range Organics (C10-C25)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (Tol-C18)	DoD-ELAP,NELAP
Diesel Range Organics (Tol-C18)	DoD-ELAP,WADOE
Diesel Range Organics (Tol-C18)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (Tol-C18)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (C10-C24)	DoD-ELAP,WADOE
Diesel Range Organics (C10-C24)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (C10-C24)	DoD-ELAP,NELAP
Diesel Range Organics (C10-C24)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (C10-C28)	DoD-ELAP,NELAP
Diesel Range Organics (C10-C28)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (C10-C28)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (C10-C28)	DoD-ELAP,WADOE
Diesel Range Organics (C12-C22)	DoD-ELAP
Diesel Range Organics (C12-C22)	DoD-ELAP
Diesel Range Organics (C12-C22)	DoD-ELAP
Diesel Range Organics (C12-C22)	DoD-ELAP
Diesel Range Organics (C12-C25)	DoD-ELAP
Diesel Range Organics (C12-C25)	DoD-ELAP
Diesel Range Organics (C12-C25)	DoD-ELAP
Diesel Range Organics (C12-C25)	DoD-ELAP
Motor Oil Range Organics (C24-C38)	DoD-ELAP,NELAP,WADOE
Motor Oil Range Organics (C24-C38)	DoD-ELAP,WADOE
Motor Oil Range Organics (C24-C38)	DoD-ELAP,NELAP



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Motor Oil Range Organics (C24-C38)	DoD-ELAP,NELAP,WADOE
Motor Oil Range Organics (C25-C36)	DoD-ELAP,NELAP,WADOE
Motor Oil Range Organics (C25-C36)	DoD-ELAP,NELAP,WADOE
Motor Oil Range Organics (C25-C36)	DoD-ELAP,NELAP
Motor Oil Range Organics (C25-C36)	DoD-ELAP,WADOE
Motor Oil Range Organics (C24-C40)	DoD-ELAP,NELAP,WADOE
Motor Oil Range Organics (C24-C40)	DoD-ELAP,NELAP
Motor Oil Range Organics (C24-C40)	DoD-ELAP,WADOE
Motor Oil Range Organics (C24-C40)	DoD-ELAP,NELAP,WADOE
Residual Range Organics (C23-C32)	DoD-ELAP
Residual Range Organics (C23-C32)	DoD-ELAP
Residual Range Organics (C23-C32)	DoD-ELAP
Residual Range Organics (C23-C32)	DoD-ELAP
Mineral Spirits Range Organics (Tol-C12)	DoD-ELAP,NELAP,WADOE
Mineral Spirits Range Organics (Tol-C12)	DoD-ELAP,WADOE
Mineral Spirits Range Organics (Tol-C12)	DoD-ELAP,NELAP
Mineral Spirits Range Organics (Tol-C12)	DoD-ELAP,NELAP,WADOE
Mineral Oil Range Organics (C16-C28)	DoD-ELAP,NELAP
Mineral Oil Range Organics (C16-C28)	DoD-ELAP,NELAP,WADOE
Mineral Oil Range Organics (C16-C28)	DoD-ELAP,WADOE
Mineral Oil Range Organics (C16-C28)	DoD-ELAP,NELAP,WADOE
Kerosene Range Organics (Tol-C18)	DoD-ELAP,NELAP
Kerosene Range Organics (Tol-C18)	DoD-ELAP,NELAP,WADOE
Kerosene Range Organics (Tol-C18)	DoD-ELAP,WADOE
Kerosene Range Organics (Tol-C18)	DoD-ELAP,NELAP,WADOE
JP8 Range Organics (C8-C18)	DoD-ELAP,NELAP,WADOE
JP8 Range Organics (C8-C18)	DoD-ELAP,NELAP,WADOE
JP8 Range Organics (C8-C18)	DoD-ELAP,NELAP
JP8 Range Organics (C8-C18)	DoD-ELAP,WADOE
JP5 Range Organics (C10-C16)	DoD-ELAP,NELAP,WADOE
JP5 Range Organics (C10-C16)	DoD-ELAP,WADOE
JP5 Range Organics (C10-C16)	DoD-ELAP,NELAP,WADOE
JP5 Range Organics (C10-C16)	DoD-ELAP,NELAP
JP4 Range Organics (Tol-C14)	DoD-ELAP,NELAP,WADOE
JP4 Range Organics (Tol-C14)	DoD-ELAP,NELAP
JP4 Range Organics (Tol-C14)	DoD-ELAP,WADOE
JP4 Range Organics (Tol-C14)	DoD-ELAP,NELAP,WADOE
Jet-A Range Organics (C10-C18)	DoD-ELAP,NELAP,WADOE
Jet-A Range Organics (C10-C18)	DoD-ELAP,NELAP,WADOE



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Jet-A Range Organics (C10-C18)	DoD-ELAP,NELAP
Jet-A Range Organics (C10-C18)	DoD-ELAP,WADOE
Creosote Range Organics (C12-C22)	DoD-ELAP,WADOE
Creosote Range Organics (C12-C22)	DoD-ELAP,NELAP,WADOE
Creosote Range Organics (C12-C22)	DoD-ELAP,NELAP
Creosote Range Organics (C12-C22)	DoD-ELAP,NELAP,WADOE
Bunker C Range Organics (C10-C38)	DoD-ELAP,NELAP,WADOE
Bunker C Range Organics (C10-C38)	DoD-ELAP,NELAP,WADOE
Bunker C Range Organics (C10-C38)	DoD-ELAP,WADOE
Bunker C Range Organics (C10-C38)	DoD-ELAP,NELAP
Stoddard Range Organics (C8-C12)	DoD-ELAP,NELAP,WADOE
Stoddard Range Organics (C8-C12)	DoD-ELAP,WADOE
Stoddard Range Organics (C8-C12)	DoD-ELAP,NELAP
Stoddard Range Organics (C8-C12)	DoD-ELAP,NELAP,WADOE
Transformer Oil Range Organics (C12-C28)	DoD-ELAP,NELAP,WADOE
Transformer Oil Range Organics (C12-C28)	DoD-ELAP,NELAP,WADOE
Transformer Oil Range Organics (C12-C28)	DoD-ELAP,WADOE
Transformer Oil Range Organics (C12-C28)	DoD-ELAP,NELAP

NWTPHg in Water

Gasoline Range Organics (Tol-Nap)	WADOE,DoD-ELAP
Gasoline Range Organics (Tol-Nap)	WADOE,DoD-ELAP
Gasoline Range Organics (Tol-Nap)	WADOE,DoD-ELAP
Gasoline Range Organics (Tol-Nap)	DoD-ELAP
Gasoline Range Organics (2MP-TMB)	WADOE,DoD-ELAP
Gasoline Range Organics (2MP-TMB)	WADOE,DoD-ELAP
Gasoline Range Organics (2MP-TMB)	DoD-ELAP
Gasoline Range Organics (2MP-TMB)	WADOE,DoD-ELAP
Gasoline Range Organics (Tol-C12)	DoD-ELAP
Gasoline Range Organics (Tol-C12)	WADOE,DoD-ELAP
Gasoline Range Organics (Tol-C12)	WADOE,DoD-ELAP
Gasoline Range Organics (Tol-C12)	WADOE,DoD-ELAP
Gasoline Range Organics (C6-C10)	WADOE,ADEC,DoD-ELAP
Gasoline Range Organics (C6-C10)	WADOE,ADEC,DoD-ELAP
Gasoline Range Organics (C6-C10)	ADEC,DoD-ELAP
Gasoline Range Organics (C6-C10)	WADOE,ADEC,DoD-ELAP
Gasoline Range Organics (C5-C12)	DoD-ELAP
Gasoline Range Organics (C5-C12)	WADOE,DoD-ELAP
Gasoline Range Organics (C5-C12)	WADOE,DoD-ELAP
Gasoline Range Organics (C5-C12)	WADOE,DoD-ELAP



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Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2023
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program	66169	02/28/2022



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Notes and Definitions

- * Flagged value is not within established control limits.
- B This analyte was detected in the method blank.
- D The reported value is from a dilution
- E The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL)
- U This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- [2C] Indicates this result was quantified on the second column on a dual column analysis.

Memo



1111 3rd Avenue, Suite 1600
Seattle, Washington 98101
206.438.2700 Telephone
206.438.2699 Fax

To:	Karen Mixon, Project Manager	Info:	Final
From:	Chelsey Cook, Chemist Lucy Panteleeff, Chemist	Date:	July 13, 2021
RE:	Data Quality Review Quarterly Groundwater Samples – June 2021 Laurel Station Cleanup Action		

The data quality review of 1 groundwater sample and 1 trip blank collected on June 22, 2021, has been completed. The samples were analyzed by Analytical Resources, Incorporated (ARI) located in Tukwila, Washington for benzene, toluene, ethylbenzene, m,p-xylene, and o-xylene (BTEX) by EPA Method 8260D, total petroleum hydrocarbons (TPHs) by Washington State Department of Ecology (Ecology) Methods NWTPH-Gx (gasoline-range TPH) and NWTPH-Dx (diesel-range and motor oil-range TPH), and/or polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270E-SIM. Samples were analyzed for the chemical constituents as described in the *Final Compliance Monitoring Plan, Laurel Station, 1009 East Smith Road, Bellingham, Washington* dated January 16, 2015 (CMP). Due to changes in laboratory procedures, NWTPH-Gx analysis was performed using GC/MS instrumentation instead of GC/FID.

The analyses were performed in general accordance with methods specified in EPA's *Test Methods for Evaluating Solid Waste (SW-846)* and Ecology's *Analytical Methods for Petroleum Hydrocarbons*, June 1997. The laboratory provided a full data package containing sample results and associated QA/QC data. The following samples are associated with ARI group 21F0362:

Sample ID	Laboratory ID
MW-6	21F0362-01
Trip Blank	21F0362-02

The following comments refer to ARI's performance in meeting the quality control specifications described in the analytical methods. Data were qualified based on the method criteria and guidance provided in the EPA document *USEPA National Functional Guidelines for Organic Superfund Methods Data Review*, January 2017. Data qualifiers that may be assigned to data from this laboratory group include:

- U - The analyte was analyzed for but was not detected above the reported sample quantitation limit.
- J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

- DNR - Do Not Report. Multiple results reported from different analytical dates and/or dilutions. Value from another analysis should be used.

Sample Receipt

Upon receipt by ARI, the sample jar information was compared to the chain-of-custody (COC) and the cooler temperature was recorded. The cooler was received at a temperature outside the EPA-recommended limits of greater than 0°C and less than or equal to 6°C at 11.4°C. Data were not qualified based on the elevated cooler temperature. No issues related to sample identification were noted by ARI. The laboratory noted that one sample vial for MW-6 was received with air bubbles. No air bubbles were noted at the time of analysis; therefore, data were not qualified based on the presence of air bubbles at the time of receipt.

Organic Analyses

Samples were analyzed for BTEX, TPHs, and PAHs by the methods identified in the introduction to this report.

1. Holding Times – Acceptable
2. Instrument Performance and Calibrations (initial and continuing) – Acceptable except as noted below:

PAHs by Method 8270E-SIM – The laboratory noted that the percent difference for benzo(g,h,i)perylene (51.1%) exceeded the method limits of ±20% in the continuing calibration verification (CCV) associated with analytical batch BJF0669. Benzo(g,h,i)perylene was not detected in the associated samples; therefore, data were not qualified based on the elevated CCV result.

3. Blanks – Acceptable
4. Surrogates – Acceptable
5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) – Acceptable except as noted below:

PAHs by Method 8270E-SIM – The percent recovery for benzo(g,h,i)perylene in the LCSD (123%) was above the control limits of 38-120%. The percent recovery in the LCS and the relative percent difference (RPD) for the LCS/LCSD pair were acceptable; therefore, data were not qualified based on the LCSD recovery.

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

VOCs by Method 8260D – An MS/MSD was performed using MW-6. Results were acceptable.

General – MS/MSDs were not performed in associated with NWTPH-Gx, NWTPH-Dx, and EPA 8270E-SIM analyses. Accuracy and precision were assessed using the LCS/LCSDs.

7. Reporting Limits – Acceptable

Overall Assessment of Data

The data reported in this laboratory group are considered usable for meeting project objectives. The completeness for laboratory group 21F0362 is 100%.

Table 1. Summary of Qualified Data

Sample ID	ARI ID	Analyte	Result	Units	Final Result
No data qualifiers were assigned to the results reported in laboratory group 21F0362 during validation.					



10 July 2021

Karen Mixon
AECOM
1111 Third Avenue, Suite 1600
Seattle, WA 98101

RE: Laurel Station

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
21F0362

Associated SDG ID(s)
N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Chain of Custody Record & Laboratory Analysis Request



Analytical Resources, Incorporated
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)
 www.arilabs.com

ARI Assigned Number: 21F0362	Turn-around Requested:	Page: 1 of 1
ARI Client Company: AECOM	Phone: 206 438-2700	Date: 6/22/21 Ice Present?
Client Contact: Karen Mixon	No. of Coolers: 1	Cooler Temps: 11.4

Client Project Name: Laurel Station	Analysis Requested				Notes/Comments
Client Project #:	Samplers: Lucy Panteleeff	NWTPH-Lv	BRK	NWTPH-Dx	Low level PAH

Sample ID	Date	Time	Matrix	No. Containers	NWTPH-Lv	BRK	NWTPH-Dx	Low level PAH						
MW-6	6/22/21	14:07	W	7	X	X	X	X						
Trip Blank	6/22/21		W	2	X	X								

Comments/Special Instructions	Relinquished by: (Signature) Lucy Panteleeff	Received by: (Signature) [Signature]	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: Lucy Panteleeff	Printed Name: Samantha Lodon	Printed Name:	Printed Name:
	Company: AECOM	Company: ARI	Company:	Company:
	Date & Time: 6/22/21 18:02	Date & Time: 6/23/21 1343	Date & Time:	Date & Time:

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, notwithstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.



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Project: Laurel Station
Project Number: Laurel Station
Project Manager: Karen Mixon

Reported:
10-Jul-2021 12:52

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-6	21F0362-01	Water	22-Jun-2021 14:07	23-Jun-2021 13:43
Trip Blank	21F0362-02	Water	22-Jun-2021 14:07	23-Jun-2021 13:43



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Project: Laurel Station
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Reported:
10-Jul-2021 12:52

Work Order Case Narrative

Gasoline by NWTPH-g (GC/MS)

The sample(s) were analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

Volatiles - EPA Method SW8260D

The sample(s) were analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

Polynuclear Aromatic Hydrocarbons (PAH) - EPA Method SW8270E-SIM

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements with the exception of all associated "Q" flagged analytes which are out of control high in the CCAL. All associated samples that contain analyte have been flagged with a "Q" qualifier.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.



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Project Number: Laurel Station
Project Manager: Karen Mixon

Reported:
10-Jul-2021 12:52

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits with the exception of analytes flagged on the associated forms.

Diesel/Heavy Oil Range Organics - WA-Ecology Method NW-TPHDx

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.



Cooler Receipt Form

ARI Client: AF COM

Project Name: Laurel Station

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 21F0362

Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO

Were custody papers included with the cooler? YES NO

Were custody papers properly filled out (ink, signed, etc.) YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1420 11.4

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: DOO 5206

Cooler Accepted by: SC Date: 6/23/21 Time: 1343

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA YES NO

How were bottles sealed in plastic bags? Individually Grouped Not

Did all bottles arrive in good condition (unbroken)? YES NO

Were all bottle labels complete and legible? YES NO

Did the number of containers listed on COC match with the number of containers received? YES NO

Did all bottle labels and tags agree with custody papers? YES NO

Were all bottles used correct for the requested analyses? YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ... NA YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI... NA 3/3/21

Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: SC Date: 6/23/21 Time: 1503 Labels checked by: SC

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

Samples 21F0362-01F/01G had air bubbles.

By: SC Date: 6/23/21



Cooler Temperature Compliance Form

ARI Work Order: 21F0362

Cooler#: _____ Temperature(°C): 11.4

Sample ID	Bottle Count	Bottle Type
<u>Samples received above 6°C</u>		

Cooler#: _____ Temperature(°C): _____

Sample ID	Bottle Count	Bottle Type

Cooler#: _____ Temperature(°C): _____

Sample ID	Bottle Count	Bottle Type

Cooler#: _____ Temperature(°C): _____

Sample ID	Bottle Count	Bottle Type

Completed by: SC Date: 6/23/21 Time: 1420



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Project: Laurel Station
Project Number: Laurel Station
Project Manager: Karen Mixon

Reported:
10-Jul-2021 12:52

MW-6
21F0362-01 (Water)

Volatile Organic Compounds

Method: EPA 8260D

Sampled: 06/22/2021 14:07

Instrument: NT2 Analyst: PKC

Analyzed: 06/23/2021 20:53

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 21F0362-01 E

Preparation Batch: BJF0536

Sample Size: 10 mL

Prepared: 06/23/2021

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Benzene	71-43-2	1	0.20	ND	ug/L	U
Toluene	108-88-3	1	0.20	ND	ug/L	U
Ethylbenzene	100-41-4	1	0.20	ND	ug/L	U
m,p-Xylene	179601-23-1	1	0.40	ND	ug/L	U
o-Xylene	95-47-6	1	0.20	ND	ug/L	U
<i>Surrogate: 1,2-Dichloroethane-d4</i>			80-129 %	102	%	
<i>Surrogate: Toluene-d8</i>			80-120 %	94.7	%	
<i>Surrogate: 4-Bromofluorobenzene</i>			80-120 %	95.0	%	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>			80-120 %	102	%	



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Project: Laurel Station
Project Number: Laurel Station
Project Manager: Karen Mixon

Reported:
10-Jul-2021 12:52

MW-6
21F0362-01 (Water)

Volatile Organic Compounds

Method: NWTPHg Sampled: 06/22/2021 14:07
Instrument: NT2 Analyst: PKC Analyzed: 06/23/2021 20:53

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) Extract ID: 21F0362-01 E
Preparation Batch: BJF0536 Sample Size: 10 mL
Prepared: 06/23/2021 Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Gasoline Range Organics (Tol-Nap)	GRO	1	100	ND	ug/L	U
Surrogate: Toluene-d8			80-120 %	94.7	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	95.0	%	



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Project Number: Laurel Station
Project Manager: Karen Mixon

Reported:
10-Jul-2021 12:52

MW-6
21F0362-01 (Water)

Semivolatile Organic Compounds - SIM

Method: EPA 8270E-SIM		Sampled: 06/22/2021 14:07
Instrument: NT11 Analyst: VTS		Analyzed: 07/09/2021 13:14
Sample Preparation:	Preparation Method: EPA 3510C SepF Preparation Batch: BJF0669 Prepared: 06/29/2021	Sample Size: 500 mL Final Volume: 0.5 mL Extract ID: 21F0362-01 C 01
Sample Cleanup:	Cleanup Method: Silica Gel Cleanup Batch: CJG0067 Cleaned: 07-Jul-2021	Initial Volume: 0.5 mL Final Volume: 0.5 mL Extract ID: 21F0362-01 C 01

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Naphthalene	91-20-3	1	0.010	0.034	ug/L	
2-Methylnaphthalene	91-57-6	1	0.010	0.011	ug/L	
1-Methylnaphthalene	90-12-0	1	0.010	ND	ug/L	U
Acenaphthylene	208-96-8	1	0.010	ND	ug/L	U
Acenaphthene	83-32-9	1	0.010	ND	ug/L	U
Dibenzofuran	132-64-9	1	0.010	ND	ug/L	U
Fluorene	86-73-7	1	0.010	ND	ug/L	U
Phenanthrene	85-01-8	1	0.010	0.014	ug/L	
Anthracene	120-12-7	1	0.010	ND	ug/L	U
Fluoranthene	206-44-0	1	0.010	ND	ug/L	U
Pyrene	129-00-0	1	0.010	ND	ug/L	U
Benzo(a)anthracene	56-55-3	1	0.010	ND	ug/L	U
Chrysene	218-01-9	1	0.010	ND	ug/L	U
Benzo(b)fluoranthene	205-99-2	1	0.010	ND	ug/L	U
Benzo(k)fluoranthene	207-08-9	1	0.010	ND	ug/L	U
Benzo(a)pyrene	50-32-8	1	0.010	ND	ug/L	U
Indeno(1,2,3-cd)pyrene	193-39-5	1	0.010	ND	ug/L	U
Dibenzo(a,h)anthracene	53-70-3	1	0.010	ND	ug/L	U
Benzo(g,h,i)perylene	191-24-2	1	0.010	ND	ug/L	U
<i>Surrogate: 2-Methylnaphthalene-d10</i>			42-120 %	72.3	%	
<i>Surrogate: Dibenzo[a,h]anthracene-d14</i>			29-120 %	48.5	%	
<i>Surrogate: Fluoranthene-d10</i>			57-120 %	93.4	%	



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Project: Laurel Station
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Project Manager: Karen Mixon

Reported:
10-Jul-2021 12:52

MW-6
21F0362-01 (Water)

Petroleum Hydrocarbons

Method: NWTPH-Dx

Sampled: 06/22/2021 14:07

Instrument: FID4 Analyst: CTO

Analyzed: 06/28/2021 17:59

Sample Preparation:

Preparation Method: EPA 3510C SepF

Extract ID: 21F0362-01 A 01

Preparation Batch: BJF0664

Sample Size: 500 mL

Prepared: 06/24/2021

Final Volume: 1 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Diesel Range Organics (C12-C24)	DRO	1	0.100	ND	mg/L	U
Motor Oil Range Organics (C24-C38)	RRO	1	0.200	ND	mg/L	U
<i>Surrogate: o-Terphenyl</i>			50-150 %	81.0	%	



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Reported:
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Trip Blank
21F0362-02 (Water)

Volatile Organic Compounds

Method: EPA 8260D

Sampled: 06/22/2021 14:07

Instrument: NT2 Analyst: PKC

Analyzed: 06/23/2021 21:13

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 21F0362-02 B

Preparation Batch: BJF0536

Sample Size: 10 mL

Prepared: 06/23/2021

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Benzene	71-43-2	1	0.20	ND	ug/L	U
Toluene	108-88-3	1	0.20	ND	ug/L	U
Ethylbenzene	100-41-4	1	0.20	ND	ug/L	U
m,p-Xylene	179601-23-1	1	0.40	ND	ug/L	U
o-Xylene	95-47-6	1	0.20	ND	ug/L	U
<i>Surrogate: 1,2-Dichloroethane-d4</i>			80-129 %	105	%	
<i>Surrogate: Toluene-d8</i>			80-120 %	97.0	%	
<i>Surrogate: 4-Bromofluorobenzene</i>			80-120 %	93.5	%	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>			80-120 %	100	%	



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Reported:
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Trip Blank
21F0362-02 (Water)

Volatile Organic Compounds

Method: NWTPHg Sampled: 06/22/2021 14:07
Instrument: NT2 Analyst: PKC Analyzed: 06/23/2021 21:13
Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) Extract ID: 21F0362-02 B
Preparation Batch: BJF0536 Sample Size: 10 mL
Prepared: 06/23/2021 Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Gasoline Range Organics (Tol-Nap)	GRO	1	100	ND	ug/L	U
Surrogate: Toluene-d8			80-120 %	97.0	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	93.5	%	



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Project: Laurel Station
Project Number: Laurel Station
Project Manager: Karen Mixon

Reported:
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Volatile Organic Compounds - Quality Control

Batch BJF0536 - EPA 5030C (Purge and Trap)

Instrument: NT2 Analyst: PKC

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJF0536-BLK1)										
					Prepared: 23-Jun-2021		Analyzed: 23-Jun-2021 13:22			
Gasoline Range Organics (Tol-Nap)	ND	100	ug/L							U
Surrogate: Toluene-d8	4.87		ug/L	5.00		97.3	80-120			
Surrogate: 4-Bromofluorobenzene	4.72		ug/L	5.00		94.4	80-120			
Blank (BJF0536-BLK2)										
					Prepared: 23-Jun-2021		Analyzed: 23-Jun-2021 13:22			
Benzene	ND	0.20	ug/L							U
Toluene	ND	0.20	ug/L							U
Ethylbenzene	ND	0.20	ug/L							U
m,p-Xylene	ND	0.40	ug/L							U
o-Xylene	ND	0.20	ug/L							U
Surrogate: 1,2-Dichloroethane-d4	5.15		ug/L	5.00		103	80-129			
Surrogate: Toluene-d8	4.87		ug/L	5.00		97.3	80-120			
Surrogate: 4-Bromofluorobenzene	4.72		ug/L	5.00		94.4	80-120			
Surrogate: 1,2-Dichlorobenzene-d4	5.14		ug/L	5.00		103	80-120			
LCS (BJF0536-BS1)										
					Prepared: 23-Jun-2021		Analyzed: 23-Jun-2021 11:38			
Gasoline Range Organics (Tol-Nap)	1080	100	ug/L	1000		108	72-128			
Surrogate: Toluene-d8	5.11		ug/L	5.00		102	80-120			
Surrogate: 4-Bromofluorobenzene	5.06		ug/L	5.00		101	80-120			
LCS (BJF0536-BS2)										
					Prepared: 23-Jun-2021		Analyzed: 23-Jun-2021 11:59			
Benzene	10.3	0.20	ug/L	10.0		103	80-120			
Toluene	10.3	0.20	ug/L	10.0		103	80-120			
Ethylbenzene	10.3	0.20	ug/L	10.0		103	80-120			
m,p-Xylene	21.4	0.40	ug/L	20.0		107	80-121			
o-Xylene	10.8	0.20	ug/L	10.0		108	80-121			
Surrogate: 1,2-Dichloroethane-d4	4.80		ug/L	5.00		96.0	80-129			
Surrogate: Toluene-d8	5.10		ug/L	5.00		102	80-120			
Surrogate: 4-Bromofluorobenzene	5.02		ug/L	5.00		100	80-120			
Surrogate: 1,2-Dichlorobenzene-d4	5.09		ug/L	5.00		102	80-120			
LCS Dup (BJF0536-BSD1)										
					Prepared: 23-Jun-2021		Analyzed: 23-Jun-2021 12:19			
Gasoline Range Organics (Tol-Nap)	963	100	ug/L	1000		96.3	72-128	11.60	30	
Surrogate: Toluene-d8	4.97		ug/L	5.00		99.4	80-120			



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Reported:
10-Jul-2021 12:52

Volatile Organic Compounds - Quality Control

Batch BJF0536 - EPA 5030C (Purge and Trap)

Instrument: NT2 Analyst: PKC

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BJF0536-BSD1)					Prepared: 23-Jun-2021 Analyzed: 23-Jun-2021 12:19					
Surrogate: 4-Bromofluorobenzene	5.12		ug/L	5.00		102	80-120			
LCS Dup (BJF0536-BSD2)					Prepared: 23-Jun-2021 Analyzed: 23-Jun-2021 12:40					
Benzene	9.91	0.20	ug/L	10.0		99.1	80-120	3.87	30	
Toluene	9.64	0.20	ug/L	10.0		96.4	80-120	6.13	30	
Ethylbenzene	9.75	0.20	ug/L	10.0		97.5	80-120	5.81	30	
m,p-Xylene	20.6	0.40	ug/L	20.0		103	80-121	3.69	30	
o-Xylene	10.3	0.20	ug/L	10.0		103	80-121	5.03	30	
Surrogate: 1,2-Dichloroethane-d4	4.85		ug/L	5.00		97.0	80-129			
Surrogate: Toluene-d8	5.12		ug/L	5.00		102	80-120			
Surrogate: 4-Bromofluorobenzene	5.07		ug/L	5.00		101	80-120			
Surrogate: 1,2-Dichlorobenzene-d4	5.05		ug/L	5.00		101	80-120			



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Reported:
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Semivolatile Organic Compounds - SIM - Quality Control

Batch BJF0669 - EPA 3510C SepF

Instrument: NT11 Analyst: VTS

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJF0669-BLK1)										
					Prepared: 29-Jun-2021 Analyzed: 09-Jul-2021 11:44					
Naphthalene	ND	0.010	ug/L							U
2-Methylnaphthalene	ND	0.010	ug/L							U
1-Methylnaphthalene	ND	0.010	ug/L							U
Acenaphthylene	ND	0.010	ug/L							U
Acenaphthene	ND	0.010	ug/L							U
Dibenzofuran	ND	0.010	ug/L							U
Fluorene	ND	0.010	ug/L							U
Phenanthrene	ND	0.010	ug/L							U
Anthracene	ND	0.010	ug/L							U
Fluoranthene	ND	0.010	ug/L							U
Pyrene	ND	0.010	ug/L							U
Benzo(a)anthracene	ND	0.010	ug/L							U
Chrysene	ND	0.010	ug/L							U
Benzo(b)fluoranthene	ND	0.010	ug/L							U
Benzo(k)fluoranthene	ND	0.010	ug/L							U
Benzo(a)pyrene	ND	0.010	ug/L							U
Indeno(1,2,3-cd)pyrene	ND	0.010	ug/L							U
Dibenzo(a,h)anthracene	ND	0.010	ug/L							U
Benzo(g,h,i)perylene	ND	0.010	ug/L							U
Surrogate: 2-Methylnaphthalene-d10	0.181		ug/L	0.300		60.4	42-120			
Surrogate: Dibenzo[a,h]anthracene-d14	0.242		ug/L	0.300		80.6	29-120			
Surrogate: Fluoranthene-d10	0.233		ug/L	0.300		77.6	57-120			
LCS (BJF0669-BS1)										
					Prepared: 29-Jun-2021 Analyzed: 09-Jul-2021 12:14					
Naphthalene	0.228	0.010	ug/L	0.300		75.9	37-120			
2-Methylnaphthalene	0.223	0.010	ug/L	0.300		74.3	37-120			
1-Methylnaphthalene	0.226	0.010	ug/L	0.300		75.4	29-120			
2-Chloronaphthalene	0.213	0.010	ug/L	0.300		71.0	30-160			
Biphenyl	0.215	0.010	ug/L	0.300		71.7	30-160			
2,6-Dimethylnaphthalene	0.211	0.010	ug/L	0.300		70.3	30-160			
Acenaphthylene	0.221	0.010	ug/L	0.300		73.5	41-120			
Acenaphthene	0.224	0.010	ug/L	0.300		74.6	41-120			
Dibenzofuran	0.225	0.010	ug/L	0.300		74.9	38-120			
2,3,5-Trimethylnaphthalene	0.225	0.010	ug/L	0.300		75.0	30-160			
Fluorene	0.234	0.010	ug/L	0.300		77.9	43-120			



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Reported:
10-Jul-2021 12:52

Semivolatile Organic Compounds - SIM - Quality Control

Batch BJF0669 - EPA 3510C SepF

Instrument: NT11 Analyst: VTS

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BJF0669-BS1)										
					Prepared: 29-Jun-2021	Analyzed: 09-Jul-2021 12:14				
Dibenzothiophene	0.238	0.010	ug/L	0.300		79.3	30-160			
Phenanthrene	0.241	0.010	ug/L	0.300		80.4	41-120			
Anthracene	0.235	0.010	ug/L	0.300		78.3	40-120			
Carbazole	0.247	0.010	ug/L	0.300		82.5	30-160			
Fluoranthene	0.253	0.010	ug/L	0.300		84.2	45-120			
Pyrene	0.248	0.010	ug/L	0.300		82.7	41-120			
1-Methylphenanthrene	0.245	0.010	ug/L	0.300		81.7	30-160			
Benzo(a)anthracene	0.262	0.010	ug/L	0.300		87.4	42-120			
Chrysene	0.251	0.010	ug/L	0.300		83.7	44-120			
Benzo(b)fluoranthene	0.259	0.010	ug/L	0.300		86.3	44-120			
Benzo(k)fluoranthene	0.282	0.010	ug/L	0.300		94.1	50-120			
Benzo(j)fluoranthene	0.247	0.010	ug/L	0.300		82.3	39-160			
Benzo(e)pyrene	0.264	0.010	ug/L	0.300		88.0	30-160			
Benzo(a)pyrene	0.256	0.010	ug/L	0.300		85.4	35-120			
Indeno(1,2,3-cd)pyrene	0.273	0.010	ug/L	0.300		91.0	37-120			
Dibenzo(a,h)anthracene	0.275	0.010	ug/L	0.300		91.7	34-120			
Benzo(g,h,i)perylene	0.329	0.010	ug/L	0.300		110	38-120			Q
Benzo(b)thiophene	0.228	0.010	ug/L	0.300		75.9	30-160			
Surrogate: 2-Methylnaphthalene-d10	0.247		ug/L	0.300		82.4	42-120			
Surrogate: Dibenzo[a,h]anthracene-d14	0.297		ug/L	0.300		98.9	29-120			
Surrogate: Fluoranthene-d10	0.283		ug/L	0.300		94.4	57-120			

LCS Dup (BJF0669-BSD1)										
					Prepared: 29-Jun-2021	Analyzed: 09-Jul-2021 12:44				
Naphthalene	0.246	0.010	ug/L	0.300		82.1	37-120	7.85	30	
2-Methylnaphthalene	0.244	0.010	ug/L	0.300		81.4	37-120	9.12	30	
1-Methylnaphthalene	0.245	0.010	ug/L	0.300		81.8	29-120	8.10	30	
2-Chloronaphthalene	0.239	0.010	ug/L	0.300		79.7	30-160	11.60	30	
Biphenyl	0.240	0.010	ug/L	0.300		80.1	30-160	11.10	30	
2,6-Dimethylnaphthalene	0.240	0.010	ug/L	0.300		79.9	30-160	12.80	30	
Acenaphthylene	0.242	0.010	ug/L	0.300		80.5	41-120	9.08	30	
Acenaphthene	0.245	0.010	ug/L	0.300		81.7	41-120	9.05	30	
Dibenzofuran	0.250	0.010	ug/L	0.300		83.2	38-120	10.50	30	
2,3,5-Trimethylnaphthalene	0.255	0.010	ug/L	0.300		84.9	30-160	12.40	30	
Fluorene	0.261	0.010	ug/L	0.300		86.9	43-120	11.00	30	
Dibenzothiophene	0.261	0.010	ug/L	0.300		87.0	30-160	9.32	30	



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Project: Laurel Station
Project Number: Laurel Station
Project Manager: Karen Mixon

Reported:
10-Jul-2021 12:52

Semivolatile Organic Compounds - SIM - Quality Control

Batch BJF0669 - EPA 3510C SepF

Instrument: NT11 Analyst: VTS

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BJF0669-BSD1)				Prepared: 29-Jun-2021 Analyzed: 09-Jul-2021 12:44						
Phenanthrene	0.264	0.010	ug/L	0.300		88.0	41-120	9.10	30	
Anthracene	0.262	0.010	ug/L	0.300		87.2	40-120	10.80	30	
Carbazole	0.277	0.010	ug/L	0.300		92.3	30-160	11.30	30	
Fluoranthene	0.280	0.010	ug/L	0.300		93.5	45-120	10.40	30	
Pyrene	0.278	0.010	ug/L	0.300		92.6	41-120	11.20	30	
1-Methylphenanthrene	0.271	0.010	ug/L	0.300		90.3	30-160	10.10	30	
Benzo(a)anthracene	0.290	0.010	ug/L	0.300		96.5	42-120	9.93	30	
Chrysene	0.277	0.010	ug/L	0.300		92.2	44-120	9.61	30	
Benzo(b)fluoranthene	0.289	0.010	ug/L	0.300		96.2	44-120	10.90	30	
Benzo(k)fluoranthene	0.314	0.010	ug/L	0.300		105	50-120	10.50	30	
Benzo(j)fluoranthene	0.275	0.010	ug/L	0.300		91.7	39-160	10.80	30	
Benzo(e)pyrene	0.289	0.010	ug/L	0.300		96.2	30-160	8.91	30	
Benzo(a)pyrene	0.287	0.010	ug/L	0.300		95.6	35-120	11.30	30	
Indeno(1,2,3-cd)pyrene	0.317	0.010	ug/L	0.300		106	37-120	14.90	30	
Dibenzo(a,h)anthracene	0.319	0.010	ug/L	0.300		106	34-120	14.70	30	
Benzo(g,h,i)perylene	0.369	0.010	ug/L	0.300		123	38-120	11.60	30	*, Q
Benzo(b)thiophene	0.247	0.010	ug/L	0.300		82.2	30-160	7.92	30	
Surrogate: 2-Methylnaphthalene-d10	0.242		ug/L	0.300		80.8	42-120			
Surrogate: Dibenzo[a,h]anthracene-d14	0.320		ug/L	0.300		107	29-120			
Surrogate: Fluoranthene-d10	0.284		ug/L	0.300		94.8	57-120			



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Petroleum Hydrocarbons - Quality Control

Batch BJF0664 - EPA 3510C SepF

Instrument: FID4 Analyst: CTO

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJF0664-BLK1)		Prepared: 24-Jun-2021 Analyzed: 28-Jun-2021 15:35								
Diesel Range Organics (C12-C24)	ND	0.100	mg/L							U
Motor Oil Range Organics (C24-C38)	ND	0.200	mg/L							U
Surrogate: <i>o</i> -Terphenyl	0.182		mg/L	0.225		80.7	50-150			
LCS (BJF0664-BS1)		Prepared: 24-Jun-2021 Analyzed: 28-Jun-2021 15:59								
Diesel Range Organics (C12-C24)	2.08	0.100	mg/L	3.00		69.5	56-120			
Surrogate: <i>o</i> -Terphenyl	0.185		mg/L	0.225		82.2	50-150			
LCS Dup (BJF0664-BSD1)		Prepared: 24-Jun-2021 Analyzed: 28-Jun-2021 16:23								
Diesel Range Organics (C12-C24)	2.37	0.100	mg/L	3.00		79.0	56-120	12.80	30	
Surrogate: <i>o</i> -Terphenyl	0.197		mg/L	0.225		87.6	50-150			



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Certified Analyses included in this Report

Analyte	Certifications
EPA 8260D in Water	
Chloromethane	DoD-ELAP,ADEC,NELAP
Chloromethane	DoD-ELAP,ADEC,NELAP,WADOE
Vinyl Chloride	DoD-ELAP,ADEC,NELAP,WADOE
Vinyl Chloride	DoD-ELAP,ADEC,NELAP
Bromomethane	DoD-ELAP,ADEC,NELAP
Bromomethane	DoD-ELAP,ADEC,NELAP,WADOE
Chloroethane	DoD-ELAP,ADEC,NELAP
Chloroethane	DoD-ELAP,ADEC,NELAP,WADOE
Trichlorofluoromethane	DoD-ELAP,ADEC,NELAP
Trichlorofluoromethane	DoD-ELAP,ADEC,NELAP,WADOE
Acrolein	DoD-ELAP,NELAP
Acrolein	DoD-ELAP,NELAP,WADOE
1,1,2-Trichloro-1,2,2-Trifluoroethane	DoD-ELAP,ADEC,NELAP
1,1,2-Trichloro-1,2,2-Trifluoroethane	DoD-ELAP,ADEC,NELAP,WADOE
Acetone	DoD-ELAP,ADEC,NELAP,WADOE
Acetone	DoD-ELAP,ADEC,NELAP
1,1-Dichloroethene	DoD-ELAP,ADEC,NELAP,WADOE
1,1-Dichloroethene	DoD-ELAP,ADEC,NELAP
Iodomethane	DoD-ELAP,NELAP,WADOE
Iodomethane	DoD-ELAP,NELAP
Methylene Chloride	DoD-ELAP,ADEC,NELAP,WADOE
Methylene Chloride	DoD-ELAP,ADEC,NELAP
Acrylonitrile	DoD-ELAP,NELAP,WADOE
Acrylonitrile	DoD-ELAP,NELAP
Carbon Disulfide	DoD-ELAP,NELAP,WADOE
Carbon Disulfide	DoD-ELAP,NELAP
trans-1,2-Dichloroethene	DoD-ELAP,ADEC,NELAP
trans-1,2-Dichloroethene	DoD-ELAP,ADEC,NELAP,WADOE
Vinyl Acetate	DoD-ELAP,NELAP,WADOE
Vinyl Acetate	DoD-ELAP,NELAP
1,1-Dichloroethane	DoD-ELAP,ADEC,NELAP,WADOE
1,1-Dichloroethane	DoD-ELAP,ADEC,NELAP
2-Butanone	DoD-ELAP,NELAP
2-Butanone	DoD-ELAP,NELAP,WADOE
2,2-Dichloropropane	DoD-ELAP,ADEC,NELAP



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2,2-Dichloropropane	DoD-ELAP,ADEC,NELAP,WADOE
cis-1,2-Dichloroethene	DoD-ELAP,ADEC,NELAP,WADOE
cis-1,2-Dichloroethene	DoD-ELAP,ADEC,NELAP
Chloroform	DoD-ELAP,ADEC,NELAP,WADOE
Chloroform	DoD-ELAP,ADEC,NELAP
Bromochloromethane	DoD-ELAP,ADEC,NELAP,WADOE
Bromochloromethane	DoD-ELAP,ADEC,NELAP
1,1,1-Trichloroethane	DoD-ELAP,ADEC,NELAP,WADOE
1,1,1-Trichloroethane	DoD-ELAP,ADEC,NELAP
1,1-Dichloropropene	DoD-ELAP,ADEC,NELAP
1,1-Dichloropropene	DoD-ELAP,ADEC,NELAP,WADOE
Carbon tetrachloride	DoD-ELAP,ADEC,NELAP
Carbon tetrachloride	DoD-ELAP,ADEC,NELAP,WADOE
1,2-Dichloroethane	DoD-ELAP,ADEC,NELAP,WADOE
1,2-Dichloroethane	DoD-ELAP,ADEC,NELAP
Benzene	DoD-ELAP,ADEC,NELAP,WADOE
Benzene	DoD-ELAP,ADEC,NELAP
Trichloroethene	DoD-ELAP,ADEC,NELAP,WADOE
Trichloroethene	DoD-ELAP,ADEC,NELAP
1,2-Dichloropropane	DoD-ELAP,ADEC,NELAP,WADOE
1,2-Dichloropropane	DoD-ELAP,ADEC,NELAP
Bromodichloromethane	DoD-ELAP,ADEC,NELAP
Bromodichloromethane	DoD-ELAP,ADEC,NELAP,WADOE
Dibromomethane	DoD-ELAP,ADEC,NELAP,WADOE
Dibromomethane	DoD-ELAP,ADEC,NELAP
2-Chloroethyl vinyl ether	DoD-ELAP,ADEC,NELAP,WADOE
2-Chloroethyl vinyl ether	DoD-ELAP,ADEC,NELAP
4-Methyl-2-Pentanone	DoD-ELAP,NELAP,WADOE
4-Methyl-2-Pentanone	DoD-ELAP,NELAP
cis-1,3-Dichloropropene	DoD-ELAP,ADEC,NELAP
cis-1,3-Dichloropropene	DoD-ELAP,ADEC,NELAP,WADOE
Toluene	DoD-ELAP,ADEC,NELAP
Toluene	DoD-ELAP,ADEC,NELAP,WADOE
trans-1,3-Dichloropropene	DoD-ELAP,ADEC,NELAP
trans-1,3-Dichloropropene	DoD-ELAP,ADEC,NELAP,WADOE
2-Hexanone	DoD-ELAP,NELAP
2-Hexanone	DoD-ELAP,NELAP,WADOE
1,1,2-Trichloroethane	DoD-ELAP,ADEC,NELAP,WADOE
1,1,2-Trichloroethane	DoD-ELAP,ADEC,NELAP



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1,3-Dichloropropane	DoD-ELAP,ADEC,NELAP,WADOE
1,3-Dichloropropane	DoD-ELAP,ADEC,NELAP
Tetrachloroethene	DoD-ELAP,ADEC,NELAP
Tetrachloroethene	DoD-ELAP,ADEC,NELAP,WADOE
Dibromochloromethane	DoD-ELAP,ADEC,NELAP,WADOE
Dibromochloromethane	DoD-ELAP,ADEC,NELAP
1,2-Dibromoethane	DoD-ELAP,NELAP
1,2-Dibromoethane	DoD-ELAP,NELAP,WADOE
Chlorobenzene	DoD-ELAP,ADEC,NELAP,WADOE
Chlorobenzene	DoD-ELAP,ADEC,NELAP
Ethylbenzene	DoD-ELAP,ADEC,NELAP
Ethylbenzene	DoD-ELAP,ADEC,NELAP,WADOE
1,1,1,2-Tetrachloroethane	DoD-ELAP,ADEC,NELAP,WADOE
1,1,1,2-Tetrachloroethane	DoD-ELAP,ADEC,NELAP
m,p-Xylene	DoD-ELAP,ADEC,NELAP,WADOE
m,p-Xylene	DoD-ELAP,ADEC,NELAP
o-Xylene	DoD-ELAP,ADEC,NELAP
o-Xylene	DoD-ELAP,ADEC,NELAP,WADOE
Styrene	DoD-ELAP,NELAP,WADOE
Styrene	DoD-ELAP,NELAP
Bromoform	DoD-ELAP,NELAP,WADOE
Bromoform	DoD-ELAP,NELAP
1,1,2,2-Tetrachloroethane	DoD-ELAP,ADEC,NELAP,WADOE
1,1,2,2-Tetrachloroethane	DoD-ELAP,ADEC,NELAP
1,2,3-Trichloropropane	DoD-ELAP,ADEC,NELAP,WADOE
1,2,3-Trichloropropane	DoD-ELAP,ADEC,NELAP
trans-1,4-Dichloro 2-Butene	DoD-ELAP,ADEC,NELAP,WADOE
trans-1,4-Dichloro 2-Butene	DoD-ELAP,ADEC,NELAP
n-Propylbenzene	DoD-ELAP,NELAP,WADOE
n-Propylbenzene	DoD-ELAP,NELAP
Bromobenzene	DoD-ELAP,NELAP
Bromobenzene	DoD-ELAP,NELAP,WADOE
Isopropyl Benzene	DoD-ELAP,NELAP,WADOE
Isopropyl Benzene	DoD-ELAP,NELAP
2-Chlorotoluene	DoD-ELAP,ADEC,NELAP
2-Chlorotoluene	DoD-ELAP,ADEC,NELAP,WADOE
4-Chlorotoluene	DoD-ELAP,ADEC,NELAP
4-Chlorotoluene	DoD-ELAP,ADEC,NELAP,WADOE
t-Butylbenzene	DoD-ELAP,NELAP,WADOE



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t-Butylbenzene	DoD-ELAP,NELAP
1,3,5-Trimethylbenzene	DoD-ELAP,NELAP,WADOE
1,3,5-Trimethylbenzene	DoD-ELAP,NELAP
1,2,4-Trimethylbenzene	DoD-ELAP,NELAP,WADOE
1,2,4-Trimethylbenzene	DoD-ELAP,NELAP
s-Butylbenzene	DoD-ELAP,NELAP
s-Butylbenzene	DoD-ELAP,NELAP,WADOE
4-Isopropyl Toluene	DoD-ELAP,NELAP,WADOE
4-Isopropyl Toluene	DoD-ELAP,NELAP
1,3-Dichlorobenzene	DoD-ELAP,ADEC,NELAP
1,3-Dichlorobenzene	DoD-ELAP,ADEC,NELAP,WADOE
1,4-Dichlorobenzene	DoD-ELAP,ADEC,NELAP
1,4-Dichlorobenzene	DoD-ELAP,ADEC,NELAP,WADOE
n-Butylbenzene	DoD-ELAP,NELAP
n-Butylbenzene	DoD-ELAP,NELAP,WADOE
1,2-Dichlorobenzene	DoD-ELAP,ADEC,NELAP
1,2-Dichlorobenzene	DoD-ELAP,ADEC,NELAP,WADOE
1,2-Dibromo-3-chloropropane	DoD-ELAP,ADEC,NELAP
1,2-Dibromo-3-chloropropane	DoD-ELAP,ADEC,NELAP,WADOE
1,2,4-Trichlorobenzene	DoD-ELAP,ADEC,NELAP,WADOE
1,2,4-Trichlorobenzene	DoD-ELAP,ADEC,NELAP
Hexachloro-1,3-Butadiene	DoD-ELAP,ADEC,NELAP
Hexachloro-1,3-Butadiene	DoD-ELAP,ADEC,NELAP,WADOE
Naphthalene	DoD-ELAP,ADEC,NELAP,WADOE
Naphthalene	DoD-ELAP,ADEC,NELAP
1,2,3-Trichlorobenzene	DoD-ELAP,ADEC,NELAP
1,2,3-Trichlorobenzene	DoD-ELAP,ADEC,NELAP,WADOE
Dichlorodifluoromethane	DoD-ELAP,ADEC,NELAP,WADOE
Dichlorodifluoromethane	DoD-ELAP,ADEC,NELAP
Methyl tert-butyl Ether	DoD-ELAP,ADEC,NELAP,WADOE
Methyl tert-butyl Ether	DoD-ELAP,ADEC,NELAP
n-Hexane	
n-Hexane	WADOE
2-Pentanone	WADOE
2-Pentanone	

EPA 8270E-SIM in Water

Naphthalene	ADEC,DoD-ELAP,NELAP
Naphthalene	ADEC,DoD-ELAP,NELAP,WADOE
2-Methylnaphthalene	ADEC,DoD-ELAP,NELAP



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2-Methylnaphthalene	ADEC,DoD-ELAP,NELAP
1-Methylnaphthalene	ADEC,DoD-ELAP,NELAP
1-Methylnaphthalene	ADEC,DoD-ELAP,NELAP,WADOE
Biphenyl	NELAP
Biphenyl	NELAP
Acenaphthylene	ADEC,DoD-ELAP,NELAP
Acenaphthylene	ADEC,DoD-ELAP,NELAP,WADOE
Acenaphthene	ADEC,DoD-ELAP,NELAP
Acenaphthene	ADEC,DoD-ELAP,NELAP,WADOE
Dibenzofuran	ADEC,DoD-ELAP,NELAP
Dibenzofuran	ADEC,DoD-ELAP,NELAP
Fluorene	ADEC,DoD-ELAP,NELAP,WADOE
Fluorene	ADEC,DoD-ELAP,NELAP
Phenanthrene	ADEC,DoD-ELAP,NELAP
Phenanthrene	ADEC,DoD-ELAP,NELAP,WADOE
Anthracene	ADEC,DoD-ELAP,NELAP
Anthracene	ADEC,DoD-ELAP,NELAP,WADOE
Carbazole	NELAP
Carbazole	NELAP
Fluoranthene	ADEC,DoD-ELAP,NELAP
Fluoranthene	ADEC,DoD-ELAP,NELAP,WADOE
Pyrene	ADEC,DoD-ELAP,NELAP
Pyrene	ADEC,DoD-ELAP,NELAP,WADOE
Benzo(a)anthracene	ADEC,DoD-ELAP,NELAP
Benzo(a)anthracene	ADEC,DoD-ELAP,NELAP,WADOE
Chrysene	ADEC,DoD-ELAP,NELAP,WADOE
Chrysene	ADEC,DoD-ELAP,NELAP
Benzo(b)fluoranthene	ADEC,DoD-ELAP,NELAP,WADOE
Benzo(b)fluoranthene	ADEC,DoD-ELAP,NELAP
Benzo(k)fluoranthene	ADEC,DoD-ELAP,NELAP,WADOE
Benzo(k)fluoranthene	ADEC,DoD-ELAP,NELAP
Benzo(j)fluoranthene	ADEC,DoD-ELAP,NELAP
Benzo(j)fluoranthene	ADEC,DoD-ELAP,NELAP,WADOE
Benzo(e)pyrene	NELAP
Benzo(e)pyrene	NELAP
Benzo(a)pyrene	ADEC,DoD-ELAP,NELAP,WADOE
Benzo(a)pyrene	ADEC,DoD-ELAP,NELAP
Perylene	ADEC,NELAP
Perylene	ADEC,NELAP



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Indeno(1,2,3-cd)pyrene	ADEC,DoD-ELAP,NELAP,WADOE
Indeno(1,2,3-cd)pyrene	ADEC,DoD-ELAP,NELAP
Dibenzo(a,h)anthracene	ADEC,DoD-ELAP,NELAP,WADOE
Dibenzo(a,h)anthracene	ADEC,DoD-ELAP,NELAP
Benzo(g,h,i)perylene	ADEC,DoD-ELAP,NELAP
Benzo(g,h,i)perylene	ADEC,DoD-ELAP,NELAP,WADOE

NWTPH-Dx in Water

Diesel Range Organics (C12-C24)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (C12-C24)	DoD-ELAP,NELAP
Diesel Range Organics (C10-C25)	DoD-ELAP,NELAP
Diesel Range Organics (C10-C25)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (Tol-C18)	DoD-ELAP,NELAP
Diesel Range Organics (Tol-C18)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (C10-C24)	DoD-ELAP,NELAP
Diesel Range Organics (C10-C24)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (C10-C28)	DoD-ELAP,NELAP
Diesel Range Organics (C10-C28)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (C12-C22)	DoD-ELAP
Diesel Range Organics (C12-C22)	DoD-ELAP
Diesel Range Organics (C12-C25)	DoD-ELAP
Diesel Range Organics (C12-C25)	DoD-ELAP
Motor Oil Range Organics (C24-C38)	DoD-ELAP,NELAP
Motor Oil Range Organics (C24-C38)	DoD-ELAP,NELAP,WADOE
Motor Oil Range Organics (C25-C36)	DoD-ELAP,NELAP,WADOE
Motor Oil Range Organics (C25-C36)	DoD-ELAP,NELAP
Motor Oil Range Organics (C24-C40)	DoD-ELAP,NELAP,WADOE
Motor Oil Range Organics (C24-C40)	DoD-ELAP,NELAP
Residual Range Organics (C23-C32)	DoD-ELAP
Residual Range Organics (C23-C32)	DoD-ELAP
Mineral Spirits Range Organics (Tol-C12)	DoD-ELAP,NELAP
Mineral Spirits Range Organics (Tol-C12)	DoD-ELAP,NELAP,WADOE
Mineral Oil Range Organics (C16-C28)	DoD-ELAP,NELAP
Mineral Oil Range Organics (C16-C28)	DoD-ELAP,NELAP,WADOE
Kerosene Range Organics (Tol-C18)	DoD-ELAP,NELAP,WADOE
Kerosene Range Organics (Tol-C18)	DoD-ELAP,NELAP
JP8 Range Organics (C8-C18)	DoD-ELAP,NELAP,WADOE
JP8 Range Organics (C8-C18)	DoD-ELAP,NELAP
JP5 Range Organics (C10-C16)	DoD-ELAP,NELAP,WADOE
JP5 Range Organics (C10-C16)	DoD-ELAP,NELAP



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JP4 Range Organics (Tol-C14)	DoD-ELAP,NELAP,WADOE
JP4 Range Organics (Tol-C14)	DoD-ELAP,NELAP
Jet-A Range Organics (C10-C18)	DoD-ELAP,NELAP,WADOE
Jet-A Range Organics (C10-C18)	DoD-ELAP,NELAP
Creosote Range Organics (C12-C22)	DoD-ELAP,NELAP
Creosote Range Organics (C12-C22)	DoD-ELAP,NELAP,WADOE
Bunker C Range Organics (C10-C38)	DoD-ELAP,NELAP
Bunker C Range Organics (C10-C38)	DoD-ELAP,NELAP,WADOE
Stoddard Range Organics (C8-C12)	DoD-ELAP,NELAP
Stoddard Range Organics (C8-C12)	DoD-ELAP,NELAP,WADOE
Transformer Oil Range Organics (C12-C28)	DoD-ELAP,NELAP,WADOE
Transformer Oil Range Organics (C12-C28)	DoD-ELAP,NELAP

NWTPHg in Water

Gasoline Range Organics (Tol-Nap)	DoD-ELAP
Gasoline Range Organics (Tol-Nap)	WADOE,DoD-ELAP
Gasoline Range Organics (2MP-TMB)	DoD-ELAP
Gasoline Range Organics (2MP-TMB)	WADOE,DoD-ELAP
Gasoline Range Organics (Tol-C12)	WADOE,DoD-ELAP
Gasoline Range Organics (Tol-C12)	DoD-ELAP
Gasoline Range Organics (C6-C10)	WADOE,ADEC,DoD-ELAP
Gasoline Range Organics (C6-C10)	ADEC,DoD-ELAP
Gasoline Range Organics (C5-C12)	WADOE,DoD-ELAP
Gasoline Range Organics (C5-C12)	DoD-ELAP

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2023
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program	66169	02/28/2022
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2022



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Notes and Definitions

- * Flagged value is not within established control limits.
- D The reported value is from a dilution
- E The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL)
- H Hold time violation - Hold time was exceeded.
- Q Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20% RSD, <20% drift or minimum RRF)
- U This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- [2C] Indicates this result was quantified on the second column on a dual column analysis.