

2024 GROUNDWATER MONITORING REPORT

HF SINCLAIR PUGET SOUND REFINING LLC
SWMU 11 SITE
MAY 2025

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1. INTRODUCTION

This report summarizes groundwater monitoring and remedial activities completed during 2024 at the HF Sinclair Puget Sound Refining LLC SWMU 11 site. SWMU 11 is a surface impoundment (West Impounding Basin) located in the central portion of HF Sinclair Puget Sound Refinery near the southwest corner of the facility tank farm. The site location is shown in Figure A-1. All Figures are included in Appendix A, and all Tables are included in Appendix B.

The scope of the remedial action at the SWMU 11 site consists of the operation and maintenance of a fluid recovery system in one well and the semi-annual collection and analysis of groundwater samples from the monitoring well network. The current monitoring well network consists of 16 monitoring wells and one piezometer. Groundwater sampling has been conducted at 13 of the 16 wells, with approval from the Department of Ecology. Well depths range from 25 feet to 83 feet.

In May 2023, well MW-97 was observed to be broken just below the ground surface and confirmed to have an obstruction located at 26.46 ft below ground surface (bgs) in July 2023. The well could not be sampled in May or November 2024 due to the obstruction in the well. A letter requesting the removal of MW-97 from the monitoring well network was submitted to Ecology on November 10, 2023. Beginning in 2023 groundwater sampling is conducted at 12 wells and one piezometer.

A fluid recovery system is currently installed in well MW-59 and is used to remove light non-aqueous phase liquid (LNAPL) consisting of diesel range petroleum compounds from the SWMU 11 site. MW-64 also contained a fluid recovery system, but operations ceased in 2008 and the equipment was later removed due to the elimination of LNAPL from that area.

This report includes the results of groundwater monitoring conducted in 2024. This information is being submitted to keep Ecology informed of ongoing activities at the site.

2. SITE ACTIVITIES

Groundwater samples were collected at the SWMU 11 site in May and October 2024. The groundwater monitoring well network was sampled for EPA Skinner List volatiles and diesel range total petroleum hydrocarbons (TPH), as approved by Ecology in 2012.

Depths-to-water at the site were near or greater than 30 ft. bgs. This is near or greater than the maximum depth that a peristaltic pump is capable of pulling water, therefore groundwater samples were collected using disposable bailers. Prior to collecting each sample, 1 to 3 well volumes were purged from each well, depending on well recovery time and the initial volume of water in the well. Following well purging, samples were collected using the disposable bailer and transferred to sample containers provided by the analytical laboratory. The samples were stored in a cooler with ice and sent to Eurofins Environmental Testing Northwest (Eurofins) Laboratory in Tacoma, Washington for analysis following strict chain of custody protocols.

A duplicate sample and an equipment blank sample were collected during each sampling event in 2024. The duplicate samples were labeled SWMU 11-DUP-1 and ALL4-DUP-1. The field equipment blank samples were collected using distilled water and labeled SWMU 11-DUP-1 and ALL4-FEB-1.

Depth-to-water measurements were collected from all monitoring wells prior to sampling using a water level indicator. LNAPL thickness and depth-to-water measurements were collected from wells MW-63 and MW-64 and in piezometer P-21 using an oil/water interface meter due to historic LNAPL accumulations in these wells. Samples were not collected from wells with measurable LNAPL.

The fluid recovery system at well MW-59 removes LNAPL and contaminated groundwater from the SWMU 11 site. Measurements from the recovery pump flow meter are recorded during each sampling event. LNAPL thickness measurements, DTW measurements, and groundwater samples cannot be collected from MW-59 due to an extraction pump in the well.

3. GROUNDWATER MONITORING RESULTS

3.1 FIELD MEASUREMENTS

LNAPL was observed in piezometer P-21 during both sampling events in 2024; 1.89 feet of LNAPL was measured in May, and 1.95 feet was measured in October. No other wells contained measurable amounts of LNAPL during either sampling event. Historical LNAPL thickness measurements are provided in Table B-1.

Depth-to-water measurements and LNAPL thickness measurements collected in 2024 are presented in Tables B-2 and B-3. Groundwater elevation contour maps with well locations are included as Figures A-2 and A-3 (May and October 2024, respectively).

Flow meter readings indicate the fluid recovery system removed approximately 20,078 gallons from MW-59 during 2024. Approximately 844,323 gallons have been extracted from the site since installation of the fluid recovery system in 1992 (including from former recovery well MW-64). A total of 69,680 gallons of fluids were extracted from MW-64 during the lifespan of the system. A graph of the cumulative quantity of liquids pumped from the site is included as Figure A-4.

3.2 ANALYTICAL RESULTS

During the May 2024 sampling event, volatile organic constituents were detected in six of the 12 wells sampled (MW-60, MW-63, MW-64, MW-65, MW-92, and MW-93). Diesel range TPH were detected in ten of the wells (MW-60, MW-61, MW-63, MW-64, MW-91, MW-92, MW-93, MW-94, MW-95, and MW-98). May 2024 groundwater analytical data are summarized in Table B-4. Original laboratory reports and chain of custody forms are included in Appendix C.

During the October 2024 sampling event, volatile organic constituents were detected in six of the 12 wells sampled (MW-63, MW-64, MW-65, MW-92, MW-93, and MW-95). Diesel range TPH were detected in 11 of the wells (MW-60, MW-61, MW-63, MW-64, MW-65, MW-91, MW-92, MW-93, MW-94, MW-95, and



MW-98). October 2024 groundwater analytical data are summarized in Table B-5. Original laboratory reports and chain of custody forms are included in Appendix D.

MW-97 was not sampled in 2024 due to well damage which prevented the purging of the well. HFSPSR has formally requested the elimination of the well from the monitoring network in a letter to Ecology.

4. CONCLUSIONS

LNAPL continues to be observed floating on groundwater in piezometer P-21. The fluid recovery system at well MW-59 appears to have created a capture zone with drawdown that encompasses well P-21 based on historic potentiometric surface data. Approximately 844,323 gallons of fluid have been removed from the site since the installation of the fluid recovery system occurred in 1992. LNAPL and contaminated groundwater extraction at the site will continue.

MW-97 was discovered to have been damaged at some point between November 2022 and May 2023. HFSPSR has requested that Ecology approve the elimination of the well from the monitoring well system thereby reducing the well network to 12 wells and one piezometer.

The groundwater monitoring well network will continue to be sampled on a semi-annual schedule.

APPENDIX A - FIGURES



Prepared for:



Prepared by:

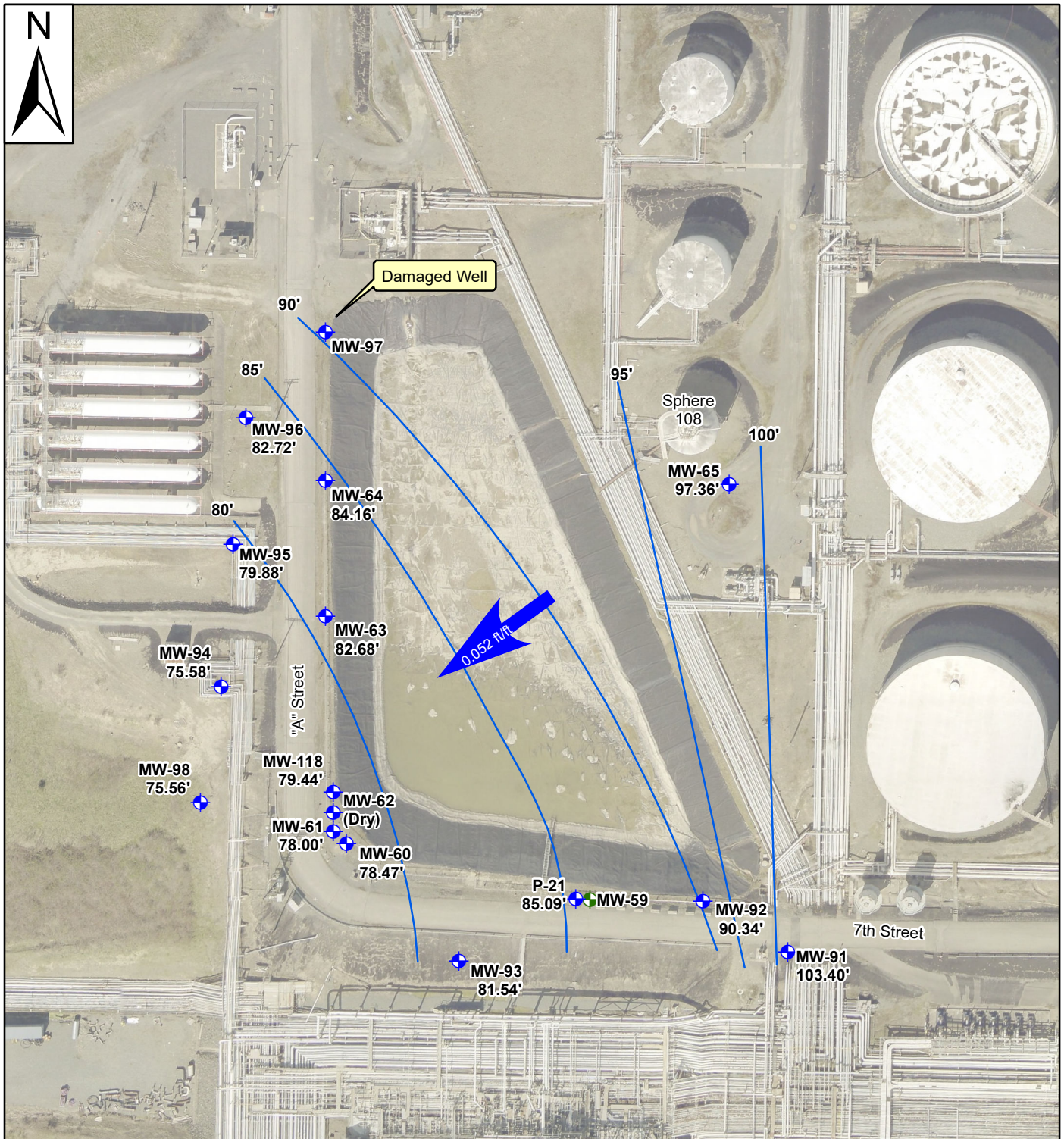


Site Location Map

SWMU 11

5/30/2024

Figure A-1



- Groundwater Flow Direction
- 100.0'** Groundwater Elevation (ft.)
- 100' Groundwater Contour (ft.)
- Monitoring Well
- Recovery Well

All data are approximate and should be used for relative location reference only.

Groundwater Elevation Contours (5/7/2024)

8505 S. Texas Road
Anacortes, WA 98221

SWMU 11

5/30/2024

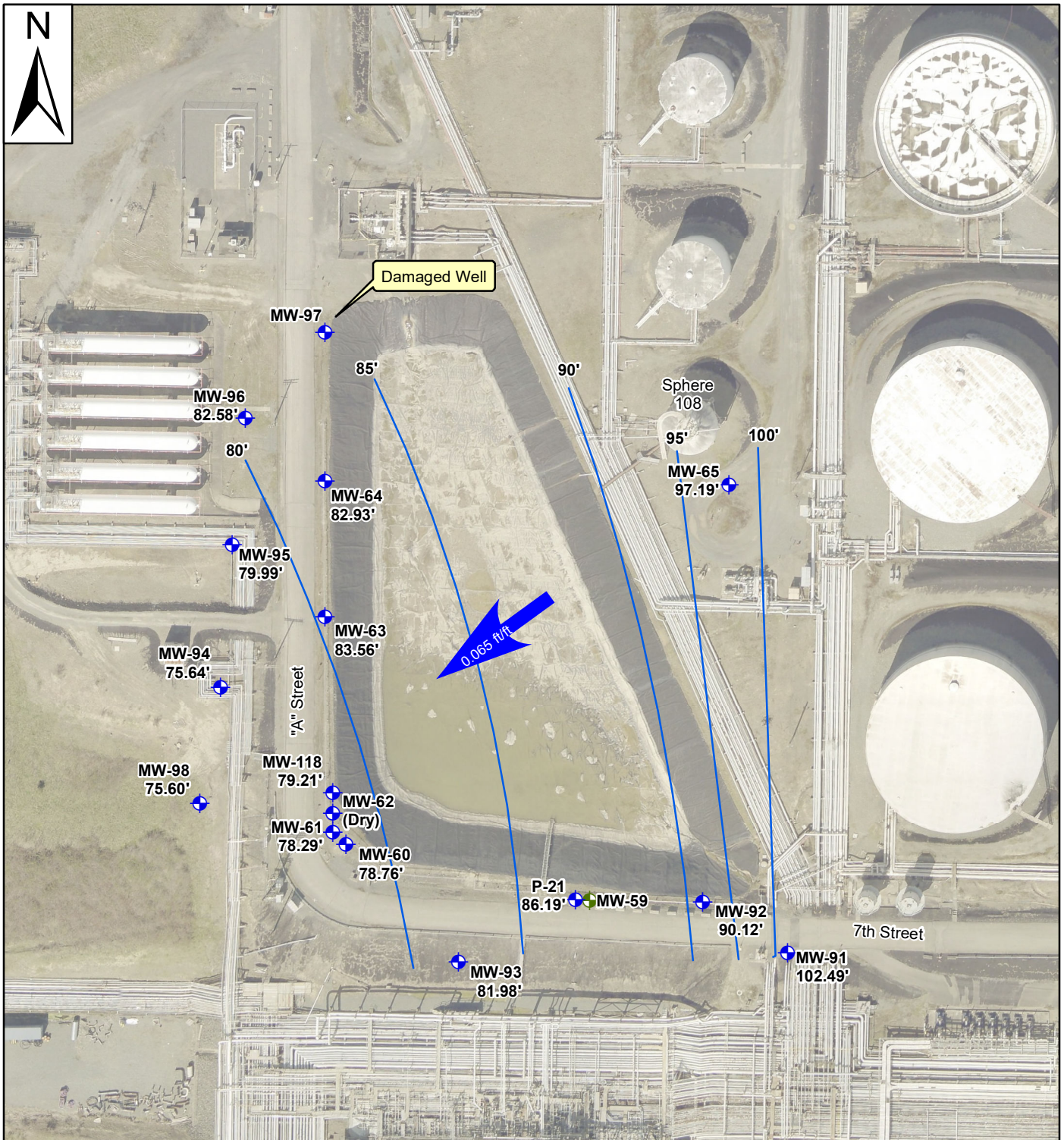
Figure A-2

Prepared for:



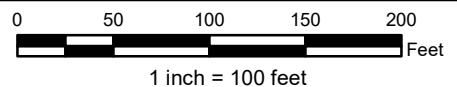
Prepared by:





- Groundwater Flow Direction
- 100.0'** Groundwater Elevation (ft.)
- 100'** Groundwater Contour (ft.)
- Monitoring Well
- Recovery Well

All data are approximate and should be used for relative location reference only.



Groundwater Elevation Contours (10/15/2024)

Prepared for:



Prepared by:



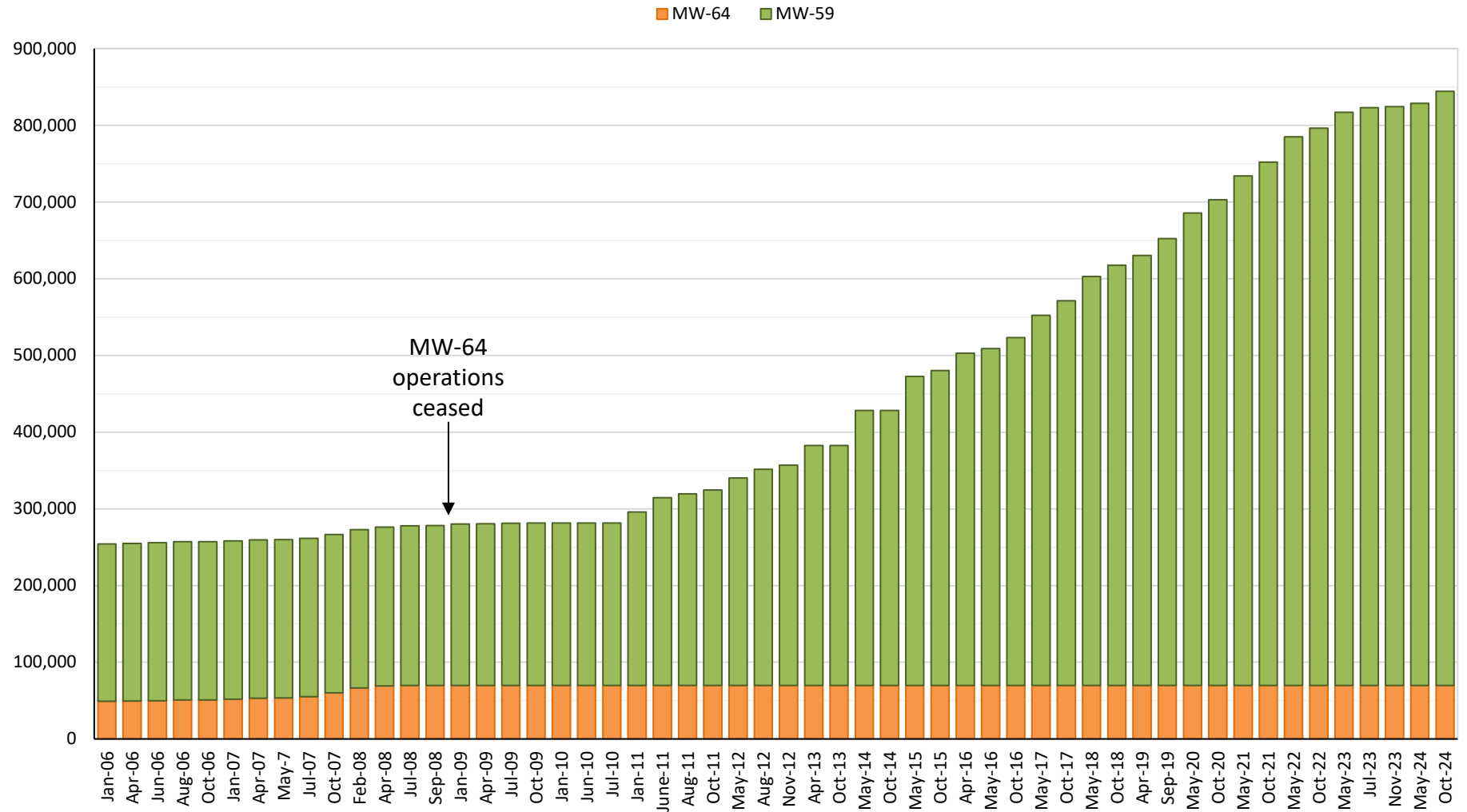
8505 S. Texas Road
Anacortes, WA 98221

SWMU 11

10/30/2024

Figure A-3

Total Fluids Recovered: 1992-2024 (Cumulative Gallons)



Note: This stacked column chart shows the cumulative quantity of fluids recovered from both wells since the fluid recovery system began operating in 1992.

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Prepared by:



SWMU 11 Fluids Recovery

SWMU 11

11/19/24

Figure A-4

**APPENDIX B -
TABLES**

Table B-1
SWMU 11 LNAPL Thickness Measurements
HF Sinclair Puget Sound Refining LLC - Anacortes, WA

Well Number	Date Measured	Depth to Product (ft.)	Depth to Water (ft.)	Apparent Product Thickness (ft.)
MW-59 (fluid extraction well)	05/22/91	30.34	39.27	8.93
	12/11/91	28.53	39.27	10.74
	05/14/92	28.56	40.12	11.56
	10/01/92	31.09	37.81	6.72
	10/20/92	31.77	33.28	1.51*
	07/19/93	32.33**	32.33**	Trace**
	05/16/94	35.56	35.57	0.01**
	07/22/98	30.30	33.91	3.61**
	07/30/01	34.65	35.30	0.65**
	03/01/06	32.26	35.91	3.65**
March 2006: measurements suspended - new QED fluid recovery pump installed in MW-59				
MW-63	05/27/15	33.61	34.42	0.81**
	05/22/91	29.77	29.87	0.10
	12/11/91	26.37	26.38	0.01
	12/03/92	31.18	31.24	0.06***
	05/06/93	30.44	30.44	Trace
	05/16/94	31.83	32.60	0.77
	05/03/95	--	32.02	--
	11/18/96	32.25	32.38	0.13
	05/22/97	29.41	29.56	0.15
	05/15/98	--	29.43	--
	05/08/00	--	29.55	--
	10/22/02	--	31.10	--
	04/08/04	--	31.60	--
	04/10/06	--	30.58	--
	04/03/08	--	35.00	--
	01/28/10	--	30.00	--
	04/23/10	--	29.80	--
	10/22/10	NS	NS	NS
	02/10/11	--	29.17	--
	05/19/11	28.85	28.86	0.01
	10/13/11	--	29.35	--
	05/10/12	--	29.08	--
	11/06/12	--	29.55	--
	04/30/13	28.73	28.73	Trace
	10/07/13	--	28.73	--
	05/27/14	27.99	27.99	Trace
	10/28/14	28.88	28.89	0.01
	05/11/15	--	28.82	--
	10/15/15	--	29.24	--
	05/17/16	--	25.25	--
	10/03/16	--	28.02	--
	05/02/17	--	23.88	--
	10/10/17	--	25.14	--
	05/07/18	--	24.85	--

Well Number	Date Measured	Depth to Product (ft.)	Depth to Water (ft.)	Apparent Product Thickness (ft.)
MW-63 (cont.)	10/09/18	--	29.27	--
	04/08/19	--	27.67	--
	09/23/19	--	24.30	--
	05/05/20	--	24.23	--
	10/13/20	--	25.92	--
	05/18/21	23.32	23.33	0.01
	10/11/21	25.76	25.79	0.03
	05/16/22	25.65	26.65	Trace
	10/25/22	--	28.66	--
	05/23/23	--	26.61	--
	11/06/23	--	22.28	--
	05/06/24	--	27.10	Trace
	10/15/24	--	26.22	--
MW-64 (former fluid extraction well)	05/22/91	30.34	31.07	0.73
	12/11/91	29.14	29.63	0.49
	10/01/92	31.62	32.24	0.62
	07/19/93	--	32.83	Trace**
	05/16/94	--	34.61	--**
	07/22/98	33.96	34.03	Trace**
	07/30/01	--	32.22	--**
	03/01/06	31.33	31.35	Trace**
March 2006: measurements suspended - new QED fluid recovery pump installed in MW-64				
November 2012: QED fluid recovery pump removed from MW-64				
	11/06/12	29.94	29.94	Trace
	04/30/13	27.88	27.88	Trace
	10/07/13	29.25	29.25	Trace
	05/27/14	--	27.41	--
	10/28/14	--	29.1	--
	05/11/15	--	27.78	--
	10/15/15	--	29.72	--
	05/17/16	--	26.95	--
	10/03/16	--	30.03	--
	05/02/17	--	25.95	--
	10/10/17	--	28.15	--
	05/07/18	--	26.05	--
	10/09/18	--	29.82	--
	04/08/19	--	28.05	--
	09/23/19	--	27.41	--
	05/05/20	--	26.43	--
	10/13/20	--	28.09	--
	05/18/21	--	26.01	--
	10/11/21	--	28.86	--
	05/16/22	--	26.58	--
	10/25/22	--	28.77	--
	05/23/23	--	27.28	--
	11/06/23	--	26.29	--
	05/06/24	--	27.32	--
	10/15/24	--	28.55	--

Well Number	Date Measured	Depth to Product (ft.)	Depth to Water (ft.)	Apparent Product Thickness (ft.)
P-21	05/16/94	33.83	34.12	0.29
	05/03/95	34.20	34.40	0.20
	11/18/96	33.20	36.00	2.80
	05/22/97	30.25	36.00	5.75
	05/15/98	29.98	33.48	3.50
	05/05/99	29.66	32.37	2.71
	05/08/00	29.92	34.36	4.44
	07/06/01	31.74	33.84	2.10
	10/22/02	32.50	34.76	2.26
	05/12/03	31.31	32.78	1.47
	04/08/04	31.20	34.24	3.04
	04/07/05	30.50	32.84	2.34
	04/10/06	30.34	31.30	0.96
	10/02/06	33.18	35.04	1.86
	04/25/07	30.16	31.16	1.00
	04/03/08	30.60	31.30	0.70
	09/29/08	32.00	33.50	1.50
	04/14/09	30.02	30.82	0.80
	07/16/09	30.66	31.78	1.12
	10/20/09	32.32	34.20	1.88
	01/28/10	30.42	31.43	1.01
	04/23/10	30.20	31.23	1.03
	10/22/10	31.45	31.91	0.46
	02/10/11	30.25	31.27	1.02
	05/19/11	29.58	31.30	1.72
	08/15/11	30.25	31.71	1.46
	10/13/11	31.53	35.50	3.97
	05/10/12	29.79	31.71	1.92
	11/06/12	31.17	34.02	2.85
	04/30/13	29.33	30.35	1.02
	10/07/13	30.43	32.48	2.05
	05/27/14	28.47	29.56	1.09
	10/28/14	28.00	29.65	1.65
	05/11/15	29.93	30.68	0.75
	10/15/15	31.36	34.03	2.67
	05/17/16	28.44	30.40	1.96
	05/17/16	28.44	30.41	1.97
	10/03/16	32.70	33.44	0.74
	05/02/17	27.05	28.69	1.64
	10/10/17	29.64	32.20	2.56
	05/07/18	27.29	30.37	3.08
	10/09/18	30.77	34.86	4.09
	04/08/19	29.56	30.60	1.04
	09/23/19	28.51	29.39	0.88
	05/05/20	27.79	29.86	2.07
	10/13/20	29.19	31.20	2.01

Well Number	Date Measured	Depth to Product (ft.)	Depth to Water (ft.)	Apparent Product Thickness (ft.)
P-21 (cont.)	05/18/21	29.50	29.55	0.05
	10/11/21	29.10	30.67	1.57
	05/16/22	27.73	30.13	2.40
	10/25/22	30.35	34.41	4.06
	05/23/23	28.51	30.34	1.83
	11/06/23	28.19	29.38	1.19
	05/06/24	28.32	30.21	1.89
	10/15/24	28.21	30.16	1.95

NS indicates well was Not Sampled

-- indicates the absence of free product

* Measured following free product (LNAPL) bailing event on 6-19-92

** Measured when pumps were temporarily removed from wells

*** Measured just prior to installation of passive LNAPL recovery system

Table B-2
SWMU 11 Groundwater Elevation Data
Monday, May 6, 2024
HF Sinclair Puget Sound Refining LLC - Anacortes, WA

Well No.	Depth to Water	Depth to Product	PVC Mark Elevation	Water Surface Elevation	Apparent Product Thickness	Total Well Depth	Well Diameter	Water Vol. in Well	Purge Volume
units:	(ft.)	(ft.)	(ft.)	(ft.)	(ft.)	(ft.)	(ft.)	(gal.)	(gal.)
MW-59*	NS	NS	113.74	NA	NA	39.90	0.33	NA	NA
MW-60	29.50	--	107.97	78.47	--	54.40	0.33	16.251	48.75
MW-61	31.00	--	109.00	78.00	--	39.42	0.33	5.387	16.16
MW-62	25.84	--	Dry	NA	--	25.64	0.33	Dry	Dry
MW-63	27.10	--	109.78	82.68	--	40.67	0.33	8.682	26.05
MW-64	27.32	--	111.48	84.16	--	43.66	0.33	10.454	31.36
MW-65	23.05	--	120.41	97.36	--	41.37	0.33	11.721	35.16
MW-91	18.13	--	121.53	103.40	--	40.77	0.17	3.844	11.53
MW-92	28.06	--	118.40	90.34	--	36.77	0.17	1.479	4.44
MW-93	28.99	--	110.53	81.54	--	41.27	0.17	2.085	6.25
MW-94	33.08	--	108.66	75.58	--	39.60	0.17	1.107	3.32
MW-95	29.86	--	109.74	79.88	--	40.92	0.17	1.878	5.63
MW-96	28.80	--	111.52	82.72	--	40.41	0.17	1.971	5.91
MW-97**	NS	NS	114.84	NA	NA	40.71	0.17	NA	NA
MW-98	28.54	--	104.10	75.56	--	35.54	0.17	1.189	3.57
P-21	30.21	28.32	114.79	86.09	1.89	36.00	0.17	0.983	2.95
MW-118	28.58	NS	108.02	79.44	--	83.00	0.17	9.240	27.72

NS indicates well was Not Sampled

NA indicates Not Applicable

-- indicates the absence of free product

* Well access is obstructed by product recovery pump in well

** Well access is obstructed by obstruction in well at ~26.5 ft bgs

Table B-3
SWMU 11 Groundwater Elevation Data
Tuesday, October 15, 2024
HF Sinclair Puget Sound Refining LLC - Anacortes, WA

Well No.	Depth to Water	Depth to Product	PVC Mark Elevation	Water Surface Elevation	Apparent Product Thickness	Total Well Depth	Well Diameter	Water Vol. in Well	Purge Volume
units:	(ft.)	(ft.)	(ft.)	(ft.)	(ft.)	(ft.)	(ft.)	(gal.)	(gal.)
MW-59*	NS	NS	113.74	NA	NA	39.90	0.33	NA	NA
MW-60	29.21	--	107.97	78.76	--	54.40	0.33	16.440	49.32
MW-61	30.71	--	109.00	78.29	--	39.42	0.33	5.573	16.72
MW-62	25.86	--	Dry	NA	--	25.64	0.33	Dry	Dry
MW-63	26.22	--	109.78	83.56	--	40.67	0.33	9.245	27.73
MW-64	28.55	--	111.48	82.93	--	43.66	0.33	9.667	29.00
MW-65	23.22	--	120.41	97.19	--	41.37	0.33	11.612	34.84
MW-91	19.04	--	121.53	102.49	--	40.77	0.17	3.689	11.07
MW-92	28.28	--	118.40	90.12	--	36.77	0.17	1.441	4.32
MW-93	28.55	--	110.53	81.98	--	41.27	0.17	2.160	6.48
MW-94	33.02	--	108.66	75.64	--	39.60	0.17	1.117	3.35
MW-95	29.75	--	109.74	79.99	--	40.92	0.17	1.897	5.69
MW-96	28.94	--	111.52	82.58	--	40.41	0.17	1.947	5.84
MW-97**	NS	--	114.84	NA	--	40.71	0.17	NA	NA
MW-98	28.50	--	104.10	75.60	--	35.54	0.17	1.195	3.59
P-21	30.16	28.21	114.79	86.19	1.95	36.00	0.17	0.992	2.97
MW-118	28.81	--	108.02	79.21	--	83.00	0.17	9.201	27.60

NS indicates well was Not Sampled

NA indicates Not Applicable

-- indicates the absence of free product

* Well access is obstructed by product recovery pump in well

** Well access is obstructed by obstruction in well at ~26.5 ft bgs

Table B-4
SWMU 11 Groundwater Analytical Data Summary
May 6-8, 2024
HF Sinclair Puget Sound Refining LLC - Anacortes, WA

Well Numbers	MW-60	MW-61	MW-63	MW-64	MW-65	MW-91	MW-92	MW-93	MW-94	MW-95	MW-96	MW-98	Duplicate (SWMU 11- DUP-1)*	SB (SWMU 11- FEB-1)	Trip Blank
Method 8260D - Skinner Volatiles (ug/L) - Selected Analytes															
1,1,1-Trichloroethane	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
1,2,4-Trimethylbenzene	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)
1,2-Dibromoethane	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
1,2 Dichloroethane	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	13	ND(<1.0)	1.7	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
1,3,5-Trimethylbenzene	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
2-Butanone (MEK)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)
Acetone	16	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	26	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)
Benzene	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
Carbon Disulfide	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
Chlorobenzene	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
Chloroform	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
Ethylbenzene	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
n-Butylbenzene	ND(<1.0)	ND(<1.0)	22	2.9	ND(<1.0)	ND(<1.0)	ND(<1.0)	1.2	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	3.3	ND(<1.0)	ND(<1.0)
n-Propylbenzene	ND(<1.0)	ND(<1.0)	18	2.2	ND(<1.0)	ND(<1.0)	ND(<1.0)	6.1	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	2.8	ND(<1.0)	ND(<1.0)
p-Isopropyltoluene	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
Styrene	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
Toluene	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
Trichloroethene	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
Xylenes (total)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)
Washington Total Petroleum Hydrocarbons as Diesel (mg/L)															
NWTPH-Dx - #2 Diesel (C10-C24)	2.7	0.85	22	15	ND(<0.20)	0.2	0.45	1.20	0.22	0.59	ND(<0.19)	0.25	14	ND(<0.20)	NA
NWTPH-Dx - Motor Oil (>C24-C36)	1.5	0.68	1.70	2.1	ND(<0.35)	ND(<0.35)	ND(<0.34)	0.62	ND(<0.36)	ND(<0.34)	ND(<0.34)	ND(<0.37)	1.7	ND(<0.35)	NA

SB indicates Sample Blank

ND indicates analyte was Not Detected at level above reporting limit shown in parentheses

NA indicates that the sample was Not Analyzed for the specified analyte

* SWMU 11-DUP-1 is a duplicate of MW-64

Table B-5
SWMU 11 Groundwater Analytical Data Summary
October 15-17, 2024
HF Sinclair Puget Sound Refining LLC - Anacortes, WA

Well Numbers	MW-60	MW-61	MW-63	MW-64	MW-65	MW-91	MW-92	MW-93	MW-94	MW-95	MW-96	MW-98	Duplicate (ALL4-DUP-1)*	SB (ALL4-FEB-1)	Trip Blank
Method 8260D - Skinner Volatiles (ug/L) - Selected Analytes															
1,1,1-Trichloroethane	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.1)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
1,2,4-Trimethylbenzene	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)
1,2-Dibromoethane	ND(<1.0)	ND(<1.0) ^a	ND(<1.0)	ND(<1.0)	ND(<1.0) ^a	ND(<1.0) ^a	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
1,2 Dichloroethane	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	13	ND(<1.0)	1.9	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	13	ND(<1.0)	ND(<1.0)
1,3,5-Trimethylbenzene	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
2-Butanone (MEK)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)
Acetone	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	19	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)	ND(<15.0)
Benzene	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
Carbon Disulfide	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
Chlorobenzene	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
Chloroform	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
Ethylbenzene	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
n-Butylbenzene	ND(<1.0)	ND(<1.0)	22	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	3.7	ND(<1.0)	2.8	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
n-Propylbenzene	ND(<1.0)	ND(<1.0)	17	3.8	ND(<1.0)	ND(<1.0)	ND(<1.0)	11	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
p-Isopropyltoluene	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
Styrene	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
Toluene	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
Trichloroethene	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)
Xylenes (total)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<2.0)
Washington Total Petroleum Hydrocarbons as Diesel (mg/L)															
NWTPH-Dx - Diesel Range Organics (DRO) (C10-C24)	0.24	0.62	21	13	0.24	3.4	0.55	1.2	0.27	0.48	ND(<0.19)	0.34	0.21	ND(<0.19)	NA
NWTPH-Dx - Residual Range Organics (RRO) (C24-C36)	ND(<0.33)	0.53	1.6	2.2	ND(<0.36)	1.9	ND(<0.34)	0.64	ND(<0.36)	ND(<0.37)	ND(<0.34)	0.37	ND(<0.35)	ND(<0.34)	NA

SB indicates Sample Blank

ND indicates analyte was Not Detected at level above reporting limit shown in parentheses

NA indicates that the sample was Not Analyzed for the specified analyte

* WES-DUP-1 is a duplicate of MW-65

^a - LCS/LCSD RPD exceeds control limits

**APPENDIX C -
MAY 2024 LABORATORY DATA REPORT**

ANALYTICAL REPORT

PREPARED FOR

Attn: Eric Libolt
ALL 4, LLC
228 East Champion Street #101
Bellingham, Washington 98225

Generated 5/16/2024 4:48:26 PM

JOB DESCRIPTION

HFS GW Monitoring - C
Washington

JOB NUMBER

580-139881-1

Eurofins Seattle

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



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Authorized for release by
Laura Schick, Project Manager
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Case Narrative

Client: ALL 4, LLC
Project: HFS GW Monitoring - C

Job ID: 580-139881-1

Job ID: 580-139881-1

Eurofins Seattle

Job Narrative 580-139881-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 5/9/2024 8:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.0°C and 1.5°C.

Receipt Exceptions

The COC checked off the analysis for NWTPH-Dx on the Trip Blank however only VOA vials were received which are not compatible with the Dx method. Therefore Dx was not logged in for the trip blank. Trip Blanks (580-139881-15)

GC/MS VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Hydrocarbons

Method NWTPH_Dx: Surrogate recovery for the following sample was outside control limits: MW-60 (580-139881-1). Evidence of matrix interference due to high target analytes is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Seattle

Definitions/Glossary

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Client Sample ID: MW-60

Lab Sample ID: 580-139881-1

Date Collected: 05/07/24 14:30

Matrix: Water

Date Received: 05/09/24 08:45

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			05/13/24 20:04	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			05/13/24 20:04	1
1,2-Dibromoethane	ND		1.0		ug/L			05/13/24 20:04	1
1,2-Dichloroethane	ND		1.0		ug/L			05/13/24 20:04	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/13/24 20:04	1
2-Butanone	ND		15		ug/L			05/13/24 20:04	1
Acetone	16		15		ug/L			05/13/24 20:04	1
Benzene	ND		1.0		ug/L			05/13/24 20:04	1
Carbon disulfide	ND		1.0		ug/L			05/13/24 20:04	1
Chlorobenzene	ND		1.0		ug/L			05/13/24 20:04	1
Chloroform	ND		1.0		ug/L			05/13/24 20:04	1
Ethylbenzene	ND		1.0		ug/L			05/13/24 20:04	1
n-Butylbenzene	ND		1.0		ug/L			05/13/24 20:04	1
N-Propylbenzene	ND		1.0		ug/L			05/13/24 20:04	1
p-Isopropyltoluene	ND		1.0		ug/L			05/13/24 20:04	1
Styrene	ND		1.0		ug/L			05/13/24 20:04	1
Toluene	ND		1.0		ug/L			05/13/24 20:04	1
Trichloroethene	ND		1.0		ug/L			05/13/24 20:04	1
Xylenes, Total	ND		2.0		ug/L			05/13/24 20:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 120		05/13/24 20:04	1
4-Bromofluorobenzene (Surr)	101		80 - 120		05/13/24 20:04	1
Dibromofluoromethane (Surr)	103		80 - 120		05/13/24 20:04	1
Toluene-d8 (Surr)	101		80 - 120		05/13/24 20:04	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	2.7		0.20		mg/L		05/13/24 08:44	05/14/24 12:11	1
Motor Oil (>C24-C36)	1.5		0.35		mg/L		05/13/24 08:44	05/14/24 12:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	44	S1-	50 - 150	05/13/24 08:44	05/14/24 12:11	1

Client Sample Results

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Client Sample ID: MW-61

Lab Sample ID: 580-139881-2

Date Collected: 05/07/24 14:40

Matrix: Water

Date Received: 05/09/24 08:45

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			05/13/24 20:27	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			05/13/24 20:27	1
1,2-Dibromoethane	ND		1.0		ug/L			05/13/24 20:27	1
1,2-Dichloroethane	ND		1.0		ug/L			05/13/24 20:27	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/13/24 20:27	1
2-Butanone	ND		15		ug/L			05/13/24 20:27	1
Acetone	ND		15		ug/L			05/13/24 20:27	1
Benzene	ND		1.0		ug/L			05/13/24 20:27	1
Carbon disulfide	ND		1.0		ug/L			05/13/24 20:27	1
Chlorobenzene	ND		1.0		ug/L			05/13/24 20:27	1
Chloroform	ND		1.0		ug/L			05/13/24 20:27	1
Ethylbenzene	ND		1.0		ug/L			05/13/24 20:27	1
n-Butylbenzene	ND		1.0		ug/L			05/13/24 20:27	1
N-Propylbenzene	ND		1.0		ug/L			05/13/24 20:27	1
p-Isopropyltoluene	ND		1.0		ug/L			05/13/24 20:27	1
Styrene	ND		1.0		ug/L			05/13/24 20:27	1
Toluene	ND		1.0		ug/L			05/13/24 20:27	1
Trichloroethene	ND		1.0		ug/L			05/13/24 20:27	1
Xylenes, Total	ND		2.0		ug/L			05/13/24 20:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 120		05/13/24 20:27	1
4-Bromofluorobenzene (Surr)	101		80 - 120		05/13/24 20:27	1
Dibromofluoromethane (Surr)	101		80 - 120		05/13/24 20:27	1
Toluene-d8 (Surr)	102		80 - 120		05/13/24 20:27	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.85		0.19		mg/L		05/13/24 08:44	05/13/24 21:06	1
Motor Oil (>C24-C36)	0.68		0.33		mg/L		05/13/24 08:44	05/13/24 21:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	59		50 - 150	05/13/24 08:44	05/13/24 21:06	1

Client Sample Results

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Client Sample ID: MW-63

Lab Sample ID: 580-139881-3

Date Collected: 05/08/24 11:00

Matrix: Water

Date Received: 05/09/24 08:45

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			05/14/24 01:51	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			05/14/24 01:51	1
1,2-Dibromoethane	ND		1.0		ug/L			05/14/24 01:51	1
1,2-Dichloroethane	ND		1.0		ug/L			05/14/24 01:51	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/14/24 01:51	1
2-Butanone	ND		15		ug/L			05/14/24 01:51	1
Acetone	ND		15		ug/L			05/14/24 01:51	1
Benzene	ND		1.0		ug/L			05/14/24 01:51	1
Carbon disulfide	ND		1.0		ug/L			05/14/24 01:51	1
Chlorobenzene	ND		1.0		ug/L			05/14/24 01:51	1
Chloroform	ND		1.0		ug/L			05/14/24 01:51	1
Ethylbenzene	ND		1.0		ug/L			05/14/24 01:51	1
n-Butylbenzene	22		1.0		ug/L			05/14/24 01:51	1
N-Propylbenzene	18		1.0		ug/L			05/14/24 01:51	1
p-Isopropyltoluene	ND		1.0		ug/L			05/14/24 01:51	1
Styrene	ND		1.0		ug/L			05/14/24 01:51	1
Toluene	ND		1.0		ug/L			05/14/24 01:51	1
Trichloroethene	ND		1.0		ug/L			05/14/24 01:51	1
Xylenes, Total	ND		2.0		ug/L			05/14/24 01:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 120		05/14/24 01:51	1
4-Bromofluorobenzene (Surr)	99		80 - 120		05/14/24 01:51	1
Dibromofluoromethane (Surr)	102		80 - 120		05/14/24 01:51	1
Toluene-d8 (Surr)	102		80 - 120		05/14/24 01:51	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	22		0.19		mg/L		05/13/24 08:44	05/13/24 21:27	1
Motor Oil (>C24-C36)	1.7		0.34		mg/L		05/13/24 08:44	05/13/24 21:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	136		50 - 150	05/13/24 08:44	05/13/24 21:27	1

Client Sample Results

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Client Sample ID: MW-64

Lab Sample ID: 580-139881-4

Date Collected: 05/08/24 11:55

Matrix: Water

Date Received: 05/09/24 08:45

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			05/14/24 00:41	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			05/14/24 00:41	1
1,2-Dibromoethane	ND		1.0		ug/L			05/14/24 00:41	1
1,2-Dichloroethane	ND		1.0		ug/L			05/14/24 00:41	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/14/24 00:41	1
2-Butanone	ND		15		ug/L			05/14/24 00:41	1
Acetone	ND		15		ug/L			05/14/24 00:41	1
Benzene	ND		1.0		ug/L			05/14/24 00:41	1
Carbon disulfide	ND		1.0		ug/L			05/14/24 00:41	1
Chlorobenzene	ND		1.0		ug/L			05/14/24 00:41	1
Chloroform	ND		1.0		ug/L			05/14/24 00:41	1
Ethylbenzene	ND		1.0		ug/L			05/14/24 00:41	1
n-Butylbenzene	2.9		1.0		ug/L			05/14/24 00:41	1
N-Propylbenzene	2.2		1.0		ug/L			05/14/24 00:41	1
p-Isopropyltoluene	ND		1.0		ug/L			05/14/24 00:41	1
Styrene	ND		1.0		ug/L			05/14/24 00:41	1
Toluene	ND		1.0		ug/L			05/14/24 00:41	1
Trichloroethene	ND		1.0		ug/L			05/14/24 00:41	1
Xylenes, Total	ND		2.0		ug/L			05/14/24 00:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		05/14/24 00:41	1
4-Bromofluorobenzene (Surr)	101		80 - 120		05/14/24 00:41	1
Dibromofluoromethane (Surr)	107		80 - 120		05/14/24 00:41	1
Toluene-d8 (Surr)	102		80 - 120		05/14/24 00:41	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	15		0.20		mg/L		05/13/24 08:44	05/13/24 21:47	1
Motor Oil (>C24-C36)	2.1		0.34		mg/L		05/13/24 08:44	05/13/24 21:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	109		50 - 150	05/13/24 08:44	05/13/24 21:47	1

Client Sample Results

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Client Sample ID: MW-65

Lab Sample ID: 580-139881-5

Date Collected: 05/08/24 10:55

Matrix: Water

Date Received: 05/09/24 08:45

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			05/14/24 01:04	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			05/14/24 01:04	1
1,2-Dibromoethane	ND		1.0		ug/L			05/14/24 01:04	1
1,2-Dichloroethane	13		1.0		ug/L			05/14/24 01:04	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/14/24 01:04	1
2-Butanone	ND		15		ug/L			05/14/24 01:04	1
Acetone	ND		15		ug/L			05/14/24 01:04	1
Benzene	ND		1.0		ug/L			05/14/24 01:04	1
Carbon disulfide	ND		1.0		ug/L			05/14/24 01:04	1
Chlorobenzene	ND		1.0		ug/L			05/14/24 01:04	1
Chloroform	ND		1.0		ug/L			05/14/24 01:04	1
Ethylbenzene	ND		1.0		ug/L			05/14/24 01:04	1
n-Butylbenzene	ND		1.0		ug/L			05/14/24 01:04	1
N-Propylbenzene	ND		1.0		ug/L			05/14/24 01:04	1
p-Isopropyltoluene	ND		1.0		ug/L			05/14/24 01:04	1
Styrene	ND		1.0		ug/L			05/14/24 01:04	1
Toluene	ND		1.0		ug/L			05/14/24 01:04	1
Trichloroethene	ND		1.0		ug/L			05/14/24 01:04	1
Xylenes, Total	ND		2.0		ug/L			05/14/24 01:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		05/14/24 01:04	1
4-Bromofluorobenzene (Surr)	102		80 - 120		05/14/24 01:04	1
Dibromofluoromethane (Surr)	105		80 - 120		05/14/24 01:04	1
Toluene-d8 (Surr)	102		80 - 120		05/14/24 01:04	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.20		mg/L		05/13/24 08:44	05/13/24 22:07	1
Motor Oil (>C24-C36)	ND		0.35		mg/L		05/13/24 08:44	05/13/24 22:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	69		50 - 150	05/13/24 08:44	05/13/24 22:07	1

Client Sample Results

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Client Sample ID: MW-91

Lab Sample ID: 580-139881-6

Date Collected: 05/07/24 12:10

Matrix: Water

Date Received: 05/09/24 08:45

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			05/13/24 20:50	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			05/13/24 20:50	1
1,2-Dibromoethane	ND		1.0		ug/L			05/13/24 20:50	1
1,2-Dichloroethane	ND		1.0		ug/L			05/13/24 20:50	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/13/24 20:50	1
2-Butanone	ND		15		ug/L			05/13/24 20:50	1
Acetone	ND		15		ug/L			05/13/24 20:50	1
Benzene	ND		1.0		ug/L			05/13/24 20:50	1
Carbon disulfide	ND		1.0		ug/L			05/13/24 20:50	1
Chlorobenzene	ND		1.0		ug/L			05/13/24 20:50	1
Chloroform	ND		1.0		ug/L			05/13/24 20:50	1
Ethylbenzene	ND		1.0		ug/L			05/13/24 20:50	1
n-Butylbenzene	ND		1.0		ug/L			05/13/24 20:50	1
N-Propylbenzene	ND		1.0		ug/L			05/13/24 20:50	1
p-Isopropyltoluene	ND		1.0		ug/L			05/13/24 20:50	1
Styrene	ND		1.0		ug/L			05/13/24 20:50	1
Toluene	ND		1.0		ug/L			05/13/24 20:50	1
Trichloroethene	ND		1.0		ug/L			05/13/24 20:50	1
Xylenes, Total	ND		2.0		ug/L			05/13/24 20:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		05/13/24 20:50	1
4-Bromofluorobenzene (Surr)	100		80 - 120		05/13/24 20:50	1
Dibromofluoromethane (Surr)	103		80 - 120		05/13/24 20:50	1
Toluene-d8 (Surr)	100		80 - 120		05/13/24 20:50	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.20		0.20		mg/L		05/13/24 08:44	05/13/24 22:27	1
Motor Oil (>C24-C36)	ND		0.35		mg/L		05/13/24 08:44	05/13/24 22:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	67		50 - 150	05/13/24 08:44	05/13/24 22:27	1

Client Sample Results

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Client Sample ID: MW-92

Lab Sample ID: 580-139881-7

Date Collected: 05/07/24 12:10

Matrix: Water

Date Received: 05/09/24 08:45

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			05/13/24 21:13	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			05/13/24 21:13	1
1,2-Dibromoethane	ND		1.0		ug/L			05/13/24 21:13	1
1,2-Dichloroethane	1.7		1.0		ug/L			05/13/24 21:13	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/13/24 21:13	1
2-Butanone	ND		15		ug/L			05/13/24 21:13	1
Acetone	26		15		ug/L			05/13/24 21:13	1
Benzene	ND		1.0		ug/L			05/13/24 21:13	1
Carbon disulfide	ND		1.0		ug/L			05/13/24 21:13	1
Chlorobenzene	ND		1.0		ug/L			05/13/24 21:13	1
Chloroform	ND		1.0		ug/L			05/13/24 21:13	1
Ethylbenzene	ND		1.0		ug/L			05/13/24 21:13	1
n-Butylbenzene	ND		1.0		ug/L			05/13/24 21:13	1
N-Propylbenzene	ND		1.0		ug/L			05/13/24 21:13	1
p-Isopropyltoluene	ND		1.0		ug/L			05/13/24 21:13	1
Styrene	ND		1.0		ug/L			05/13/24 21:13	1
Toluene	ND		1.0		ug/L			05/13/24 21:13	1
Trichloroethene	ND		1.0		ug/L			05/13/24 21:13	1
Xylenes, Total	ND		2.0		ug/L			05/13/24 21:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		05/13/24 21:13	1
4-Bromofluorobenzene (Surr)	100		80 - 120		05/13/24 21:13	1
Dibromofluoromethane (Surr)	102		80 - 120		05/13/24 21:13	1
Toluene-d8 (Surr)	102		80 - 120		05/13/24 21:13	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.45		0.19		mg/L		05/13/24 08:44	05/13/24 22:47	1
Motor Oil (>C24-C36)	ND		0.34		mg/L		05/13/24 08:44	05/13/24 22:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	63		50 - 150	05/13/24 08:44	05/13/24 22:47	1

Client Sample Results

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Client Sample ID: MW-93

Lab Sample ID: 580-139881-8

Date Collected: 05/07/24 12:25

Matrix: Water

Date Received: 05/09/24 08:45

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			05/13/24 21:36	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			05/13/24 21:36	1
1,2-Dibromoethane	ND		1.0		ug/L			05/13/24 21:36	1
1,2-Dichloroethane	ND		1.0		ug/L			05/13/24 21:36	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/13/24 21:36	1
2-Butanone	ND		15		ug/L			05/13/24 21:36	1
Acetone	ND		15		ug/L			05/13/24 21:36	1
Benzene	ND		1.0		ug/L			05/13/24 21:36	1
Carbon disulfide	ND		1.0		ug/L			05/13/24 21:36	1
Chlorobenzene	ND		1.0		ug/L			05/13/24 21:36	1
Chloroform	ND		1.0		ug/L			05/13/24 21:36	1
Ethylbenzene	ND		1.0		ug/L			05/13/24 21:36	1
n-Butylbenzene	1.2		1.0		ug/L			05/13/24 21:36	1
N-Propylbenzene	6.1		1.0		ug/L			05/13/24 21:36	1
p-Isopropyltoluene	ND		1.0		ug/L			05/13/24 21:36	1
Styrene	ND		1.0		ug/L			05/13/24 21:36	1
Toluene	ND		1.0		ug/L			05/13/24 21:36	1
Trichloroethene	ND		1.0		ug/L			05/13/24 21:36	1
Xylenes, Total	ND		2.0		ug/L			05/13/24 21:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		80 - 120		05/13/24 21:36	1
4-Bromofluorobenzene (Surr)	98		80 - 120		05/13/24 21:36	1
Dibromofluoromethane (Surr)	99		80 - 120		05/13/24 21:36	1
Toluene-d8 (Surr)	104		80 - 120		05/13/24 21:36	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	1.2		0.20		mg/L		05/13/24 08:44	05/13/24 23:07	1
Motor Oil (>C24-C36)	0.62		0.35		mg/L		05/13/24 08:44	05/13/24 23:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	62		50 - 150	05/13/24 08:44	05/13/24 23:07	1

Client Sample Results

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Client Sample ID: MW-94

Lab Sample ID: 580-139881-9

Date Collected: 05/07/24 15:00

Matrix: Water

Date Received: 05/09/24 08:45

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			05/13/24 22:00	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			05/13/24 22:00	1
1,2-Dibromoethane	ND		1.0		ug/L			05/13/24 22:00	1
1,2-Dichloroethane	ND		1.0		ug/L			05/13/24 22:00	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/13/24 22:00	1
2-Butanone	ND		15		ug/L			05/13/24 22:00	1
Acetone	ND		15		ug/L			05/13/24 22:00	1
Benzene	ND		1.0		ug/L			05/13/24 22:00	1
Carbon disulfide	ND		1.0		ug/L			05/13/24 22:00	1
Chlorobenzene	ND		1.0		ug/L			05/13/24 22:00	1
Chloroform	ND		1.0		ug/L			05/13/24 22:00	1
Ethylbenzene	ND		1.0		ug/L			05/13/24 22:00	1
n-Butylbenzene	ND		1.0		ug/L			05/13/24 22:00	1
N-Propylbenzene	ND		1.0		ug/L			05/13/24 22:00	1
p-Isopropyltoluene	ND		1.0		ug/L			05/13/24 22:00	1
Styrene	ND		1.0		ug/L			05/13/24 22:00	1
Toluene	ND		1.0		ug/L			05/13/24 22:00	1
Trichloroethene	ND		1.0		ug/L			05/13/24 22:00	1
Xylenes, Total	ND		2.0		ug/L			05/13/24 22:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		05/13/24 22:00	1
4-Bromofluorobenzene (Surr)	102		80 - 120		05/13/24 22:00	1
Dibromofluoromethane (Surr)	102		80 - 120		05/13/24 22:00	1
Toluene-d8 (Surr)	101		80 - 120		05/13/24 22:00	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.22		0.21		mg/L		05/13/24 08:44	05/13/24 23:27	1
Motor Oil (>C24-C36)	ND		0.36		mg/L		05/13/24 08:44	05/13/24 23:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	66		50 - 150	05/13/24 08:44	05/13/24 23:27	1

Client Sample Results

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Client Sample ID: MW-95

Lab Sample ID: 580-139881-10

Date Collected: 05/08/24 11:50

Matrix: Water

Date Received: 05/09/24 08:45

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			05/14/24 01:27	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			05/14/24 01:27	1
1,2-Dibromoethane	ND		1.0		ug/L			05/14/24 01:27	1
1,2-Dichloroethane	ND		1.0		ug/L			05/14/24 01:27	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/14/24 01:27	1
2-Butanone	ND		15		ug/L			05/14/24 01:27	1
Acetone	ND		15		ug/L			05/14/24 01:27	1
Benzene	ND		1.0		ug/L			05/14/24 01:27	1
Carbon disulfide	ND		1.0		ug/L			05/14/24 01:27	1
Chlorobenzene	ND		1.0		ug/L			05/14/24 01:27	1
Chloroform	ND		1.0		ug/L			05/14/24 01:27	1
Ethylbenzene	ND		1.0		ug/L			05/14/24 01:27	1
n-Butylbenzene	ND		1.0		ug/L			05/14/24 01:27	1
N-Propylbenzene	ND		1.0		ug/L			05/14/24 01:27	1
p-Isopropyltoluene	ND		1.0		ug/L			05/14/24 01:27	1
Styrene	ND		1.0		ug/L			05/14/24 01:27	1
Toluene	ND		1.0		ug/L			05/14/24 01:27	1
Trichloroethene	ND		1.0		ug/L			05/14/24 01:27	1
Xylenes, Total	ND		2.0		ug/L			05/14/24 01:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		05/14/24 01:27	1
4-Bromofluorobenzene (Surr)	99		80 - 120		05/14/24 01:27	1
Dibromofluoromethane (Surr)	103		80 - 120		05/14/24 01:27	1
Toluene-d8 (Surr)	101		80 - 120		05/14/24 01:27	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.59		0.19		mg/L		05/13/24 08:44	05/13/24 23:47	1
Motor Oil (>C24-C36)	ND		0.34		mg/L		05/13/24 08:44	05/13/24 23:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	68		50 - 150	05/13/24 08:44	05/13/24 23:47	1

Client Sample Results

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Client Sample ID: MW-96

Lab Sample ID: 580-139881-11

Date Collected: 05/07/24 15:30

Matrix: Water

Date Received: 05/09/24 08:45

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			05/13/24 22:23	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			05/13/24 22:23	1
1,2-Dibromoethane	ND		1.0		ug/L			05/13/24 22:23	1
1,2-Dichloroethane	ND		1.0		ug/L			05/13/24 22:23	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/13/24 22:23	1
2-Butanone	ND		15		ug/L			05/13/24 22:23	1
Acetone	ND		15		ug/L			05/13/24 22:23	1
Benzene	ND		1.0		ug/L			05/13/24 22:23	1
Carbon disulfide	ND		1.0		ug/L			05/13/24 22:23	1
Chlorobenzene	ND		1.0		ug/L			05/13/24 22:23	1
Chloroform	ND		1.0		ug/L			05/13/24 22:23	1
Ethylbenzene	ND		1.0		ug/L			05/13/24 22:23	1
n-Butylbenzene	ND		1.0		ug/L			05/13/24 22:23	1
N-Propylbenzene	ND		1.0		ug/L			05/13/24 22:23	1
p-Isopropyltoluene	ND		1.0		ug/L			05/13/24 22:23	1
Styrene	ND		1.0		ug/L			05/13/24 22:23	1
Toluene	ND		1.0		ug/L			05/13/24 22:23	1
Trichloroethene	ND		1.0		ug/L			05/13/24 22:23	1
Xylenes, Total	ND		2.0		ug/L			05/13/24 22:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		05/13/24 22:23	1
4-Bromofluorobenzene (Surr)	101		80 - 120		05/13/24 22:23	1
Dibromofluoromethane (Surr)	105		80 - 120		05/13/24 22:23	1
Toluene-d8 (Surr)	100		80 - 120		05/13/24 22:23	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.19		mg/L		05/13/24 08:49	05/14/24 17:55	1
Motor Oil (>C24-C36)	ND		0.34		mg/L		05/13/24 08:49	05/14/24 17:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	79		50 - 150	05/13/24 08:49	05/14/24 17:55	1

Client Sample Results

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Client Sample ID: MW-98

Lab Sample ID: 580-139881-12

Date Collected: 05/07/24 14:10

Matrix: Water

Date Received: 05/09/24 08:45

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			05/13/24 22:46	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			05/13/24 22:46	1
1,2-Dibromoethane	ND		1.0		ug/L			05/13/24 22:46	1
1,2-Dichloroethane	ND		1.0		ug/L			05/13/24 22:46	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/13/24 22:46	1
2-Butanone	ND		15		ug/L			05/13/24 22:46	1
Acetone	ND		15		ug/L			05/13/24 22:46	1
Benzene	ND		1.0		ug/L			05/13/24 22:46	1
Carbon disulfide	ND		1.0		ug/L			05/13/24 22:46	1
Chlorobenzene	ND		1.0		ug/L			05/13/24 22:46	1
Chloroform	ND		1.0		ug/L			05/13/24 22:46	1
Ethylbenzene	ND		1.0		ug/L			05/13/24 22:46	1
n-Butylbenzene	ND		1.0		ug/L			05/13/24 22:46	1
N-Propylbenzene	ND		1.0		ug/L			05/13/24 22:46	1
p-Isopropyltoluene	ND		1.0		ug/L			05/13/24 22:46	1
Styrene	ND		1.0		ug/L			05/13/24 22:46	1
Toluene	ND		1.0		ug/L			05/13/24 22:46	1
Trichloroethene	ND		1.0		ug/L			05/13/24 22:46	1
Xylenes, Total	ND		2.0		ug/L			05/13/24 22:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		80 - 120		05/13/24 22:46	1
4-Bromofluorobenzene (Surr)	102		80 - 120		05/13/24 22:46	1
Dibromofluoromethane (Surr)	105		80 - 120		05/13/24 22:46	1
Toluene-d8 (Surr)	101		80 - 120		05/13/24 22:46	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.25		0.21		mg/L		05/13/24 08:49	05/14/24 18:16	1
Motor Oil (>C24-C36)	ND		0.37		mg/L		05/13/24 08:49	05/14/24 18:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	66		50 - 150	05/13/24 08:49	05/14/24 18:16	1

Client Sample Results

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Client Sample ID: SWMU 11-FEB-1

Lab Sample ID: 580-139881-13

Date Collected: 05/07/24 14:05

Matrix: Water

Date Received: 05/09/24 08:45

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			05/13/24 23:09	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			05/13/24 23:09	1
1,2-Dibromoethane	ND		1.0		ug/L			05/13/24 23:09	1
1,2-Dichloroethane	ND		1.0		ug/L			05/13/24 23:09	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/13/24 23:09	1
2-Butanone	ND		15		ug/L			05/13/24 23:09	1
Acetone	ND		15		ug/L			05/13/24 23:09	1
Benzene	ND		1.0		ug/L			05/13/24 23:09	1
Carbon disulfide	ND		1.0		ug/L			05/13/24 23:09	1
Chlorobenzene	ND		1.0		ug/L			05/13/24 23:09	1
Chloroform	ND		1.0		ug/L			05/13/24 23:09	1
Ethylbenzene	ND		1.0		ug/L			05/13/24 23:09	1
n-Butylbenzene	ND		1.0		ug/L			05/13/24 23:09	1
N-Propylbenzene	ND		1.0		ug/L			05/13/24 23:09	1
p-Isopropyltoluene	ND		1.0		ug/L			05/13/24 23:09	1
Styrene	ND		1.0		ug/L			05/13/24 23:09	1
Toluene	ND		1.0		ug/L			05/13/24 23:09	1
Trichloroethene	ND		1.0		ug/L			05/13/24 23:09	1
Xylenes, Total	ND		2.0		ug/L			05/13/24 23:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 120		05/13/24 23:09	1
4-Bromofluorobenzene (Surr)	100		80 - 120		05/13/24 23:09	1
Dibromofluoromethane (Surr)	100		80 - 120		05/13/24 23:09	1
Toluene-d8 (Surr)	100		80 - 120		05/13/24 23:09	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.20		mg/L		05/13/24 08:49	05/14/24 18:37	1
Motor Oil (>C24-C36)	ND		0.35		mg/L		05/13/24 08:49	05/14/24 18:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	91		50 - 150	05/13/24 08:49	05/14/24 18:37	1

Client Sample Results

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Client Sample ID: SWMU 11-DUP-1

Lab Sample ID: 580-139881-14

Date Collected: 05/08/24 08:00

Matrix: Water

Date Received: 05/09/24 08:45

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			05/14/24 02:14	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			05/14/24 02:14	1
1,2-Dibromoethane	ND		1.0		ug/L			05/14/24 02:14	1
1,2-Dichloroethane	ND		1.0		ug/L			05/14/24 02:14	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/14/24 02:14	1
2-Butanone	ND		15		ug/L			05/14/24 02:14	1
Acetone	ND		15		ug/L			05/14/24 02:14	1
Benzene	ND		1.0		ug/L			05/14/24 02:14	1
Carbon disulfide	ND		1.0		ug/L			05/14/24 02:14	1
Chlorobenzene	ND		1.0		ug/L			05/14/24 02:14	1
Chloroform	ND		1.0		ug/L			05/14/24 02:14	1
Ethylbenzene	ND		1.0		ug/L			05/14/24 02:14	1
n-Butylbenzene	3.3		1.0		ug/L			05/14/24 02:14	1
N-Propylbenzene	2.8		1.0		ug/L			05/14/24 02:14	1
p-Isopropyltoluene	ND		1.0		ug/L			05/14/24 02:14	1
Styrene	ND		1.0		ug/L			05/14/24 02:14	1
Toluene	ND		1.0		ug/L			05/14/24 02:14	1
Trichloroethene	ND		1.0		ug/L			05/14/24 02:14	1
Xylenes, Total	ND		2.0		ug/L			05/14/24 02:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		80 - 120		05/14/24 02:14	1
4-Bromofluorobenzene (Surr)	102		80 - 120		05/14/24 02:14	1
Dibromofluoromethane (Surr)	105		80 - 120		05/14/24 02:14	1
Toluene-d8 (Surr)	100		80 - 120		05/14/24 02:14	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	14		0.20		mg/L		05/13/24 08:49	05/14/24 18:58	1
Motor Oil (>C24-C36)	1.7		0.35		mg/L		05/13/24 08:49	05/14/24 18:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	76		50 - 150	05/13/24 08:49	05/14/24 18:58	1

Client Sample Results

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Client Sample ID: Trip Blanks

Lab Sample ID: 580-139881-15

Date Collected: 05/08/24 16:00

Matrix: Water

Date Received: 05/09/24 08:45

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			05/15/24 02:59	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			05/15/24 02:59	1
1,2-Dibromoethane	ND		1.0		ug/L			05/15/24 02:59	1
1,2-Dichloroethane	ND		1.0		ug/L			05/15/24 02:59	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/15/24 02:59	1
2-Butanone	ND		15		ug/L			05/15/24 02:59	1
Acetone	ND		15		ug/L			05/15/24 02:59	1
Benzene	ND		1.0		ug/L			05/15/24 02:59	1
Carbon disulfide	ND		1.0		ug/L			05/15/24 02:59	1
Chlorobenzene	ND		1.0		ug/L			05/15/24 02:59	1
Chloroform	ND		1.0		ug/L			05/15/24 02:59	1
Ethylbenzene	ND		1.0		ug/L			05/15/24 02:59	1
n-Butylbenzene	ND		1.0		ug/L			05/15/24 02:59	1
N-Propylbenzene	ND		1.0		ug/L			05/15/24 02:59	1
p-Isopropyltoluene	ND		1.0		ug/L			05/15/24 02:59	1
Styrene	ND		1.0		ug/L			05/15/24 02:59	1
Toluene	ND		1.0		ug/L			05/15/24 02:59	1
Trichloroethene	ND		1.0		ug/L			05/15/24 02:59	1
Xylenes, Total	ND		2.0		ug/L			05/15/24 02:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		05/15/24 02:59	1
4-Bromofluorobenzene (Surr)	104		80 - 120		05/15/24 02:59	1
Dibromofluoromethane (Surr)	106		80 - 120		05/15/24 02:59	1
Toluene-d8 (Surr)	101		80 - 120		05/15/24 02:59	1

QC Sample Results

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 580-459183/10

Matrix: Water

Analysis Batch: 459183

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			05/13/24 16:59	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			05/13/24 16:59	1
1,2-Dibromoethane	ND		1.0		ug/L			05/13/24 16:59	1
1,2-Dichloroethane	ND		1.0		ug/L			05/13/24 16:59	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/13/24 16:59	1
2-Butanone	ND		15		ug/L			05/13/24 16:59	1
Acetone	ND		15		ug/L			05/13/24 16:59	1
Benzene	ND		1.0		ug/L			05/13/24 16:59	1
Carbon disulfide	ND		1.0		ug/L			05/13/24 16:59	1
Chlorobenzene	ND		1.0		ug/L			05/13/24 16:59	1
Chloroform	ND		1.0		ug/L			05/13/24 16:59	1
Ethylbenzene	ND		1.0		ug/L			05/13/24 16:59	1
n-Butylbenzene	ND		1.0		ug/L			05/13/24 16:59	1
N-Propylbenzene	ND		1.0		ug/L			05/13/24 16:59	1
p-Isopropyltoluene	ND		1.0		ug/L			05/13/24 16:59	1
Styrene	ND		1.0		ug/L			05/13/24 16:59	1
Toluene	ND		1.0		ug/L			05/13/24 16:59	1
Trichloroethene	ND		1.0		ug/L			05/13/24 16:59	1
Xylenes, Total	ND		2.0		ug/L			05/13/24 16:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		05/13/24 16:59	1
4-Bromofluorobenzene (Surr)	100		80 - 120		05/13/24 16:59	1
Dibromofluoromethane (Surr)	101		80 - 120		05/13/24 16:59	1
Toluene-d8 (Surr)	102		80 - 120		05/13/24 16:59	1

Lab Sample ID: LCS 580-459183/7

Matrix: Water

Analysis Batch: 459183

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	10.0	10.4		ug/L		104	74 - 130
1,2,4-Trimethylbenzene	10.0	10.7		ug/L		107	80 - 120
1,2-Dibromoethane	10.0	10.6		ug/L		106	79 - 126
1,2-Dichloroethane	10.0	9.25		ug/L		92	69 - 126
1,3,5-Trimethylbenzene	10.0	10.8		ug/L		108	80 - 122
2-Butanone	50.0	44.1		ug/L		88	65 - 137
Acetone	50.0	46.1		ug/L		92	44 - 150
Benzene	10.0	9.91		ug/L		99	80 - 122
Carbon disulfide	10.0	10.9		ug/L		109	63 - 134
Chlorobenzene	10.0	10.6		ug/L		106	80 - 120
Chloroform	10.0	10.0		ug/L		100	78 - 127
Ethylbenzene	10.0	10.5		ug/L		105	80 - 120
m-Xylene & p-Xylene	10.0	10.5		ug/L		105	80 - 120
n-Butylbenzene	10.0	11.0		ug/L		110	57 - 133
N-Propylbenzene	10.0	10.7		ug/L		107	80 - 122
o-Xylene	10.0	10.3		ug/L		103	80 - 120
p-Isopropyltoluene	10.0	10.9		ug/L		109	77 - 126

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QC Sample Results

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

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

Lab Sample ID: LCS 580-459183/7

Matrix: Water

Analysis Batch: 459183

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Styrene	10.0	10.7		ug/L		107	76 - 122
Toluene	10.0	9.99		ug/L		100	80 - 120
Trichloroethene	10.0	10.4		ug/L		104	80 - 125
Xylenes, Total	20.0	20.8		ug/L		104	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		80 - 120
4-Bromofluorobenzene (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	98		80 - 120
Toluene-d8 (Surr)	102		80 - 120

Lab Sample ID: LCSD 580-459183/8

Matrix: Water

Analysis Batch: 459183

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	10.0	10.6		ug/L		106	74 - 130	2	19
1,2,4-Trimethylbenzene	10.0	9.79		ug/L		98	80 - 120	8	16
1,2-Dibromoethane	10.0	10.3		ug/L		103	79 - 126	3	12
1,2-Dichloroethane	10.0	9.29		ug/L		93	69 - 126	1	11
1,3,5-Trimethylbenzene	10.0	9.99		ug/L		100	80 - 122	7	21
2-Butanone	50.0	45.4		ug/L		91	65 - 137	3	34
Acetone	50.0	47.3		ug/L		95	44 - 150	3	33
Benzene	10.0	9.81		ug/L		98	80 - 122	1	14
Carbon disulfide	10.0	10.9		ug/L		109	63 - 134	1	24
Chlorobenzene	10.0	10.3		ug/L		103	80 - 120	3	10
Chloroform	10.0	9.96		ug/L		100	78 - 127	0	14
Ethylbenzene	10.0	10.2		ug/L		102	80 - 120	4	14
m-Xylene & p-Xylene	10.0	10.1		ug/L		101	80 - 120	4	14
n-Butylbenzene	10.0	10.2		ug/L		102	57 - 133	7	14
N-Propylbenzene	10.0	10.2		ug/L		102	80 - 122	5	22
o-Xylene	10.0	9.97		ug/L		100	80 - 120	3	16
p-Isopropyltoluene	10.0	10.2		ug/L		102	77 - 126	7	20
Styrene	10.0	10.3		ug/L		103	76 - 122	3	16
Toluene	10.0	9.63		ug/L		96	80 - 120	4	13
Trichloroethene	10.0	10.3		ug/L		103	80 - 125	1	13
Xylenes, Total	20.0	20.1		ug/L		100	80 - 120	4	16

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	100		80 - 120
Toluene-d8 (Surr)	101		80 - 120

QC Sample Results

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

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

Lab Sample ID: MB 580-459437/11

Matrix: Water

Analysis Batch: 459437

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			05/15/24 02:36	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			05/15/24 02:36	1
1,2-Dibromoethane	ND		1.0		ug/L			05/15/24 02:36	1
1,2-Dichloroethane	ND		1.0		ug/L			05/15/24 02:36	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/15/24 02:36	1
2-Butanone	ND		15		ug/L			05/15/24 02:36	1
Acetone	ND		15		ug/L			05/15/24 02:36	1
Benzene	ND		1.0		ug/L			05/15/24 02:36	1
Carbon disulfide	ND		1.0		ug/L			05/15/24 02:36	1
Chlorobenzene	ND		1.0		ug/L			05/15/24 02:36	1
Chloroform	ND		1.0		ug/L			05/15/24 02:36	1
Ethylbenzene	ND		1.0		ug/L			05/15/24 02:36	1
n-Butylbenzene	ND		1.0		ug/L			05/15/24 02:36	1
N-Propylbenzene	ND		1.0		ug/L			05/15/24 02:36	1
p-Isopropyltoluene	ND		1.0		ug/L			05/15/24 02:36	1
Styrene	ND		1.0		ug/L			05/15/24 02:36	1
Toluene	ND		1.0		ug/L			05/15/24 02:36	1
Trichloroethene	ND		1.0		ug/L			05/15/24 02:36	1
Xylenes, Total	ND		2.0		ug/L			05/15/24 02:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		05/15/24 02:36	1
4-Bromofluorobenzene (Surr)	104		80 - 120		05/15/24 02:36	1
Dibromofluoromethane (Surr)	102		80 - 120		05/15/24 02:36	1
Toluene-d8 (Surr)	99		80 - 120		05/15/24 02:36	1

Lab Sample ID: LCS 580-459437/6

Matrix: Water

Analysis Batch: 459437

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	5.00	5.03		ug/L		101	74 - 130
1,2,4-Trimethylbenzene	5.00	4.79		ug/L		96	80 - 120
1,2-Dibromoethane	5.00	4.94		ug/L		99	79 - 126
1,2-Dichloroethane	5.00	4.61		ug/L		92	69 - 126
1,3,5-Trimethylbenzene	5.00	4.90		ug/L		98	80 - 122
2-Butanone	25.0	21.6		ug/L		86	65 - 137
Acetone	25.0	19.9		ug/L		80	44 - 150
Benzene	5.00	4.79		ug/L		96	80 - 122
Carbon disulfide	5.00	5.09		ug/L		102	63 - 134
Chlorobenzene	5.00	5.12		ug/L		102	80 - 120
Chloroform	5.00	4.82		ug/L		96	78 - 127
Ethylbenzene	5.00	4.96		ug/L		99	80 - 120
m-Xylene & p-Xylene	5.00	5.07		ug/L		101	80 - 120
n-Butylbenzene	5.00	4.85		ug/L		97	57 - 133
N-Propylbenzene	5.00	4.91		ug/L		98	80 - 122
o-Xylene	5.00	4.93		ug/L		99	80 - 120
p-Isopropyltoluene	5.00	4.88		ug/L		98	77 - 126

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QC Sample Results

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

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

Lab Sample ID: LCS 580-459437/6

Matrix: Water

Analysis Batch: 459437

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Styrene	5.00	5.00		ug/L		100	76 - 122
Toluene	5.00	4.72		ug/L		94	80 - 120
Trichloroethene	5.00	4.92		ug/L		98	80 - 125
Xylenes, Total	10.0	10.0		ug/L		100	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		80 - 120
4-Bromofluorobenzene (Surr)	103		80 - 120
Dibromofluoromethane (Surr)	100		80 - 120
Toluene-d8 (Surr)	101		80 - 120

Lab Sample ID: LCSD 580-459437/7

Matrix: Water

Analysis Batch: 459437

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	5.00	5.37		ug/L		107	74 - 130	6	19
1,2,4-Trimethylbenzene	5.00	4.98		ug/L		100	80 - 120	4	16
1,2-Dibromoethane	5.00	5.07		ug/L		101	79 - 126	3	12
1,2-Dichloroethane	5.00	4.87		ug/L		97	69 - 126	6	11
1,3,5-Trimethylbenzene	5.00	5.10		ug/L		102	80 - 122	4	21
2-Butanone	25.0	21.7		ug/L		87	65 - 137	1	34
Acetone	25.0	23.4		ug/L		94	44 - 150	16	33
Benzene	5.00	5.03		ug/L		101	80 - 122	5	14
Carbon disulfide	5.00	5.66		ug/L		113	63 - 134	10	24
Chlorobenzene	5.00	5.30		ug/L		106	80 - 120	3	10
Chloroform	5.00	5.30		ug/L		106	78 - 127	9	14
Ethylbenzene	5.00	5.22		ug/L		104	80 - 120	5	14
m-Xylene & p-Xylene	5.00	5.36		ug/L		107	80 - 120	5	14
n-Butylbenzene	5.00	4.96		ug/L		99	57 - 133	2	14
N-Propylbenzene	5.00	5.29		ug/L		106	80 - 122	7	22
o-Xylene	5.00	5.30		ug/L		106	80 - 120	7	16
p-Isopropyltoluene	5.00	5.16		ug/L		103	77 - 126	6	20
Styrene	5.00	5.39		ug/L		108	76 - 122	8	16
Toluene	5.00	5.02		ug/L		100	80 - 120	6	13
Trichloroethene	5.00	5.19		ug/L		104	80 - 125	5	13
Xylenes, Total	10.0	10.7		ug/L		107	80 - 120	6	16

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		80 - 120
4-Bromofluorobenzene (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	103		80 - 120
Toluene-d8 (Surr)	101		80 - 120

QC Sample Results

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-459167/1-A

Matrix: Water

Analysis Batch: 459185

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 459167

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.20		mg/L		05/13/24 08:44	05/13/24 16:06	1
Motor Oil (>C24-C36)	ND		0.35		mg/L		05/13/24 08:44	05/13/24 16:06	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	67		50 - 150				05/13/24 08:44	05/13/24 16:06	1

Lab Sample ID: LCS 580-459167/2-A

Matrix: Water

Analysis Batch: 459185

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 459167

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
#2 Diesel (C10-C24)	4.00	3.61		mg/L		90	50 - 120		
Motor Oil (>C24-C36)	4.00	3.76		mg/L		94	64 - 120		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
o-Terphenyl	85		50 - 150						

Lab Sample ID: LCSD 580-459167/3-A

Matrix: Water

Analysis Batch: 459185

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 459167

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	4.00	3.40		mg/L		85	50 - 120	6	26
Motor Oil (>C24-C36)	4.00	3.41		mg/L		85	64 - 120	10	24
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
o-Terphenyl	83		50 - 150						

Lab Sample ID: MB 580-459168/1-A

Matrix: Water

Analysis Batch: 459358

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 459168

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.20		mg/L		05/13/24 08:49	05/14/24 16:53	1
Motor Oil (>C24-C36)	ND		0.35		mg/L		05/13/24 08:49	05/14/24 16:53	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	76		50 - 150				05/13/24 08:49	05/14/24 16:53	1

Lab Sample ID: LCS 580-459168/2-A

Matrix: Water

Analysis Batch: 459481

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 459168

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
#2 Diesel (C10-C24)	4.00	2.46		mg/L		62	50 - 120		
Motor Oil (>C24-C36)	4.00	2.67		mg/L		67	64 - 120		

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QC Sample Results

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 580-459168/2-A

Matrix: Water

Analysis Batch: 459481

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 459168

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl	64		50 - 150

Lab Sample ID: LCSD 580-459168/3-A

Matrix: Water

Analysis Batch: 459358

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 459168

	Spike	LCSD	LCSD					%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
#2 Diesel (C10-C24)	4.00	2.83		mg/L		71	50 - 120	14	26
Motor Oil (>C24-C36)	4.00	2.83		mg/L		71	64 - 120	6	24

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl	73		50 - 150

Lab Chronicle

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Client Sample ID: MW-60

Lab Sample ID: 580-139881-1

Date Collected: 05/07/24 14:30

Matrix: Water

Date Received: 05/09/24 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	459183	AA	EET SEA	05/13/24 20:04
Total/NA	Prep	3510C			459167	TOA	EET SEA	05/13/24 08:44
Total/NA	Analysis	NWTPH-Dx		1	459354	SW	EET SEA	05/14/24 12:11

Client Sample ID: MW-61

Lab Sample ID: 580-139881-2

Date Collected: 05/07/24 14:40

Matrix: Water

Date Received: 05/09/24 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	459183	AA	EET SEA	05/13/24 20:27
Total/NA	Prep	3510C			459167	TOA	EET SEA	05/13/24 08:44
Total/NA	Analysis	NWTPH-Dx		1	459185	SW	EET SEA	05/13/24 21:06

Client Sample ID: MW-63

Lab Sample ID: 580-139881-3

Date Collected: 05/08/24 11:00

Matrix: Water

Date Received: 05/09/24 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	459183	AA	EET SEA	05/14/24 01:51
Total/NA	Prep	3510C			459167	TOA	EET SEA	05/13/24 08:44
Total/NA	Analysis	NWTPH-Dx		1	459185	SW	EET SEA	05/13/24 21:27

Client Sample ID: MW-64

Lab Sample ID: 580-139881-4

Date Collected: 05/08/24 11:55

Matrix: Water

Date Received: 05/09/24 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	459183	AA	EET SEA	05/14/24 00:41
Total/NA	Prep	3510C			459167	TOA	EET SEA	05/13/24 08:44
Total/NA	Analysis	NWTPH-Dx		1	459185	SW	EET SEA	05/13/24 21:47

Client Sample ID: MW-65

Lab Sample ID: 580-139881-5

Date Collected: 05/08/24 10:55

Matrix: Water

Date Received: 05/09/24 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	459183	AA	EET SEA	05/14/24 01:04
Total/NA	Prep	3510C			459167	TOA	EET SEA	05/13/24 08:44
Total/NA	Analysis	NWTPH-Dx		1	459185	SW	EET SEA	05/13/24 22:07

Client Sample ID: MW-91

Lab Sample ID: 580-139881-6

Date Collected: 05/07/24 12:10

Matrix: Water

Date Received: 05/09/24 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	459183	AA	EET SEA	05/13/24 20:50

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Lab Chronicle

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Client Sample ID: MW-91

Lab Sample ID: 580-139881-6

Date Collected: 05/07/24 12:10

Matrix: Water

Date Received: 05/09/24 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			459167	TOA	EET SEA	05/13/24 08:44
Total/NA	Analysis	NWTPH-Dx		1	459185	SW	EET SEA	05/13/24 22:27

Client Sample ID: MW-92

Lab Sample ID: 580-139881-7

Date Collected: 05/07/24 12:10

Matrix: Water

Date Received: 05/09/24 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	459183	AA	EET SEA	05/13/24 21:13
Total/NA	Prep	3510C			459167	TOA	EET SEA	05/13/24 08:44
Total/NA	Analysis	NWTPH-Dx		1	459185	SW	EET SEA	05/13/24 22:47

Client Sample ID: MW-93

Lab Sample ID: 580-139881-8

Date Collected: 05/07/24 12:25

Matrix: Water

Date Received: 05/09/24 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	459183	AA	EET SEA	05/13/24 21:36
Total/NA	Prep	3510C			459167	TOA	EET SEA	05/13/24 08:44
Total/NA	Analysis	NWTPH-Dx		1	459185	SW	EET SEA	05/13/24 23:07

Client Sample ID: MW-94

Lab Sample ID: 580-139881-9

Date Collected: 05/07/24 15:00

Matrix: Water

Date Received: 05/09/24 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	459183	AA	EET SEA	05/13/24 22:00
Total/NA	Prep	3510C			459167	TOA	EET SEA	05/13/24 08:44
Total/NA	Analysis	NWTPH-Dx		1	459185	SW	EET SEA	05/13/24 23:27

Client Sample ID: MW-95

Lab Sample ID: 580-139881-10

Date Collected: 05/08/24 11:50

Matrix: Water

Date Received: 05/09/24 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	459183	AA	EET SEA	05/14/24 01:27
Total/NA	Prep	3510C			459167	TOA	EET SEA	05/13/24 08:44
Total/NA	Analysis	NWTPH-Dx		1	459185	SW	EET SEA	05/13/24 23:47

Client Sample ID: MW-96

Lab Sample ID: 580-139881-11

Date Collected: 05/07/24 15:30

Matrix: Water

Date Received: 05/09/24 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	459183	AA	EET SEA	05/13/24 22:23

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Lab Chronicle

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Client Sample ID: MW-96

Lab Sample ID: 580-139881-11

Date Collected: 05/07/24 15:30

Matrix: Water

Date Received: 05/09/24 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			459168	TOA	EET SEA	05/13/24 08:49
Total/NA	Analysis	NWTPH-Dx		1	459358	SW	EET SEA	05/14/24 17:55

Client Sample ID: MW-98

Lab Sample ID: 580-139881-12

Date Collected: 05/07/24 14:10

Matrix: Water

Date Received: 05/09/24 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	459183	AA	EET SEA	05/13/24 22:46
Total/NA	Prep	3510C			459168	TOA	EET SEA	05/13/24 08:49
Total/NA	Analysis	NWTPH-Dx		1	459358	SW	EET SEA	05/14/24 18:16

Client Sample ID: SWMU 11-FEB-1

Lab Sample ID: 580-139881-13

Date Collected: 05/07/24 14:05

Matrix: Water

Date Received: 05/09/24 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	459183	AA	EET SEA	05/13/24 23:09
Total/NA	Prep	3510C			459168	TOA	EET SEA	05/13/24 08:49
Total/NA	Analysis	NWTPH-Dx		1	459358	SW	EET SEA	05/14/24 18:37

Client Sample ID: SWMU 11-DUP-1

Lab Sample ID: 580-139881-14

Date Collected: 05/08/24 08:00

Matrix: Water

Date Received: 05/09/24 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	459183	AA	EET SEA	05/14/24 02:14
Total/NA	Prep	3510C			459168	TOA	EET SEA	05/13/24 08:49
Total/NA	Analysis	NWTPH-Dx		1	459358	SW	EET SEA	05/14/24 18:58

Client Sample ID: Trip Blanks

Lab Sample ID: 580-139881-15

Date Collected: 05/08/24 16:00

Matrix: Water

Date Received: 05/09/24 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	459437	AA	EET SEA	05/15/24 02:59

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C788	07-13-24

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Sample Summary

Client: ALL 4, LLC
Project/Site: HFS GW Monitoring - C

Job ID: 580-139881-1
SDG: Washington

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-139881-1	MW-60	Water	05/07/24 14:30	05/09/24 08:45
580-139881-2	MW-61	Water	05/07/24 14:40	05/09/24 08:45
580-139881-3	MW-63	Water	05/08/24 11:00	05/09/24 08:45
580-139881-4	MW-64	Water	05/08/24 11:55	05/09/24 08:45
580-139881-5	MW-65	Water	05/08/24 10:55	05/09/24 08:45
580-139881-6	MW-91	Water	05/07/24 12:10	05/09/24 08:45
580-139881-7	MW-92	Water	05/07/24 12:10	05/09/24 08:45
580-139881-8	MW-93	Water	05/07/24 12:25	05/09/24 08:45
580-139881-9	MW-94	Water	05/07/24 15:00	05/09/24 08:45
580-139881-10	MW-95	Water	05/08/24 11:50	05/09/24 08:45
580-139881-11	MW-96	Water	05/07/24 15:30	05/09/24 08:45
580-139881-12	MW-98	Water	05/07/24 14:10	05/09/24 08:45
580-139881-13	SWMU 11-FEB-1	Water	05/07/24 14:05	05/09/24 08:45
580-139881-14	SWMU 11-DUP-1	Water	05/08/24 08:00	05/09/24 08:45
580-139881-15	Trip Blanks	Water	05/08/24 16:00	05/09/24 08:45

Eurofins Seattle
5755 8th Street East
Tacoma, WA 98424
Phone (253) 922-2310

Chain of Custody Record



Client Information		Sampler:		Lab PM:		Carrier Tracking No(s):		COC No:	
Client Contact: Jim Schneider		Phone: 360-752-9571		E-Mail: Laura.Schick@ETEurofinsUS.com		FedEx WA		Page 1 of 2	
Company:		PWSID:		Analysis Requested		Job #:		Preservation Codes:	
HF Sinclair Puget Sound Refining LLC		Due Date Requested:		TAT Requested (days):		Standard		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - NaHSO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)	
Address: 8505 S Texas Road		City: Anacortes		State, Zip: WA, 98221		Phone: (360) 293-0868		Other:	
Email: jim.schneider@hfsincilair.com		Project Name: HFS GW Monitoring - C		Site: Washington		SSOW#:		Special Instructions/Note:	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=oil, BT=BTX, A=Al)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260 (see attached list)	Total Number of containers
MW-60	5/7/24	2:30	G	Water	No	X	X	X	5
MW-61	5/7/24	2:40	G	Water	No	X	X	X	5
MW-63	5/8/24	11:00	G	Water	No	X	X	X	5
MW-64	5/8/24	11:55	G	Water	No	X	X	X	5
MW-65	5/8/24	10:55	G	Water	No	X	X	X	5
MW-91	5/7/24	12:10	G	Water	No	X	X	X	5
MW-92	5/7/24	12:10	G	Water	No	X	X	X	5
MW-93	5/7/24	12:25	G	Water	No	X	X	X	5
MW-94	5/7/24	3:00	G	Water	No	X	X	X	5
MW-95	5/8/24	11:50	G	Water	No	X	X	X	5
MW-96	5/7/24	3:30	G	Water	No	X	X	X	5
Possible Hazard Identification Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological									
Deliverable Requested: I, II, III, IV, Other (specify)									
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Disposal By Lab Archive For Months									
Special Instructions/QC Requirements:									
Empty Kit Relinquished by: Date: Time: Method of Shipment:									
Relinquished by: Date/Time: 5/8/24 3:30 Company: WES AW4 Company: PETS									
Relinquished by: Date/Time: Company: Company:									
Relinquished by: Date/Time: Company: Company:									
Custody Seals Intact: Custody Seal No.: Cooler Temperature(s) °C and Other Remarks:									



580-139881 Chain of Custody

Ver: 01/16/2019

AB 10/10
10/15/24/800/100

Login Sample Receipt Checklist

Client: ALL 4, LLC

Job Number: 580-139881-1

SDG Number: Washington

Login Number: 139881

List Number: 1

Creator: Groves, Elizabeth

List Source: Eurofins Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

**APPENDIX D -
OCTOBER 2024 LABORATORY DATA REPORT**

ANALYTICAL REPORT

PREPARED FOR

Attn: Eric Libolt
ALL4, Inc.
228 East Champion Street #101
Bellingham, Washington 98225

Generated 10/28/2024 5:15:24 PM

JOB DESCRIPTION

2024 GW Monitoring - C

JOB NUMBER

580-144985-1

Eurofins Seattle

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



Generated
10/28/2024 5:15:24 PM

Authorized for release by
Laura Schick, Project Manager
Laura.Schick@et.eurofinsus.com
(253)922-2310

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Case Narrative

Client: ALL4, Inc.
Project: 2024 GW Monitoring - C

Job ID: 580-144985-1

Job ID: 580-144985-1

Eurofins Seattle

Job Narrative 580-144985-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 10/18/2024 9:50 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.5°C and 1.1°C.

Receipt Exceptions

The second page of the Chain-of-Custody (COC) was not received. Therefore, the following samples were added to the end of the login using the information listed on the container labels: MW-98 (580-144985-12), ALL4-FEB-1 (580-144985-13), ALL4-DUP-1 (580-144985-14) and Trip Blank (580-144985-15). Samples-12 through -14 were logged in for the following analyses of NWTPH_Dx and 8260D_Skinners List. Sample15 (trip blank) was logged using date/time of 10/17/2024 at 00:00 with analysis 8260D_Skinners list. Client emailed lab a copy of the second page of the COC on 10/21/2024 which has been included in the report.

GC/MS VOA

Method 8260D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 580-475472 recovered outside control limits for the following analytes: 1,2-Dibromoethane. The individual percent recoveries for the LCS/LCSD met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Hydrocarbons

Method NWTPH_Dx: Surrogate recovery for the following sample was outside control limits: MW-63 (580-144985-11). Evidence of matrix interference due to high target analytes is present; therefore, re-extraction and/or re-analysis was not performed.

Method NWTPH_Dx: The following samples contained a hydrocarbon pattern in the diesel range; however, the elution pattern is not the typical diesel fuel pattern used by the laboratory for quantitative purposes: MW-60 (580-144985-1), MW-61 (580-144985-2), MW-65 (580-144985-4), MW-92 (580-144985-6) and MW-94 (580-144985-8).

Method NWTPH_Dx: The following sample contained a hydrocarbon pattern in the diesel range; however, the elution pattern is not the typical diesel fuel pattern used by the laboratory for quantitative purposes: MW-98 (580-144985-12) and ALL4-DUP-1 (580-144985-14).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Seattle

Definitions/Glossary

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Client Sample ID: MW-60

Lab Sample ID: 580-144985-1

Date Collected: 10/17/24 10:30

Matrix: Water

Date Received: 10/18/24 09:50

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			10/19/24 22:34	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			10/19/24 22:34	1
1,2-Dibromoethane	ND		1.0		ug/L			10/19/24 22:34	1
1,2-Dichloroethane	ND		1.0		ug/L			10/19/24 22:34	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/19/24 22:34	1
2-Butanone	ND		15		ug/L			10/19/24 22:34	1
Acetone	ND		15		ug/L			10/19/24 22:34	1
Benzene	ND		1.0		ug/L			10/19/24 22:34	1
Carbon disulfide	ND		1.0		ug/L			10/19/24 22:34	1
Chlorobenzene	ND		1.0		ug/L			10/19/24 22:34	1
Chloroform	ND		1.0		ug/L			10/19/24 22:34	1
Ethylbenzene	ND		1.0		ug/L			10/19/24 22:34	1
n-Butylbenzene	ND		1.0		ug/L			10/19/24 22:34	1
N-Propylbenzene	ND		1.0		ug/L			10/19/24 22:34	1
p-Isopropyltoluene	ND		1.0		ug/L			10/19/24 22:34	1
Styrene	ND		1.0		ug/L			10/19/24 22:34	1
Toluene	ND		1.0		ug/L			10/19/24 22:34	1
Trichloroethene	ND		1.0		ug/L			10/19/24 22:34	1
Xylenes, Total	ND		2.0		ug/L			10/19/24 22:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		80 - 120		10/19/24 22:34	1
4-Bromofluorobenzene (Surr)	101		80 - 120		10/19/24 22:34	1
Dibromofluoromethane (Surr)	100		80 - 120		10/19/24 22:34	1
Toluene-d8 (Surr)	99		80 - 120		10/19/24 22:34	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.24		0.19		mg/L		10/21/24 08:28	10/22/24 04:33	1
Motor Oil (>C24-C36)	ND		0.33		mg/L		10/21/24 08:28	10/22/24 04:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	95		50 - 150	10/21/24 08:28	10/22/24 04:33	1

Client Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Client Sample ID: MW-61

Lab Sample ID: 580-144985-2

Date Collected: 10/16/24 14:30

Matrix: Water

Date Received: 10/18/24 09:50

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			10/22/24 05:27	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			10/22/24 05:27	1
1,2-Dibromoethane	ND	*1	1.0		ug/L			10/22/24 05:27	1
1,2-Dichloroethane	ND		1.0		ug/L			10/22/24 05:27	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/22/24 05:27	1
2-Butanone	ND		15		ug/L			10/22/24 05:27	1
Acetone	ND		15		ug/L			10/22/24 05:27	1
Benzene	ND		1.0		ug/L			10/22/24 05:27	1
Carbon disulfide	ND		1.0		ug/L			10/22/24 05:27	1
Chlorobenzene	ND		1.0		ug/L			10/22/24 05:27	1
Chloroform	ND		1.0		ug/L			10/22/24 05:27	1
Ethylbenzene	ND		1.0		ug/L			10/22/24 05:27	1
n-Butylbenzene	ND		1.0		ug/L			10/22/24 05:27	1
N-Propylbenzene	ND		1.0		ug/L			10/22/24 05:27	1
p-Isopropyltoluene	ND		1.0		ug/L			10/22/24 05:27	1
Styrene	ND		1.0		ug/L			10/22/24 05:27	1
Toluene	ND		1.0		ug/L			10/22/24 05:27	1
Trichloroethene	ND		1.0		ug/L			10/22/24 05:27	1
Xylenes, Total	ND		2.0		ug/L			10/22/24 05:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		80 - 120		10/22/24 05:27	1
4-Bromofluorobenzene (Surr)	105		80 - 120		10/22/24 05:27	1
Dibromofluoromethane (Surr)	109		80 - 120		10/22/24 05:27	1
Toluene-d8 (Surr)	96		80 - 120		10/22/24 05:27	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.62		0.21		mg/L		10/21/24 08:28	10/22/24 03:33	1
Motor Oil (>C24-C36)	0.53		0.36		mg/L		10/21/24 08:28	10/22/24 03:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	88		50 - 150	10/21/24 08:28	10/22/24 03:33	1

Client Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Client Sample ID: MW-64

Lab Sample ID: 580-144985-3

Date Collected: 10/17/24 11:45

Matrix: Water

Date Received: 10/18/24 09:50

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			10/19/24 22:55	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			10/19/24 22:55	1
1,2-Dibromoethane	ND		1.0		ug/L			10/19/24 22:55	1
1,2-Dichloroethane	ND		1.0		ug/L			10/19/24 22:55	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/19/24 22:55	1
2-Butanone	ND		15		ug/L			10/19/24 22:55	1
Acetone	ND		15		ug/L			10/19/24 22:55	1
Benzene	ND		1.0		ug/L			10/19/24 22:55	1
Carbon disulfide	ND		1.0		ug/L			10/19/24 22:55	1
Chlorobenzene	ND		1.0		ug/L			10/19/24 22:55	1
Chloroform	ND		1.0		ug/L			10/19/24 22:55	1
Ethylbenzene	ND		1.0		ug/L			10/19/24 22:55	1
n-Butylbenzene	ND		1.0		ug/L			10/19/24 22:55	1
N-Propylbenzene	3.8		1.0		ug/L			10/19/24 22:55	1
p-Isopropyltoluene	ND		1.0		ug/L			10/19/24 22:55	1
Styrene	ND		1.0		ug/L			10/19/24 22:55	1
Toluene	ND		1.0		ug/L			10/19/24 22:55	1
Trichloroethene	ND		1.0		ug/L			10/19/24 22:55	1
Xylenes, Total	ND		2.0		ug/L			10/19/24 22:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		80 - 120		10/19/24 22:55	1
4-Bromofluorobenzene (Surr)	103		80 - 120		10/19/24 22:55	1
Dibromofluoromethane (Surr)	98		80 - 120		10/19/24 22:55	1
Toluene-d8 (Surr)	99		80 - 120		10/19/24 22:55	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	13		0.20		mg/L		10/21/24 08:28	10/22/24 04:53	1
Motor Oil (>C24-C36)	2.2		0.35		mg/L		10/21/24 08:28	10/22/24 04:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	137		50 - 150	10/21/24 08:28	10/22/24 04:53	1

Client Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Client Sample ID: MW-65

Lab Sample ID: 580-144985-4

Date Collected: 10/16/24 11:00

Matrix: Water

Date Received: 10/18/24 09:50

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			10/22/24 05:50	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			10/22/24 05:50	1
1,2-Dibromoethane	ND	*1	1.0		ug/L			10/22/24 05:50	1
1,2-Dichloroethane	13		1.0		ug/L			10/22/24 05:50	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/22/24 05:50	1
2-Butanone	ND		15		ug/L			10/22/24 05:50	1
Acetone	ND		15		ug/L			10/22/24 05:50	1
Benzene	ND		1.0		ug/L			10/22/24 05:50	1
Carbon disulfide	ND		1.0		ug/L			10/22/24 05:50	1
Chlorobenzene	ND		1.0		ug/L			10/22/24 05:50	1
Chloroform	ND		1.0		ug/L			10/22/24 05:50	1
Ethylbenzene	ND		1.0		ug/L			10/22/24 05:50	1
n-Butylbenzene	ND		1.0		ug/L			10/22/24 05:50	1
N-Propylbenzene	ND		1.0		ug/L			10/22/24 05:50	1
p-Isopropyltoluene	ND		1.0		ug/L			10/22/24 05:50	1
Styrene	ND		1.0		ug/L			10/22/24 05:50	1
Toluene	ND		1.0		ug/L			10/22/24 05:50	1
Trichloroethene	ND		1.0		ug/L			10/22/24 05:50	1
Xylenes, Total	ND		2.0		ug/L			10/22/24 05:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		80 - 120		10/22/24 05:50	1
4-Bromofluorobenzene (Surr)	102		80 - 120		10/22/24 05:50	1
Dibromofluoromethane (Surr)	103		80 - 120		10/22/24 05:50	1
Toluene-d8 (Surr)	98		80 - 120		10/22/24 05:50	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.24		0.21		mg/L		10/21/24 08:28	10/22/24 03:53	1
Motor Oil (>C24-C36)	ND		0.36		mg/L		10/21/24 08:28	10/22/24 03:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	93		50 - 150	10/21/24 08:28	10/22/24 03:53	1

Client Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Client Sample ID: MW-91

Lab Sample ID: 580-144985-5

Date Collected: 10/16/24 14:00

Matrix: Water

Date Received: 10/18/24 09:50

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			10/22/24 06:13	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			10/22/24 06:13	1
1,2-Dibromoethane	ND	*1	1.0		ug/L			10/22/24 06:13	1
1,2-Dichloroethane	ND		1.0		ug/L			10/22/24 06:13	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/22/24 06:13	1
2-Butanone	ND		15		ug/L			10/22/24 06:13	1
Acetone	ND		15		ug/L			10/22/24 06:13	1
Benzene	ND		1.0		ug/L			10/22/24 06:13	1
Carbon disulfide	ND		1.0		ug/L			10/22/24 06:13	1
Chlorobenzene	ND		1.0		ug/L			10/22/24 06:13	1
Chloroform	ND		1.0		ug/L			10/22/24 06:13	1
Ethylbenzene	ND		1.0		ug/L			10/22/24 06:13	1
n-Butylbenzene	ND		1.0		ug/L			10/22/24 06:13	1
N-Propylbenzene	ND		1.0		ug/L			10/22/24 06:13	1
p-Isopropyltoluene	ND		1.0		ug/L			10/22/24 06:13	1
Styrene	ND		1.0		ug/L			10/22/24 06:13	1
Toluene	ND		1.0		ug/L			10/22/24 06:13	1
Trichloroethene	ND		1.0		ug/L			10/22/24 06:13	1
Xylenes, Total	ND		2.0		ug/L			10/22/24 06:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		10/22/24 06:13	1
4-Bromofluorobenzene (Surr)	105		80 - 120		10/22/24 06:13	1
Dibromofluoromethane (Surr)	111		80 - 120		10/22/24 06:13	1
Toluene-d8 (Surr)	97		80 - 120		10/22/24 06:13	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	3.4		0.21		mg/L		10/21/24 08:28	10/22/24 04:13	1
Motor Oil (>C24-C36)	1.9		0.37		mg/L		10/21/24 08:28	10/22/24 04:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	86		50 - 150	10/21/24 08:28	10/22/24 04:13	1

Client Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Client Sample ID: MW-92

Lab Sample ID: 580-144985-6

Date Collected: 10/17/24 09:20

Matrix: Water

Date Received: 10/18/24 09:50

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			10/19/24 23:16	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			10/19/24 23:16	1
1,2-Dibromoethane	ND		1.0		ug/L			10/19/24 23:16	1
1,2-Dichloroethane	1.9		1.0		ug/L			10/19/24 23:16	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/19/24 23:16	1
2-Butanone	ND		15		ug/L			10/19/24 23:16	1
Acetone	19		15		ug/L			10/19/24 23:16	1
Benzene	ND		1.0		ug/L			10/19/24 23:16	1
Carbon disulfide	ND		1.0		ug/L			10/19/24 23:16	1
Chlorobenzene	ND		1.0		ug/L			10/19/24 23:16	1
Chloroform	ND		1.0		ug/L			10/19/24 23:16	1
Ethylbenzene	ND		1.0		ug/L			10/19/24 23:16	1
n-Butylbenzene	ND		1.0		ug/L			10/19/24 23:16	1
N-Propylbenzene	ND		1.0		ug/L			10/19/24 23:16	1
p-Isopropyltoluene	ND		1.0		ug/L			10/19/24 23:16	1
Styrene	ND		1.0		ug/L			10/19/24 23:16	1
Toluene	ND		1.0		ug/L			10/19/24 23:16	1
Trichloroethene	ND		1.0		ug/L			10/19/24 23:16	1
Xylenes, Total	ND		2.0		ug/L			10/19/24 23:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		80 - 120		10/19/24 23:16	1
4-Bromofluorobenzene (Surr)	101		80 - 120		10/19/24 23:16	1
Dibromofluoromethane (Surr)	97		80 - 120		10/19/24 23:16	1
Toluene-d8 (Surr)	100		80 - 120		10/19/24 23:16	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.55		0.19		mg/L		10/21/24 08:28	10/22/24 05:13	1
Motor Oil (>C24-C36)	ND		0.34		mg/L		10/21/24 08:28	10/22/24 05:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	93		50 - 150	10/21/24 08:28	10/22/24 05:13	1

Client Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Client Sample ID: MW-93

Lab Sample ID: 580-144985-7

Date Collected: 10/17/24 10:00

Matrix: Water

Date Received: 10/18/24 09:50

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			10/19/24 23:37	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			10/19/24 23:37	1
1,2-Dibromoethane	ND		1.0		ug/L			10/19/24 23:37	1
1,2-Dichloroethane	ND		1.0		ug/L			10/19/24 23:37	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/19/24 23:37	1
2-Butanone	ND		15		ug/L			10/19/24 23:37	1
Acetone	ND		15		ug/L			10/19/24 23:37	1
Benzene	ND		1.0		ug/L			10/19/24 23:37	1
Carbon disulfide	ND		1.0		ug/L			10/19/24 23:37	1
Chlorobenzene	ND		1.0		ug/L			10/19/24 23:37	1
Chloroform	ND		1.0		ug/L			10/19/24 23:37	1
Ethylbenzene	ND		1.0		ug/L			10/19/24 23:37	1
n-Butylbenzene	3.7		1.0		ug/L			10/19/24 23:37	1
N-Propylbenzene	11		1.0		ug/L			10/19/24 23:37	1
p-Isopropyltoluene	ND		1.0		ug/L			10/19/24 23:37	1
Styrene	ND		1.0		ug/L			10/19/24 23:37	1
Toluene	ND		1.0		ug/L			10/19/24 23:37	1
Trichloroethene	ND		1.0		ug/L			10/19/24 23:37	1
Xylenes, Total	ND		2.0		ug/L			10/19/24 23:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		80 - 120		10/19/24 23:37	1
4-Bromofluorobenzene (Surr)	102		80 - 120		10/19/24 23:37	1
Dibromofluoromethane (Surr)	100		80 - 120		10/19/24 23:37	1
Toluene-d8 (Surr)	98		80 - 120		10/19/24 23:37	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	1.2		0.20		mg/L		10/21/24 08:28	10/22/24 05:33	1
Motor Oil (>C24-C36)	0.64		0.34		mg/L		10/21/24 08:28	10/22/24 05:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	77		50 - 150	10/21/24 08:28	10/22/24 05:33	1

Client Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Client Sample ID: MW-94

Lab Sample ID: 580-144985-8

Date Collected: 10/17/24 12:00

Matrix: Water

Date Received: 10/18/24 09:50

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			10/19/24 23:58	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			10/19/24 23:58	1
1,2-Dibromoethane	ND		1.0		ug/L			10/19/24 23:58	1
1,2-Dichloroethane	ND		1.0		ug/L			10/19/24 23:58	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/19/24 23:58	1
2-Butanone	ND		15		ug/L			10/19/24 23:58	1
Acetone	ND		15		ug/L			10/19/24 23:58	1
Benzene	ND		1.0		ug/L			10/19/24 23:58	1
Carbon disulfide	ND		1.0		ug/L			10/19/24 23:58	1
Chlorobenzene	ND		1.0		ug/L			10/19/24 23:58	1
Chloroform	ND		1.0		ug/L			10/19/24 23:58	1
Ethylbenzene	ND		1.0		ug/L			10/19/24 23:58	1
n-Butylbenzene	ND		1.0		ug/L			10/19/24 23:58	1
N-Propylbenzene	ND		1.0		ug/L			10/19/24 23:58	1
p-Isopropyltoluene	ND		1.0		ug/L			10/19/24 23:58	1
Styrene	ND		1.0		ug/L			10/19/24 23:58	1
Toluene	ND		1.0		ug/L			10/19/24 23:58	1
Trichloroethene	ND		1.0		ug/L			10/19/24 23:58	1
Xylenes, Total	ND		2.0		ug/L			10/19/24 23:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		80 - 120		10/19/24 23:58	1
4-Bromofluorobenzene (Surr)	99		80 - 120		10/19/24 23:58	1
Dibromofluoromethane (Surr)	101		80 - 120		10/19/24 23:58	1
Toluene-d8 (Surr)	100		80 - 120		10/19/24 23:58	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.27		0.20		mg/L		10/21/24 08:28	10/22/24 05:53	1
Motor Oil (>C24-C36)	ND		0.36		mg/L		10/21/24 08:28	10/22/24 05:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	81		50 - 150	10/21/24 08:28	10/22/24 05:53	1

Client Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Client Sample ID: MW-95

Lab Sample ID: 580-144985-9

Date Collected: 10/17/24 12:30

Matrix: Water

Date Received: 10/18/24 09:50

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			10/20/24 00:19	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			10/20/24 00:19	1
1,2-Dibromoethane	ND		1.0		ug/L			10/20/24 00:19	1
1,2-Dichloroethane	ND		1.0		ug/L			10/20/24 00:19	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/20/24 00:19	1
2-Butanone	ND		15		ug/L			10/20/24 00:19	1
Acetone	ND		15		ug/L			10/20/24 00:19	1
Benzene	ND		1.0		ug/L			10/20/24 00:19	1
Carbon disulfide	ND		1.0		ug/L			10/20/24 00:19	1
Chlorobenzene	ND		1.0		ug/L			10/20/24 00:19	1
Chloroform	ND		1.0		ug/L			10/20/24 00:19	1
Ethylbenzene	ND		1.0		ug/L			10/20/24 00:19	1
n-Butylbenzene	2.8		1.0		ug/L			10/20/24 00:19	1
N-Propylbenzene	ND		1.0		ug/L			10/20/24 00:19	1
p-Isopropyltoluene	ND		1.0		ug/L			10/20/24 00:19	1
Styrene	ND		1.0		ug/L			10/20/24 00:19	1
Toluene	ND		1.0		ug/L			10/20/24 00:19	1
Trichloroethene	ND		1.0		ug/L			10/20/24 00:19	1
Xylenes, Total	ND		2.0		ug/L			10/20/24 00:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		80 - 120		10/20/24 00:19	1
4-Bromofluorobenzene (Surr)	101		80 - 120		10/20/24 00:19	1
Dibromofluoromethane (Surr)	99		80 - 120		10/20/24 00:19	1
Toluene-d8 (Surr)	100		80 - 120		10/20/24 00:19	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.48		0.21		mg/L		10/21/24 08:28	10/22/24 23:31	1
Motor Oil (>C24-C36)	ND		0.37		mg/L		10/21/24 08:28	10/22/24 23:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	86		50 - 150	10/21/24 08:28	10/22/24 23:31	1

Client Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Client Sample ID: MW-96

Lab Sample ID: 580-144985-10

Date Collected: 10/17/24 12:30

Matrix: Water

Date Received: 10/18/24 09:50

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			10/20/24 00:39	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			10/20/24 00:39	1
1,2-Dibromoethane	ND		1.0		ug/L			10/20/24 00:39	1
1,2-Dichloroethane	ND		1.0		ug/L			10/20/24 00:39	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/20/24 00:39	1
2-Butanone	ND		15		ug/L			10/20/24 00:39	1
Acetone	ND		15		ug/L			10/20/24 00:39	1
Benzene	ND		1.0		ug/L			10/20/24 00:39	1
Carbon disulfide	ND		1.0		ug/L			10/20/24 00:39	1
Chlorobenzene	ND		1.0		ug/L			10/20/24 00:39	1
Chloroform	ND		1.0		ug/L			10/20/24 00:39	1
Ethylbenzene	ND		1.0		ug/L			10/20/24 00:39	1
n-Butylbenzene	ND		1.0		ug/L			10/20/24 00:39	1
N-Propylbenzene	ND		1.0		ug/L			10/20/24 00:39	1
p-Isopropyltoluene	ND		1.0		ug/L			10/20/24 00:39	1
Styrene	ND		1.0		ug/L			10/20/24 00:39	1
Toluene	ND		1.0		ug/L			10/20/24 00:39	1
Trichloroethene	ND		1.0		ug/L			10/20/24 00:39	1
Xylenes, Total	ND		2.0		ug/L			10/20/24 00:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 120		10/20/24 00:39	1
4-Bromofluorobenzene (Surr)	101		80 - 120		10/20/24 00:39	1
Dibromofluoromethane (Surr)	101		80 - 120		10/20/24 00:39	1
Toluene-d8 (Surr)	100		80 - 120		10/20/24 00:39	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.19		mg/L		10/21/24 08:28	10/22/24 23:51	1
Motor Oil (>C24-C36)	ND		0.34		mg/L		10/21/24 08:28	10/22/24 23:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	79		50 - 150	10/21/24 08:28	10/22/24 23:51	1

Client Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Client Sample ID: MW-63

Lab Sample ID: 580-144985-11

Date Collected: 10/17/24 11:20

Matrix: Water

Date Received: 10/18/24 09:50

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			10/20/24 01:00	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			10/20/24 01:00	1
1,2-Dibromoethane	ND		1.0		ug/L			10/20/24 01:00	1
1,2-Dichloroethane	ND		1.0		ug/L			10/20/24 01:00	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/20/24 01:00	1
2-Butanone	ND		15		ug/L			10/20/24 01:00	1
Acetone	ND		15		ug/L			10/20/24 01:00	1
Benzene	ND		1.0		ug/L			10/20/24 01:00	1
Carbon disulfide	ND		1.0		ug/L			10/20/24 01:00	1
Chlorobenzene	ND		1.0		ug/L			10/20/24 01:00	1
Chloroform	ND		1.0		ug/L			10/20/24 01:00	1
Ethylbenzene	ND		1.0		ug/L			10/20/24 01:00	1
n-Butylbenzene	22		1.0		ug/L			10/20/24 01:00	1
N-Propylbenzene	17		1.0		ug/L			10/20/24 01:00	1
p-Isopropyltoluene	ND		1.0		ug/L			10/20/24 01:00	1
Styrene	ND		1.0		ug/L			10/20/24 01:00	1
Toluene	ND		1.0		ug/L			10/20/24 01:00	1
Trichloroethene	ND		1.0		ug/L			10/20/24 01:00	1
Xylenes, Total	ND		2.0		ug/L			10/20/24 01:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		80 - 120		10/20/24 01:00	1
4-Bromofluorobenzene (Surr)	107		80 - 120		10/20/24 01:00	1
Dibromofluoromethane (Surr)	100		80 - 120		10/20/24 01:00	1
Toluene-d8 (Surr)	99		80 - 120		10/20/24 01:00	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	21		0.20		mg/L		10/21/24 08:28	10/23/24 00:31	1
Motor Oil (>C24-C36)	1.6		0.34		mg/L		10/21/24 08:28	10/23/24 00:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	172	S1+	50 - 150	10/21/24 08:28	10/23/24 00:31	1

Client Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Client Sample ID: MW-98

Lab Sample ID: 580-144985-12

Date Collected: 10/17/24 11:25

Matrix: Water

Date Received: 10/18/24 09:50

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			10/23/24 20:57	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			10/23/24 20:57	1
1,2-Dibromoethane	ND		1.0		ug/L			10/23/24 20:57	1
1,2-Dichloroethane	ND		1.0		ug/L			10/23/24 20:57	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/23/24 20:57	1
2-Butanone	ND		15		ug/L			10/23/24 20:57	1
Acetone	ND		15		ug/L			10/23/24 20:57	1
Benzene	ND		1.0		ug/L			10/23/24 20:57	1
Carbon disulfide	ND		1.0		ug/L			10/23/24 20:57	1
Chlorobenzene	ND		1.0		ug/L			10/23/24 20:57	1
Chloroform	ND		1.0		ug/L			10/23/24 20:57	1
Ethylbenzene	ND		1.0		ug/L			10/23/24 20:57	1
n-Butylbenzene	ND		1.0		ug/L			10/23/24 20:57	1
N-Propylbenzene	ND		1.0		ug/L			10/23/24 20:57	1
p-Isopropyltoluene	ND		1.0		ug/L			10/23/24 20:57	1
Styrene	ND		1.0		ug/L			10/23/24 20:57	1
Toluene	ND		1.0		ug/L			10/23/24 20:57	1
Trichloroethene	ND		1.0		ug/L			10/23/24 20:57	1
Xylenes, Total	ND		2.0		ug/L			10/23/24 20:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 120		10/23/24 20:57	1
4-Bromofluorobenzene (Surr)	101		80 - 120		10/23/24 20:57	1
Dibromofluoromethane (Surr)	103		80 - 120		10/23/24 20:57	1
Toluene-d8 (Surr)	104		80 - 120		10/23/24 20:57	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.34		0.20		mg/L		10/22/24 08:33	10/23/24 17:45	1
Motor Oil (>C24-C36)	0.37		0.35		mg/L		10/22/24 08:33	10/23/24 17:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	85		50 - 150	10/22/24 08:33	10/23/24 17:45	1

Client Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Client Sample ID: ALL4-FEB-1

Lab Sample ID: 580-144985-13

Date Collected: 10/16/24 10:20

Matrix: Water

Date Received: 10/18/24 09:50

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			10/23/24 10:07	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			10/23/24 10:07	1
1,2-Dibromoethane	ND		1.0		ug/L			10/23/24 10:07	1
1,2-Dichloroethane	ND		1.0		ug/L			10/23/24 10:07	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/23/24 10:07	1
2-Butanone	ND		15		ug/L			10/23/24 10:07	1
Acetone	ND		15		ug/L			10/23/24 10:07	1
Benzene	ND		1.0		ug/L			10/23/24 10:07	1
Carbon disulfide	ND		1.0		ug/L			10/23/24 10:07	1
Chlorobenzene	ND		1.0		ug/L			10/23/24 10:07	1
Chloroform	ND		1.0		ug/L			10/23/24 10:07	1
Ethylbenzene	ND		1.0		ug/L			10/23/24 10:07	1
n-Butylbenzene	ND		1.0		ug/L			10/23/24 10:07	1
N-Propylbenzene	ND		1.0		ug/L			10/23/24 10:07	1
p-Isopropyltoluene	ND		1.0		ug/L			10/23/24 10:07	1
Styrene	ND		1.0		ug/L			10/23/24 10:07	1
Toluene	ND		1.0		ug/L			10/23/24 10:07	1
Trichloroethene	ND		1.0		ug/L			10/23/24 10:07	1
Xylenes, Total	ND		2.0		ug/L			10/23/24 10:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		80 - 120		10/23/24 10:07	1
4-Bromofluorobenzene (Surr)	104		80 - 120		10/23/24 10:07	1
Dibromofluoromethane (Surr)	110		80 - 120		10/23/24 10:07	1
Toluene-d8 (Surr)	97		80 - 120		10/23/24 10:07	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.19		mg/L		10/22/24 08:33	10/23/24 16:04	1
Motor Oil (>C24-C36)	ND		0.34		mg/L		10/22/24 08:33	10/23/24 16:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	87		50 - 150	10/22/24 08:33	10/23/24 16:04	1

Client Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Client Sample ID: ALL4-DUP-1

Lab Sample ID: 580-144985-14

Date Collected: 10/16/24 10:00

Matrix: Water

Date Received: 10/18/24 09:50

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			10/22/24 06:36	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			10/22/24 06:36	1
1,2-Dibromoethane	ND	*1	1.0		ug/L			10/22/24 06:36	1
1,2-Dichloroethane	13		1.0		ug/L			10/22/24 06:36	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/22/24 06:36	1
2-Butanone	ND		15		ug/L			10/22/24 06:36	1
Acetone	ND		15		ug/L			10/22/24 06:36	1
Benzene	ND		1.0		ug/L			10/22/24 06:36	1
Carbon disulfide	ND		1.0		ug/L			10/22/24 06:36	1
Chlorobenzene	ND		1.0		ug/L			10/22/24 06:36	1
Chloroform	ND		1.0		ug/L			10/22/24 06:36	1
Ethylbenzene	ND		1.0		ug/L			10/22/24 06:36	1
n-Butylbenzene	ND		1.0		ug/L			10/22/24 06:36	1
N-Propylbenzene	ND		1.0		ug/L			10/22/24 06:36	1
p-Isopropyltoluene	ND		1.0		ug/L			10/22/24 06:36	1
Styrene	ND		1.0		ug/L			10/22/24 06:36	1
Toluene	ND		1.0		ug/L			10/22/24 06:36	1
Trichloroethene	ND		1.0		ug/L			10/22/24 06:36	1
Xylenes, Total	ND		2.0		ug/L			10/22/24 06:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		80 - 120		10/22/24 06:36	1
4-Bromofluorobenzene (Surr)	104		80 - 120		10/22/24 06:36	1
Dibromofluoromethane (Surr)	109		80 - 120		10/22/24 06:36	1
Toluene-d8 (Surr)	97		80 - 120		10/22/24 06:36	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.21		0.20		mg/L		10/22/24 08:33	10/23/24 16:25	1
Motor Oil (>C24-C36)	ND		0.35		mg/L		10/22/24 08:33	10/23/24 16:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	93		50 - 150	10/22/24 08:33	10/23/24 16:25	1

Client Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Client Sample ID: Trip Blank

Lab Sample ID: 580-144985-15

Date Collected: 10/17/24 00:00

Matrix: Water

Date Received: 10/18/24 09:50

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			10/23/24 05:06	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			10/23/24 05:06	1
1,2-Dibromoethane	ND		1.0		ug/L			10/23/24 05:06	1
1,2-Dichloroethane	ND		1.0		ug/L			10/23/24 05:06	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/23/24 05:06	1
2-Butanone	ND		15		ug/L			10/23/24 05:06	1
Acetone	ND		15		ug/L			10/23/24 05:06	1
Benzene	ND		1.0		ug/L			10/23/24 05:06	1
Carbon disulfide	ND		1.0		ug/L			10/23/24 05:06	1
Chlorobenzene	ND		1.0		ug/L			10/23/24 05:06	1
Chloroform	ND		1.0		ug/L			10/23/24 05:06	1
Ethylbenzene	ND		1.0		ug/L			10/23/24 05:06	1
n-Butylbenzene	ND		1.0		ug/L			10/23/24 05:06	1
N-Propylbenzene	ND		1.0		ug/L			10/23/24 05:06	1
p-Isopropyltoluene	ND		1.0		ug/L			10/23/24 05:06	1
Styrene	ND		1.0		ug/L			10/23/24 05:06	1
Toluene	ND		1.0		ug/L			10/23/24 05:06	1
Trichloroethene	ND		1.0		ug/L			10/23/24 05:06	1
Xylenes, Total	ND		2.0		ug/L			10/23/24 05:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		10/23/24 05:06	1
4-Bromofluorobenzene (Surr)	102		80 - 120		10/23/24 05:06	1
Dibromofluoromethane (Surr)	103		80 - 120		10/23/24 05:06	1
Toluene-d8 (Surr)	98		80 - 120		10/23/24 05:06	1

QC Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 580-475373/11

Matrix: Water

Analysis Batch: 475373

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			10/19/24 21:32	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			10/19/24 21:32	1
1,2-Dibromoethane	ND		1.0		ug/L			10/19/24 21:32	1
1,2-Dichloroethane	ND		1.0		ug/L			10/19/24 21:32	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/19/24 21:32	1
2-Butanone	ND		15		ug/L			10/19/24 21:32	1
Acetone	ND		15		ug/L			10/19/24 21:32	1
Benzene	ND		1.0		ug/L			10/19/24 21:32	1
Carbon disulfide	ND		1.0		ug/L			10/19/24 21:32	1
Chlorobenzene	ND		1.0		ug/L			10/19/24 21:32	1
Chloroform	ND		1.0		ug/L			10/19/24 21:32	1
Ethylbenzene	ND		1.0		ug/L			10/19/24 21:32	1
n-Butylbenzene	ND		1.0		ug/L			10/19/24 21:32	1
N-Propylbenzene	ND		1.0		ug/L			10/19/24 21:32	1
p-Isopropyltoluene	ND		1.0		ug/L			10/19/24 21:32	1
Styrene	ND		1.0		ug/L			10/19/24 21:32	1
Toluene	ND		1.0		ug/L			10/19/24 21:32	1
Trichloroethene	ND		1.0		ug/L			10/19/24 21:32	1
Xylenes, Total	ND		2.0		ug/L			10/19/24 21:32	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		80 - 120		10/19/24 21:32	1
4-Bromofluorobenzene (Surr)	100		80 - 120		10/19/24 21:32	1
Dibromofluoromethane (Surr)	100		80 - 120		10/19/24 21:32	1
Toluene-d8 (Surr)	100		80 - 120		10/19/24 21:32	1

Lab Sample ID: LCS 580-475373/8

Matrix: Water

Analysis Batch: 475373

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	10.0	9.81		ug/L		98	74 - 130
1,2,4-Trimethylbenzene	10.0	9.98		ug/L		100	80 - 120
1,2-Dibromoethane	10.0	9.98		ug/L		100	79 - 126
1,2-Dichloroethane	10.0	9.14		ug/L		91	69 - 126
1,3,5-Trimethylbenzene	10.0	9.92		ug/L		99	80 - 122
2-Butanone	50.0	49.2		ug/L		98	65 - 137
Acetone	50.0	50.4		ug/L		101	44 - 150
Benzene	10.0	11.0		ug/L		110	80 - 122
Carbon disulfide	10.0	10.6		ug/L		106	63 - 134
Chlorobenzene	10.0	10.6		ug/L		106	80 - 120
Chloroform	10.0	10.7		ug/L		107	78 - 127
Ethylbenzene	10.0	9.63		ug/L		96	80 - 120
m-Xylene & p-Xylene	10.0	9.52		ug/L		95	80 - 120
n-Butylbenzene	10.0	9.11		ug/L		91	57 - 133
N-Propylbenzene	10.0	9.80		ug/L		98	80 - 122
o-Xylene	10.0	9.48		ug/L		95	80 - 120
p-Isopropyltoluene	10.0	9.35		ug/L		93	77 - 126

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QC Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

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

Lab Sample ID: LCS 580-475373/8

Matrix: Water

Analysis Batch: 475373

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Styrene	10.0	9.82		ug/L		98	76 - 122
Toluene	10.0	10.1		ug/L		101	80 - 120
Trichloroethene	10.0	9.98		ug/L		100	80 - 125
Xylenes, Total	20.0	19.0		ug/L		95	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		80 - 120
4-Bromofluorobenzene (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	99		80 - 120
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: LCSD 580-475373/9

Matrix: Water

Analysis Batch: 475373

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	10.0	9.90		ug/L		99	74 - 130	1	19
1,2,4-Trimethylbenzene	10.0	9.85		ug/L		98	80 - 120	1	16
1,2-Dibromoethane	10.0	9.67		ug/L		97	79 - 126	3	12
1,2-Dichloroethane	10.0	9.24		ug/L		92	69 - 126	1	11
1,3,5-Trimethylbenzene	10.0	9.56		ug/L		96	80 - 122	4	21
2-Butanone	50.0	49.6		ug/L		99	65 - 137	1	34
Acetone	50.0	53.5		ug/L		107	44 - 150	6	33
Benzene	10.0	10.7		ug/L		107	80 - 122	2	14
Carbon disulfide	10.0	10.5		ug/L		105	63 - 134	0	24
Chlorobenzene	10.0	10.6		ug/L		106	80 - 120	0	10
Chloroform	10.0	10.7		ug/L		107	78 - 127	0	14
Ethylbenzene	10.0	9.64		ug/L		96	80 - 120	0	14
m-Xylene & p-Xylene	10.0	9.43		ug/L		94	80 - 120	1	14
n-Butylbenzene	10.0	8.97		ug/L		90	57 - 133	2	14
N-Propylbenzene	10.0	9.54		ug/L		95	80 - 122	3	22
o-Xylene	10.0	9.49		ug/L		95	80 - 120	0	16
p-Isopropyltoluene	10.0	9.16		ug/L		92	77 - 126	2	20
Styrene	10.0	9.69		ug/L		97	76 - 122	1	16
Toluene	10.0	10.1		ug/L		101	80 - 120	1	13
Trichloroethene	10.0	9.74		ug/L		97	80 - 125	2	13
Xylenes, Total	20.0	18.9		ug/L		95	80 - 120	0	16

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	101		80 - 120
Toluene-d8 (Surr)	99		80 - 120

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QC Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

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

Lab Sample ID: MB 580-475472/7

Matrix: Water

Analysis Batch: 475472

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			10/22/24 03:08	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			10/22/24 03:08	1
1,2-Dibromoethane	ND		1.0		ug/L			10/22/24 03:08	1
1,2-Dichloroethane	ND		1.0		ug/L			10/22/24 03:08	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/22/24 03:08	1
2-Butanone	ND		15		ug/L			10/22/24 03:08	1
Acetone	ND		15		ug/L			10/22/24 03:08	1
Benzene	ND		1.0		ug/L			10/22/24 03:08	1
Carbon disulfide	ND		1.0		ug/L			10/22/24 03:08	1
Chlorobenzene	ND		1.0		ug/L			10/22/24 03:08	1
Chloroform	ND		1.0		ug/L			10/22/24 03:08	1
Ethylbenzene	ND		1.0		ug/L			10/22/24 03:08	1
n-Butylbenzene	ND		1.0		ug/L			10/22/24 03:08	1
N-Propylbenzene	ND		1.0		ug/L			10/22/24 03:08	1
p-Isopropyltoluene	ND		1.0		ug/L			10/22/24 03:08	1
Styrene	ND		1.0		ug/L			10/22/24 03:08	1
Toluene	ND		1.0		ug/L			10/22/24 03:08	1
Trichloroethene	ND		1.0		ug/L			10/22/24 03:08	1
Xylenes, Total	ND		2.0		ug/L			10/22/24 03:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		80 - 120		10/22/24 03:08	1
4-Bromofluorobenzene (Surr)	105		80 - 120		10/22/24 03:08	1
Dibromofluoromethane (Surr)	110		80 - 120		10/22/24 03:08	1
Toluene-d8 (Surr)	98		80 - 120		10/22/24 03:08	1

Lab Sample ID: LCS 580-475472/4

Matrix: Water

Analysis Batch: 475472

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	5.00	5.75		ug/L		115	74 - 130
1,2,4-Trimethylbenzene	5.00	4.94		ug/L		99	80 - 120
1,2-Dibromoethane	5.00	5.41		ug/L		108	79 - 126
1,2-Dichloroethane	5.00	5.15		ug/L		103	69 - 126
1,3,5-Trimethylbenzene	5.00	5.11		ug/L		102	80 - 122
2-Butanone	25.0	25.1		ug/L		101	65 - 137
Acetone	25.0	27.9		ug/L		112	44 - 150
Benzene	5.00	5.38		ug/L		108	80 - 122
Carbon disulfide	5.00	6.09		ug/L		122	63 - 134
Chlorobenzene	5.00	5.09		ug/L		102	80 - 120
Chloroform	5.00	5.48		ug/L		110	78 - 127
Ethylbenzene	5.00	5.03		ug/L		101	80 - 120
m-Xylene & p-Xylene	5.00	5.00		ug/L		100	80 - 120
n-Butylbenzene	5.00	5.15		ug/L		103	57 - 133
N-Propylbenzene	5.00	5.05		ug/L		101	80 - 122
o-Xylene	5.00	5.05		ug/L		101	80 - 120
p-Isopropyltoluene	5.00	5.16		ug/L		103	77 - 126

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QC Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

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

Lab Sample ID: LCS 580-475472/4

Matrix: Water

Analysis Batch: 475472

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Styrene	5.00	5.08		ug/L		102	76 - 122
Toluene	5.00	5.05		ug/L		101	80 - 120
Trichloroethene	5.00	5.24		ug/L		105	80 - 125
Xylenes, Total	10.0	10.1		ug/L		101	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		80 - 120
4-Bromofluorobenzene (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	102		80 - 120
Toluene-d8 (Surr)	98		80 - 120

Lab Sample ID: LCSD 580-475472/5

Matrix: Water

Analysis Batch: 475472

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	5.00	5.31		ug/L		106	74 - 130	8	19
1,2,4-Trimethylbenzene	5.00	4.58		ug/L		92	80 - 120	8	16
1,2-Dibromoethane	5.00	4.77	*1	ug/L		95	79 - 126	13	12
1,2-Dichloroethane	5.00	4.85		ug/L		97	69 - 126	6	11
1,3,5-Trimethylbenzene	5.00	4.73		ug/L		95	80 - 122	8	21
2-Butanone	25.0	21.6		ug/L		86	65 - 137	15	34
Acetone	25.0	26.7		ug/L		107	44 - 150	4	33
Benzene	5.00	5.07		ug/L		101	80 - 122	6	14
Carbon disulfide	5.00	6.10		ug/L		122	63 - 134	0	24
Chlorobenzene	5.00	4.79		ug/L		96	80 - 120	6	10
Chloroform	5.00	5.48		ug/L		110	78 - 127	0	14
Ethylbenzene	5.00	4.73		ug/L		95	80 - 120	6	14
m-Xylene & p-Xylene	5.00	4.74		ug/L		95	80 - 120	6	14
n-Butylbenzene	5.00	4.66		ug/L		93	57 - 133	10	14
N-Propylbenzene	5.00	4.67		ug/L		93	80 - 122	8	22
o-Xylene	5.00	4.86		ug/L		97	80 - 120	4	16
p-Isopropyltoluene	5.00	4.76		ug/L		95	77 - 126	8	20
Styrene	5.00	4.89		ug/L		98	76 - 122	4	16
Toluene	5.00	4.64		ug/L		93	80 - 120	9	13
Trichloroethene	5.00	4.72		ug/L		94	80 - 125	10	13
Xylenes, Total	10.0	9.60		ug/L		96	80 - 120	5	16

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105		80 - 120
4-Bromofluorobenzene (Surr)	104		80 - 120
Dibromofluoromethane (Surr)	108		80 - 120
Toluene-d8 (Surr)	99		80 - 120

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QC Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

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

Lab Sample ID: MB 580-475599/7

Matrix: Water

Analysis Batch: 475599

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			10/23/24 03:57	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			10/23/24 03:57	1
1,2-Dibromoethane	ND		1.0		ug/L			10/23/24 03:57	1
1,2-Dichloroethane	ND		1.0		ug/L			10/23/24 03:57	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/23/24 03:57	1
2-Butanone	ND		15		ug/L			10/23/24 03:57	1
Acetone	ND		15		ug/L			10/23/24 03:57	1
Benzene	ND		1.0		ug/L			10/23/24 03:57	1
Carbon disulfide	ND		1.0		ug/L			10/23/24 03:57	1
Chlorobenzene	ND		1.0		ug/L			10/23/24 03:57	1
Chloroform	ND		1.0		ug/L			10/23/24 03:57	1
Ethylbenzene	ND		1.0		ug/L			10/23/24 03:57	1
n-Butylbenzene	ND		1.0		ug/L			10/23/24 03:57	1
N-Propylbenzene	ND		1.0		ug/L			10/23/24 03:57	1
p-Isopropyltoluene	ND		1.0		ug/L			10/23/24 03:57	1
Styrene	ND		1.0		ug/L			10/23/24 03:57	1
Toluene	ND		1.0		ug/L			10/23/24 03:57	1
Trichloroethene	ND		1.0		ug/L			10/23/24 03:57	1
Xylenes, Total	ND		2.0		ug/L			10/23/24 03:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 120		10/23/24 03:57	1
4-Bromofluorobenzene (Surr)	102		80 - 120		10/23/24 03:57	1
Dibromofluoromethane (Surr)	103		80 - 120		10/23/24 03:57	1
Toluene-d8 (Surr)	98		80 - 120		10/23/24 03:57	1

Lab Sample ID: LCS 580-475599/4

Matrix: Water

Analysis Batch: 475599

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	5.00	5.68		ug/L		114	74 - 130
1,2,4-Trimethylbenzene	5.00	4.72		ug/L		94	80 - 120
1,2-Dibromoethane	5.00	4.95		ug/L		99	79 - 126
1,2-Dichloroethane	5.00	5.00		ug/L		100	69 - 126
1,3,5-Trimethylbenzene	5.00	4.92		ug/L		98	80 - 122
2-Butanone	25.0	22.3		ug/L		89	65 - 137
Acetone	25.0	25.0		ug/L		100	44 - 150
Benzene	5.00	5.40		ug/L		108	80 - 122
Carbon disulfide	5.00	6.14		ug/L		123	63 - 134
Chlorobenzene	5.00	5.01		ug/L		100	80 - 120
Chloroform	5.00	5.47		ug/L		109	78 - 127
Ethylbenzene	5.00	4.99		ug/L		100	80 - 120
m-Xylene & p-Xylene	5.00	4.89		ug/L		98	80 - 120
n-Butylbenzene	5.00	4.93		ug/L		99	57 - 133
N-Propylbenzene	5.00	4.98		ug/L		100	80 - 122
o-Xylene	5.00	4.96		ug/L		99	80 - 120
p-Isopropyltoluene	5.00	5.03		ug/L		101	77 - 126

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QC Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

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

Lab Sample ID: LCS 580-475599/4

Matrix: Water

Analysis Batch: 475599

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Styrene	5.00	5.07		ug/L		101	76 - 122
Toluene	5.00	4.97		ug/L		99	80 - 120
Trichloroethene	5.00	5.36		ug/L		107	80 - 125
Xylenes, Total	10.0	9.85		ug/L		99	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		80 - 120
4-Bromofluorobenzene (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	102		80 - 120
Toluene-d8 (Surr)	98		80 - 120

Lab Sample ID: LCSD 580-475599/5

Matrix: Water

Analysis Batch: 475599

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	5.00	5.46		ug/L		109	74 - 130	4	19
1,2,4-Trimethylbenzene	5.00	4.88		ug/L		98	80 - 120	3	16
1,2-Dibromoethane	5.00	4.92		ug/L		98	79 - 126	1	12
1,2-Dichloroethane	5.00	4.81		ug/L		96	69 - 126	4	11
1,3,5-Trimethylbenzene	5.00	5.00		ug/L		100	80 - 122	2	21
2-Butanone	25.0	22.3		ug/L		89	65 - 137	0	34
Acetone	25.0	24.3		ug/L		97	44 - 150	3	33
Benzene	5.00	5.28		ug/L		106	80 - 122	2	14
Carbon disulfide	5.00	5.94		ug/L		119	63 - 134	3	24
Chlorobenzene	5.00	4.89		ug/L		98	80 - 120	2	10
Chloroform	5.00	5.37		ug/L		107	78 - 127	2	14
Ethylbenzene	5.00	4.90		ug/L		98	80 - 120	2	14
m-Xylene & p-Xylene	5.00	4.85		ug/L		97	80 - 120	1	14
n-Butylbenzene	5.00	5.05		ug/L		101	57 - 133	2	14
N-Propylbenzene	5.00	5.05		ug/L		101	80 - 122	1	22
o-Xylene	5.00	4.97		ug/L		99	80 - 120	0	16
p-Isopropyltoluene	5.00	5.12		ug/L		102	77 - 126	2	20
Styrene	5.00	4.97		ug/L		99	76 - 122	2	16
Toluene	5.00	4.87		ug/L		97	80 - 120	2	13
Trichloroethene	5.00	5.17		ug/L		103	80 - 125	4	13
Xylenes, Total	10.0	9.82		ug/L		98	80 - 120	0	16

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	103		80 - 120
Toluene-d8 (Surr)	99		80 - 120

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QC Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

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

Lab Sample ID: MB 580-475720/7

Matrix: Water

Analysis Batch: 475720

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			10/23/24 19:04	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			10/23/24 19:04	1
1,2-Dibromoethane	ND		1.0		ug/L			10/23/24 19:04	1
1,2-Dichloroethane	ND		1.0		ug/L			10/23/24 19:04	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/23/24 19:04	1
2-Butanone	ND		15		ug/L			10/23/24 19:04	1
Acetone	ND		15		ug/L			10/23/24 19:04	1
Benzene	ND		1.0		ug/L			10/23/24 19:04	1
Carbon disulfide	ND		1.0		ug/L			10/23/24 19:04	1
Chlorobenzene	ND		1.0		ug/L			10/23/24 19:04	1
Chloroform	ND		1.0		ug/L			10/23/24 19:04	1
Ethylbenzene	ND		1.0		ug/L			10/23/24 19:04	1
n-Butylbenzene	ND		1.0		ug/L			10/23/24 19:04	1
N-Propylbenzene	ND		1.0		ug/L			10/23/24 19:04	1
p-Isopropyltoluene	ND		1.0		ug/L			10/23/24 19:04	1
Styrene	ND		1.0		ug/L			10/23/24 19:04	1
Toluene	ND		1.0		ug/L			10/23/24 19:04	1
Trichloroethene	ND		1.0		ug/L			10/23/24 19:04	1
Xylenes, Total	ND		2.0		ug/L			10/23/24 19:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		10/23/24 19:04	1
4-Bromofluorobenzene (Surr)	100		80 - 120		10/23/24 19:04	1
Dibromofluoromethane (Surr)	100		80 - 120		10/23/24 19:04	1
Toluene-d8 (Surr)	105		80 - 120		10/23/24 19:04	1

Lab Sample ID: LCS 580-475720/4

Matrix: Water

Analysis Batch: 475720

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	10.0	10.5		ug/L		105	74 - 130
1,2,4-Trimethylbenzene	10.0	11.0		ug/L		110	80 - 120
1,2-Dibromoethane	10.0	11.0		ug/L		110	79 - 126
1,2-Dichloroethane	10.0	9.73		ug/L		97	69 - 126
1,3,5-Trimethylbenzene	10.0	11.0		ug/L		110	80 - 122
2-Butanone	50.0	54.7		ug/L		109	65 - 137
Acetone	50.0	56.9		ug/L		114	44 - 150
Benzene	10.0	11.4		ug/L		114	80 - 122
Carbon disulfide	10.0	11.4		ug/L		114	63 - 134
Chlorobenzene	10.0	12.0		ug/L		120	80 - 120
Chloroform	10.0	11.3		ug/L		113	78 - 127
Ethylbenzene	10.0	10.8		ug/L		108	80 - 120
m-Xylene & p-Xylene	10.0	10.7		ug/L		107	80 - 120
n-Butylbenzene	10.0	11.0		ug/L		110	57 - 133
N-Propylbenzene	10.0	10.9		ug/L		109	80 - 122
o-Xylene	10.0	10.9		ug/L		109	80 - 120
p-Isopropyltoluene	10.0	10.9		ug/L		109	77 - 126

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QC Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

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

Lab Sample ID: LCS 580-475720/4

Matrix: Water

Analysis Batch: 475720

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Styrene	10.0	11.3		ug/L		113	76 - 122
Toluene	10.0	11.3		ug/L		113	80 - 120
Trichloroethene	10.0	10.5		ug/L		105	80 - 125
Xylenes, Total	20.0	21.6		ug/L		108	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		80 - 120
4-Bromofluorobenzene (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	100		80 - 120
Toluene-d8 (Surr)	103		80 - 120

Lab Sample ID: LCSD 580-475720/5

Matrix: Water

Analysis Batch: 475720

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	10.0	10.2		ug/L		102	74 - 130	3	19
1,2,4-Trimethylbenzene	10.0	10.8		ug/L		108	80 - 120	2	16
1,2-Dibromoethane	10.0	10.8		ug/L		108	79 - 126	2	12
1,2-Dichloroethane	10.0	9.13		ug/L		91	69 - 126	6	11
1,3,5-Trimethylbenzene	10.0	10.6		ug/L		106	80 - 122	4	21
2-Butanone	50.0	52.8		ug/L		106	65 - 137	4	34
Acetone	50.0	54.4		ug/L		109	44 - 150	4	33
Benzene	10.0	11.0		ug/L		110	80 - 122	4	14
Carbon disulfide	10.0	10.8		ug/L		108	63 - 134	5	24
Chlorobenzene	10.0	11.5		ug/L		115	80 - 120	4	10
Chloroform	10.0	10.7		ug/L		107	78 - 127	5	14
Ethylbenzene	10.0	10.4		ug/L		104	80 - 120	4	14
m-Xylene & p-Xylene	10.0	10.4		ug/L		104	80 - 120	3	14
n-Butylbenzene	10.0	9.86		ug/L		99	57 - 133	11	14
N-Propylbenzene	10.0	10.3		ug/L		103	80 - 122	6	22
o-Xylene	10.0	10.3		ug/L		103	80 - 120	6	16
p-Isopropyltoluene	10.0	10.3		ug/L		103	77 - 126	6	20
Styrene	10.0	10.8		ug/L		108	76 - 122	4	16
Toluene	10.0	11.0		ug/L		110	80 - 120	3	13
Trichloroethene	10.0	9.93		ug/L		99	80 - 125	6	13
Xylenes, Total	20.0	20.7		ug/L		104	80 - 120	4	16

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	99		80 - 120
Toluene-d8 (Surr)	102		80 - 120

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QC Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-475484/1-A
Matrix: Water
Analysis Batch: 475657

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 475484

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.20		mg/L		10/22/24 08:33	10/23/24 13:24	1
Motor Oil (>C24-C36)	ND		0.35		mg/L		10/22/24 08:33	10/23/24 13:24	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	95		50 - 150				10/22/24 08:33	10/23/24 13:24	1

Lab Sample ID: LCS 580-475484/2-A
Matrix: Water
Analysis Batch: 475657

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 475484

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
#2 Diesel (C10-C24)	4.00	3.80		mg/L		95	50 - 120
Motor Oil (>C24-C36)	4.00	3.89		mg/L		97	64 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
o-Terphenyl	92		50 - 150				

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - RA

Lab Sample ID: MB 580-475382/1-A
Matrix: Water
Analysis Batch: 475532

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 475382

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24) - RA	ND		0.20		mg/L		10/21/24 08:28	10/22/24 21:11	1
Motor Oil (>C24-C36) - RA	ND		0.35		mg/L		10/21/24 08:28	10/22/24 21:11	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl - RA	101		50 - 150				10/21/24 08:28	10/22/24 21:11	1

Lab Sample ID: LCS 580-475382/2-A
Matrix: Water
Analysis Batch: 475532

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 475382

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
#2 Diesel (C10-C24) - RA	4.00	4.06		mg/L		102	50 - 120
Motor Oil (>C24-C36) - RA	4.00	4.15		mg/L		104	64 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
o-Terphenyl - RA	93		50 - 150				

Lab Sample ID: LCSD 580-475382/3-A
Matrix: Water
Analysis Batch: 475532

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 475382

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
#2 Diesel (C10-C24) - RA	4.00	4.17		mg/L		104	50 - 120	3	26
Motor Oil (>C24-C36) - RA	4.00	4.17		mg/L		104	64 - 120	0	24

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QC Sample Results

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - RA (Continued)

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
o-Terphenyl - RA	94		50 - 150

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Lab Chronicle

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Client Sample ID: MW-60

Date Collected: 10/17/24 10:30

Date Received: 10/18/24 09:50

Lab Sample ID: 580-144985-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	475373	TL1	EET SEA	10/19/24 22:34
Total/NA	Prep	3510C			475382	JW	EET SEA	10/21/24 08:28
Total/NA	Analysis	NWTPH-Dx		1	475417	SW	EET SEA	10/22/24 04:33

Client Sample ID: MW-61

Date Collected: 10/16/24 14:30

Date Received: 10/18/24 09:50

Lab Sample ID: 580-144985-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	475472	JBT	EET SEA	10/22/24 05:27
Total/NA	Prep	3510C			475382	JW	EET SEA	10/21/24 08:28
Total/NA	Analysis	NWTPH-Dx		1	475417	SW	EET SEA	10/22/24 03:33

Client Sample ID: MW-64

Date Collected: 10/17/24 11:45

Date Received: 10/18/24 09:50

Lab Sample ID: 580-144985-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	475373	TL1	EET SEA	10/19/24 22:55
Total/NA	Prep	3510C			475382	JW	EET SEA	10/21/24 08:28
Total/NA	Analysis	NWTPH-Dx		1	475417	SW	EET SEA	10/22/24 04:53

Client Sample ID: MW-65

Date Collected: 10/16/24 11:00

Date Received: 10/18/24 09:50

Lab Sample ID: 580-144985-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	475472	JBT	EET SEA	10/22/24 05:50
Total/NA	Prep	3510C			475382	JW	EET SEA	10/21/24 08:28
Total/NA	Analysis	NWTPH-Dx		1	475417	SW	EET SEA	10/22/24 03:53

Client Sample ID: MW-91

Date Collected: 10/16/24 14:00

Date Received: 10/18/24 09:50

Lab Sample ID: 580-144985-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	475472	JBT	EET SEA	10/22/24 06:13
Total/NA	Prep	3510C			475382	JW	EET SEA	10/21/24 08:28
Total/NA	Analysis	NWTPH-Dx		1	475417	SW	EET SEA	10/22/24 04:13

Client Sample ID: MW-92

Date Collected: 10/17/24 09:20

Date Received: 10/18/24 09:50

Lab Sample ID: 580-144985-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	475373	TL1	EET SEA	10/19/24 23:16

Eurofins Seattle

Lab Chronicle

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Client Sample ID: MW-92

Date Collected: 10/17/24 09:20

Date Received: 10/18/24 09:50

Lab Sample ID: 580-144985-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			475382	JW	EET SEA	10/21/24 08:28
Total/NA	Analysis	NWTPH-Dx		1	475417	SW	EET SEA	10/22/24 05:13

Client Sample ID: MW-93

Date Collected: 10/17/24 10:00

Date Received: 10/18/24 09:50

Lab Sample ID: 580-144985-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	475373	TL1	EET SEA	10/19/24 23:37
Total/NA	Prep	3510C			475382	JW	EET SEA	10/21/24 08:28
Total/NA	Analysis	NWTPH-Dx		1	475417	SW	EET SEA	10/22/24 05:33

Client Sample ID: MW-94

Date Collected: 10/17/24 12:00

Date Received: 10/18/24 09:50

Lab Sample ID: 580-144985-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	475373	TL1	EET SEA	10/19/24 23:58
Total/NA	Prep	3510C			475382	JW	EET SEA	10/21/24 08:28
Total/NA	Analysis	NWTPH-Dx		1	475417	SW	EET SEA	10/22/24 05:53

Client Sample ID: MW-95

Date Collected: 10/17/24 12:30

Date Received: 10/18/24 09:50

Lab Sample ID: 580-144985-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	475373	TL1	EET SEA	10/20/24 00:19
Total/NA	Prep	3510C	RA		475382	JW	EET SEA	10/21/24 08:28
Total/NA	Analysis	NWTPH-Dx	RA	1	475532	SW	EET SEA	10/22/24 23:31

Client Sample ID: MW-96

Date Collected: 10/17/24 12:30

Date Received: 10/18/24 09:50

Lab Sample ID: 580-144985-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	475373	TL1	EET SEA	10/20/24 00:39
Total/NA	Prep	3510C	RA		475382	JW	EET SEA	10/21/24 08:28
Total/NA	Analysis	NWTPH-Dx	RA	1	475532	SW	EET SEA	10/22/24 23:51

Client Sample ID: MW-63

Date Collected: 10/17/24 11:20

Date Received: 10/18/24 09:50

Lab Sample ID: 580-144985-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	475373	TL1	EET SEA	10/20/24 01:00

Eurofins Seattle

Lab Chronicle

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Client Sample ID: MW-63

Date Collected: 10/17/24 11:20

Date Received: 10/18/24 09:50

Lab Sample ID: 580-144985-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C	RA		475382	JW	EET SEA	10/21/24 08:28
Total/NA	Analysis	NWTPH-Dx	RA	1	475532	SW	EET SEA	10/23/24 00:31

Client Sample ID: MW-98

Date Collected: 10/17/24 11:25

Date Received: 10/18/24 09:50

Lab Sample ID: 580-144985-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	475720	K1K	EET SEA	10/23/24 20:57
Total/NA	Prep	3510C			475484	JW	EET SEA	10/22/24 08:33
Total/NA	Analysis	NWTPH-Dx		1	475657	SW	EET SEA	10/23/24 17:45

Client Sample ID: ALL4-FEB-1

Date Collected: 10/16/24 10:20

Date Received: 10/18/24 09:50

Lab Sample ID: 580-144985-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	475599	AC	EET SEA	10/23/24 10:07
Total/NA	Prep	3510C			475484	JW	EET SEA	10/22/24 08:33
Total/NA	Analysis	NWTPH-Dx		1	475657	SW	EET SEA	10/23/24 16:04

Client Sample ID: ALL4-DUP-1

Date Collected: 10/16/24 10:00

Date Received: 10/18/24 09:50

Lab Sample ID: 580-144985-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	475472	JBT	EET SEA	10/22/24 06:36
Total/NA	Prep	3510C			475484	JW	EET SEA	10/22/24 08:33
Total/NA	Analysis	NWTPH-Dx		1	475657	SW	EET SEA	10/23/24 16:25

Client Sample ID: Trip Blank

Date Collected: 10/17/24 00:00

Date Received: 10/18/24 09:50

Lab Sample ID: 580-144985-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	475599	AC	EET SEA	10/23/24 05:06

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C788-24	07-13-25

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Sample Summary

Client: ALL4, Inc.
Project/Site: 2024 GW Monitoring - C

Job ID: 580-144985-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-144985-1	MW-60	Water	10/17/24 10:30	10/18/24 09:50
580-144985-2	MW-61	Water	10/16/24 14:30	10/18/24 09:50
580-144985-3	MW-64	Water	10/17/24 11:45	10/18/24 09:50
580-144985-4	MW-65	Water	10/16/24 11:00	10/18/24 09:50
580-144985-5	MW-91	Water	10/16/24 14:00	10/18/24 09:50
580-144985-6	MW-92	Water	10/17/24 09:20	10/18/24 09:50
580-144985-7	MW-93	Water	10/17/24 10:00	10/18/24 09:50
580-144985-8	MW-94	Water	10/17/24 12:00	10/18/24 09:50
580-144985-9	MW-95	Water	10/17/24 12:30	10/18/24 09:50
580-144985-10	MW-96	Water	10/17/24 12:30	10/18/24 09:50
580-144985-11	MW-63	Water	10/17/24 11:20	10/18/24 09:50
580-144985-12	MW-98	Water	10/17/24 11:25	10/18/24 09:50
580-144985-13	ALL4-FEB-1	Water	10/16/24 10:20	10/18/24 09:50
580-144985-14	ALL4-DUP-1	Water	10/16/24 10:00	10/18/24 09:50
580-144985-15	Trip Blank	Water	10/17/24 00:00	10/18/24 09:50

Eurofins ET Northwest - Seattle
5755 8th Street East
Tacoma, WA 98424
Phone (253) 922-2310

Chain of Custody Record

Client Information		Sampler: <i>Vincent Spring</i>		Lab PM: Cruz, Sheri L	Carrier Tracking No(s): FedEX	COC No:
Client Contact: Jim Schneider		Phone: 360-752-9571		E-Mail: Sheri.Cruz@eurofins.com	State of Origin: WA	Page: 2 of 2
Company:		PWSID:		Job #:		
Analysis Requested						
Due Date Requested:						
TAT Requested (days): Standard						
Compliance Project: ☐ Yes ☒ No						
PO #: PO # Bill to ALL4 (FinOps@all4inc.com, Project#: 004531-0010.00)						
Project Name: gary.barkind@hollifrontier.com						
Project #: 2022 GW Monitoring - C						
Site: Washington						
SSOW#:						
Sample Identification						
MW-98		Sample Date	10/17/24	Sample Time	1125	Matrix (V=water, S=solid, O=wastefl, BT=Tissue, As=)
ALL4-FEB-1		Sample Date	10/16/24	Sample Time	1020	Water
ALL4-DUP-1		Sample Date	10/16/24	Sample Time	1000	Water
Trip Blanks		Filled at Lab				
8260 (see attached list)						
NMTPH-Dx						
Perform MS/MSD (Yes or No)						
Field Filtered Sample (Yes or No)						
Total Number of Containers						
Special Instructions/Note:						
Please send results to HPSR (jim.schneider@hfsinc.com) and ALL4 (ellobot@all4inc.com, agempler@all4inc.com).						
Please see attached 8260D Skinner List for required analytes.						
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
Return To Client Disposal By Lab Archive For Months						
Special Instructions/QC Requirements:						
Empty Kit Relinquished by: <i>Jason Everson</i>						
Relinquished by: <i>Jason Everson</i>						
Relinquished by: <i>Jason Everson</i>						
Relinquished by: <i>Jason Everson</i>						
Custody Seals Intact: Custody Seal No.:						
Cooler Temperature(s) °C and Other Remarks:						

Eurofins ET Northwest - Seattle
5755 8th Street East
Tacoma, WA 98424
Phone (253) 922-2310

Chain of Custody Record



Client Information		Sampler:		Lab PM:		Carrier Tracking (Note):		COC No:							
Client Contact:		Phone:		Cruz, Sheri L		FedEx		Page:							
Company:		360-752-9571		Sheri.Cruz@EuroInsel.com		State of Origin:		Page 1 of 2							
HF Sinclair Pugel Sound Refining LLC		PWSID:		Analysis Requested		Job #:		Job #:							
Address:		Due Date Requested:		Preservation Codes:		M - Hexane		M - Hexane							
City:		TAT Requested (days):		Standard		B - N2O		N - None							
State, Zip:		Compliance Project: ☐ Yes ☐ No		Field Filtered Sample (Yes or No)		C - Zn Acetate		O - AsH2O2							
Phone:		PO #, Bill to ALL4 (FINOPS@all4inc.com, Project#:		Perform MS/MS (Yes or No)		D - Nitric Acid		P - Na2O4S							
Email:		WFO #:		8260 (see attached list)		E - NH4SO4		Q - Na2SO3							
2024 GW Monitoring - C		Project #:		NWTPH-Dx		F - MeOH		R - Na2SO3							
Site:		SSOW#:		8260 (see attached list)		G - Anchoir		S - H2SO4							
Washington		Field Filtered Sample (Yes or No)		8260 (see attached list)		H - Acetic Acid		T - TSP Dodecylhydrate							
Sample Identification		Sample Date		Sample Time		Sample Type (C=C=Comp, G=grad)		Matrix (W=Water, S=Soil, O=Overseal, B=Brass, A=Al)		Total Number of containers		Special Instructions/Note:			
MMW-60		10/11/24		1030		G		Water		No		5		Please send results to HFPSR (jim.schneider@hfsr.com) and ALL4 (elbol@all4inc.com, agempler@all4inc.com).	
MMW-61		10/16/24		1430		G		Water		No		5			
MMW-64		10/17/24		145		G		Water		No		5			
MMW-65		10/16/24		1100		G		Water		No		5			
MMW-91		10/16/24		1400		G		Water		No		5			
MMW-92		10/17/24		0920		G		Water		No		5			
MMW-93		10/17/24		1000		G		Water		No		5			
MMW-94		10/17/24		1200		G		Water		No		5			
MMW-95		10/17/24		1230		G		Water		No		5			
MMW-96		10/17/24		1230		G		Water		No		5			
MMW-97		10/17/24		1120		G		Water		No		5			
Possible Hazard Identification		Non-Hazard		Flammable		Skin Irritant		Poison B		Unknown		Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Deliverable Requested: I, II, III, IV, Other (specify)		Return To Client		Disposal By Lab		Archive For		Months							
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:									
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:					
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:					
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:					
Custody Seal Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:											

Ver: 01/16/2019

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10/28/2024

580-14985 Chain of Custody



Thermal ID: 19
 Cooler Dsc: LB
 Acting: R-012
 No. 1
 Blue, Wet, Dry, None
 Other: _____
 Lab Count: _____
 TFS: _____
 Feed: RD

07
 11/10/2024
 Order Desc: B/B
 Packing: B/B
 Unit Seal: No
 Due Inc: Mch, Dry, None
 Other:
 Lab Count:
 I PS:
 Pedest: PPO

Login Sample Receipt Checklist

Client: ALL4, Inc.

Job Number: 580-144985-1

Login Number: 144985

List Source: Eurofins Seattle

List Number: 1

Creator: Groves, Elizabeth

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	